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Elementary Teachers' Perceived Professional Learning Needs for the Inclusive Classroom

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Abstract

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C.A.S, University of Southern Maine, 1998

M.A., University of Michigan, 1971

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Project Study Submitted in Partial Fulfillment

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Abstract

As a result of U.S. federal policy directives mandating inclusion, general education teachers in a rural elementary school in southern Maine were expected to be effective in working in inclusive classrooms with learners with diverse needs; however, teachers were meeting the mandates for inclusion but their students were not meeting the state's annual progress targets. The purpose of this project study was to explore teachers' perceptions of their readiness and needs for professional learning to work with diverse learners in the inclusive classroom. The research questions centered on teachers' beliefs, specific to their preparation and their needs and preferred mode for professional learning. The theoretical framework for this project research consisted of sociocultural and transformative learning theories. A qualitative case study approach was used in which teachers at the school completed online surveys and follow-up e-mail interviews. Twenty-seven of the school's 44 teachers participated in the study. Survey and interview responses were reviewed on a continuous basis during data collection and coded for emergent themes; open-ended data were analyzed using qualitative data analysis software. The key findings were that none of the participants believed they were unprepared for teaching in the inclusive classroom; however, the teachers provided key insights for professional learning related to the challenge of teaching diverse learners. The results of the study might offer guidance to school and district administrators on how to build the capacity of teachers to create classrooms where all learners can succeed and to reduce reliance on separate special instruction. Doing so could help promote social change in the culture of the school by encouraging respect and empathy among students to work together and celebrate their collective successes.

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Section 1: The Problem

Teachers in the United States face increased pressure to help all students meet common standards, along with legal directives for inclusion of learners with special needs in the general education classroom. Many teachers do not believe they are prepared for these challenges. In this section, I focus on the problem of meeting the diverse needs of students included in the inclusive classroom and yet addressing the state performance targets for all students, and the implications and significance of this problem locally and nationally. The section also includes the research questions that were the basis for the study, a literature review, and a discussion of the implications of the project study.

The Local Problem

Teachers in a rural elementary school in southern Maine faced the challenge of meeting the increased diversity of student needs in their inclusive general education classrooms and having all students meet the state's performance expectations which were in sync with guidelines set by the No Child Left Behind Act of 2001 (NCLB) and, most recently, the Every Child Succeeds Act of 2015 (ESSA). The problem was that a significant portion of the students were not meeting the targets set by the state. The most recent state report for the school showed one third of students were not meeting the state benchmarks, especially in the subgroup of students with disabilities in which only slightly more than 9% met or exceeded state performance targets (Maine Department of Education, 2018a). The policy implication was that, through inclusion, teachers would be effective in helping all of their students to learn, including those with diverse learning needs, and be successful in meeting state benchmarks for student academic performance.

Based on the student performance reports, the teachers in the project study school had not been as effective as necessary to meet state targets. Based on the performance data, the school leaders indicated a need to discover local teachers' perceptions regarding what was required to address the inclusive classroom challenge at the school and teachers' preferred mode for professional learning.

The impetus for inclusion of special education students in general education classes emerged from several federal policies in the United States. The Individuals with Disabilities Education Act (IDEA) reauthorized in 2004 as the Individuals with Disabilities Education Improvement Act included stronger language specifying that the first consideration of least restrictive environment for an identified special education student must be the general education classroom (IDEA, 1997; Individuals with Disabilities Education Improvement Act, 2004). Other contributing policy pressures for inclusive education came in part from the directives of NCLB in 2001 to unify the achievement expectations for all students and ESSA in 2015, which was a reauthorization of the Elementary and Secondary Education Act of 1965.

Another national directive came from the President's Commission on Excellence in Special Education (2002). The recommendations from this commission led to further scrutiny of the least restrictive environment for students and encouragement of a prereferral intervention process and data collection on performance for general education students prior to referral to special education, i.e., response to intervention (President's Commission on Excellence in Special Education, 2002). This prereferral intervention language was repeated in the 2004 reauthorization of the IDEA of 1997, the Individuals

with Disabilities Education Improvement Act of 2004, and its amendment in ESSA of 2015. Thus, the inclusion of special education and diverse learners in the general education curriculum has come from several policies. A result is that teachers are expected to teach many different types of students or learners with diverse learning needs.

The U.S. Department of Education's National Center for Education Statistics (NCES; 2018) reported that 13% of the student population in the United States were identified for special education services under IDEA. NCES reported that this percentage remained at 13% for 4 years through the most recent year reported, the 2015-2016 school year. NCES also reported that students identified with special needs are increasingly participating in general education classes for most of their school day. According to the most recently available statistics from NCES, at least 63% of those students identified for special education are in regular education classes for at least 80% of their day (U.S. Department of Education's National Center for Education Statistics, NCES, 2018). This percentage has been trending upward.

Despite the identified need and the standards in place, there has been a gap in practice in the preparation for and availability of professional learning for teachers to develop the skills needed to meet the increased diversity and needs of students in the general education classroom. Blanton, Pugach, and Boveda (2018) examined the influences of policy and time on the traditional separation of regular education and special education programming. Blanton et al. proposed that progress in inclusive education was hampered by a history of practices that had not led to effective teacher

reform to strengthen inclusive approaches for the diverse student needs that teachers encounter. The failed intersection of policy favoring inclusion in schools with teacher readiness to take on this reality was also captured in several studies from a global perspective. These studies echoed the push toward inclusion not being accompanied by preparation for teachers to meet the different set of challenges accompanying the changes (see Barrett et al., 2015; Blanton et al., 2018; Hettiarachchi & Das, 2014; Robinson, 2017; Tiwari, Das, & Sharma, 2015; Vorapanya & Dunlap, 2014).

General education teachers in Maine are expected to comply with state legislation promoting prereferral interventions (referred to as response to intervention) and enforcement of federal guidelines for inclusion of special needs students in the least restrictive environment of the regular classroom (Maine Department of Education, 2018a). Beginning in the fall of 2012, all public schools were expected to implement a system of interventions under general education and record and monitor data related to the success rate of students at risk prior to any referral for special education challenges (Maine Department of Education, 2013b). The interventions were to be geared toward helping all students meet core curriculum standards, with Maine having adopted the Common Core State Standards in 2011 (Maine Department of Education, 2018b). Schools were required to implement these curricular standards beginning in the 2013-2014 school year (Maine Department of Education, 2018b). State reports with student performance data per school and district are made available to the public each year through the Maine Assessment and Accountability Reporting System (Maine Department of Education, 2018a).

The elementary school in southern Maine that was the focus for this study exhibited the intersecting challenges related to general education teachers needing to be effective in teaching all students in their classrooms. State officials identified this elementary school in 2013 as one of 104 Maine schools on monitor status (Maine Department of Education, 2013a). During the 2016-2017 school year, only one third of students were meeting expectations, including over 90% of the subgroup of students with disabilities (Maine Department of Education, 2018a). The school had made some progress during this time period; however, it continued to be included on the list of schools being monitored pending performance on future measures (Maine Department of Education, 2018a). The state performance report added to the continuing demand that teachers in this school help students with special needs be successful in the general education classroom. As a result a key concern centered on the preparation and perceived readiness of these general education teachers to meet this challenge.

Rationale

Teachers have expressed concern about having the appropriate knowledge and preparation to meet the broader variety of student needs in the classroom resulting from the increased focus on inclusive general education (Blanton et al., 2018; Council for Exceptional Children, 2012; Council of Chief State School Officers, 2011; Spratt & Florian, 2015). I was motivated to undertake this project study by a joint policy brief released by the National Center for Learning Disabilities and the American Association of Colleges for Teacher Education (Blanton, Pugach, & Florian, 2011). The brief included NCES data showing that 57% of students with disabilities spent at least 80% of

their school day in general education classrooms (as cited in Blanton et al., 2011). According to the most recent available report from the 2016-2017 school year, that percentage rose to 63% of students with disabilities (U.S. Department of Education, NCES, 2018). Around the same time, the MetLife Survey of American Teachers (MetLife, Inc., 2011) revealed similar findings that highlighted the need for training for teachers. Blanton et al. (2011) observed that teachers' perceptions of a lack of adequate training for the demands of an inclusive classroom is an obstacle to furthering inclusive education in the United States.

These reports suggest that professional learning is needed for teachers to be effective in addressing students' special needs in their inclusive general education classrooms. During the same period in which these reports were released, inclusive classroom standards were updated for the teaching profession, both for preservice preparation and for in-service teacher evaluation. The most recent national teacher evaluation standards adopted by the Council of Chief State School Officers included a teacher standard directed toward competency in teaching special and diverse learners (Council of Chief State School Officers, 2011). As might be expected, the Council for Exceptional Children, the national professional association and standard-bearer for special education, also included a similar benchmark by which effective teaching of students with diverse needs was to be measured (Council for Exceptional Children, 2012). The standard was in effect at the time of writing.

Despite policy and standards outlining the vision for teachers to be able to teach students with a wide variety of needs in the inclusive classroom, there was a gap in

practice in that few teachers at the project site had the specific training and professional learning needed to equip them for the task. The research suggests that teachers overall face an increasingly complex job and lack accompanying professional learning and support to meet expectations (see Barrett et al., 2015; Blanton et al., 2018; Spratt & Florian, 2015). The purpose of this study was to investigate teachers' perceived level of preparation to address varied learner needs in an inclusive classroom. I also explored the related issue of teachers' perceived needs for professional learning and preferred ways to address this development.

Definition of Terms

In this study, I use a few special terms from the literature and in the field. The terms needing definition are as follows:

Deficit view: The term *deficit view* is often encountered in the literature referring to international contexts where inclusion is considered a shift in policy from a more traditional perspective of students with special needs (see Barrett et al., 2015; Spratt & Florian, 2015; Waitoller & Artiles, 2013). This term is also referred to as the *medical model.* The terms *deficit view* or *medical model* are rooted philosophically in the assumption that the special needs learner is in some way deficient in faculties or skills and that he or she must be educated separately and differently to address those special needs (Waitoller & Artiles, 2013).

Inclusion or inclusive education: The term *inclusion* or *inclusive education* stems from the practice of mainstreaming or including all students in general education classrooms as directed by current policies in the United States (see Barrett et al., 2015;

Spratt & Florian, 2015; Waitoller & Artiles, 2013). Specifically, the definition used for this study is rooted in the expectation in the United States that within a school students with special or diverse needs should be in classes with general education peers to the fullest extent possible or least restrictive environment (Blanton et al., 2018; Waitoller & Artiles, 2013) to meet the legal guidelines in special education law (Individuals with Disabilities Education Improvement Act, 2004).

Least restrictive environment: This term is drawn from special education law from the directive of the Individuals with Disabilities Education Act (IDEA) of 1997, reauthorized as the Individuals with Disabilities Education Improvement Act of 2004 (Individuals with Disabilities Education Act, 1997; Individuals with Disabilities Education Improvement Act, 2004, with amendment in the Every Student Succeeds Act, 2015). Specifically, the definition used for this study is rooted in the expectation that within a school students with special or diverse needs should be included in the general education classrooms to the fullest extent possible to meet the legal guidelines of the law (see Barrett et al., 2015; Every Student Succeeds Act, 2015; Individuals with Disabilities Education Improvement Act, 2004; Spratt & Florian, 2015).

Medical model: This term was encountered in the literature generally for international contexts and often is seen used similarly with *deficit view* as a traditional approach. *Medical model* as a term is used in contrast in describing approaches that separate special needs or diverse learners from others and in schools or sociopolitical systems that do not embrace inclusion as a philosophy. In these contexts special needs

students were considered as needing unique and separate instruction and settings (see Klibthong & Agbenyega, 2018; Waitoller & Artiles, 2013).

Special needs learners or diverse learners: The terms *special needs learners* or *diverse learners* are used to describe learners who are identified for special education or those whose first language is not English or the language of the school. The terms could be used to define which students are included in general education classrooms or internationally in inclusive schools (see Barrett et al., 2015; Blanton et al., 2018; Spratt & Florian, 2015). For this study, the terms apply primarily to students with identified disabilities; the site school does not have a significant population of students for whom English is not the first or native language.

Significance of the Study

Reacting to the effects of NCLB, the subsequent ESSA Act, and the push toward inclusive classrooms, many teachers had begun to question their readiness to meet the diverse student needs now in their classrooms (Blanton et al., 2011; Blanton et al., 2018; Every Student Succeeds Act, 2015; No Child Left Behind Act, 2001). Further underscoring teachers' needs to be effective in meeting the needs of special and diverse learners, teacher evaluations adopted by the Council of Chief State School Officers for state departments of education included a standard directed toward that measure (Council for Exceptional Children, 2012; Council of Chief State School Officers, 2011). The standards underlined the importance of the concern, yet teacher preparation programs or on-site professional learning options often fell short in helping teachers develop the needed skills to confidently meet these expectations.

The purpose of this study was to investigate teachers' perceived level of preparation to address varied learner needs in an inclusive classroom. Related to teachers' believed readiness to help all students learn, the study also explored teachers' perceived needs for professional learning and preferred ways to address this development. The information discovered could serve to guide professional development and support plans for teachers at the small local elementary school in Maine providing the context for the study. The professional learning needs for working with students with diverse learning needs were significant because the latter is contained in the state teacher evaluation rubric. School districts in Maine have been guided to evaluate teachers using a system based on the Interstate Teacher Assessment and Support Consortium standards (Council of Chief State School Officers, 2011; Maine Department of Education, 2014). Per the Maine Department of Education, the 2011 Interstate Teacher Assessment and Support Consortium standards were the most current standards in use at the time of this study.

Research Questions

Several federal policies in the United States have mandated the inclusion of special education students in general education classrooms. In turn, teachers are expected to be effective in teaching many different types of learners with diverse learning needs. Yet, according to the literature, training and preparation to teach all learners in an inclusive classroom is a challenge for teachers (see Barrett et al., 2015; Blanton et al., 2018; Spratt & Florian, 2015). Researchers have suggested that there are many possible factors in teacher preparation and continuous development related to the directive for inclusion. These include teachers' increasing need for knowledge of differentiation

strategies, attitudes toward inclusion of students with special and diverse learning needs in the general education classroom, confidence in preparation, and experience level in teaching (see Barrett et al., 2015; Blanton et al., 2018; Hettiarachci & Das, 2014; Tiwari et al., 2015; Vorapanya & Dunlap, 2014; Yada & Savolainen, 2017). The teachers in the rural elementary school in southern Maine chosen for this project study faced increasing demands to help students in inclusive general education classrooms meet the state's student performance targets under NCLB and now ESSA. The most recent state report for the school showed students were not meeting the state expectations, especially the category of students with disabilities (Maine Department of Education, 2013a).

The research questions addressed the purpose of this study in investigating the teachers' perceived level of preparation to address varied learner needs in an inclusive classroom. I also explored a related issue, teachers' perceived needs for professional learning and preferred ways to address this development. The information discovered could serve to guide professional development and support plans for teachers at the school. The research questions (RQs) providing the foundation for this project study were as follows:

RQ1. How prepared do teachers believe they are for addressing diverse student needs in an inclusive general education classroom?

RQ2. What professional learning do teachers perceive they need in order to meet diverse student needs in the inclusive classroom?

RQ3. What is the preferred way to access the learning opportunities related to these needs?

Review of the Literature

The review of the literature examined several topics related to this study. Among the topics were: definitions of inclusive education, the paradigm shift that resulted in several countries related to the movement toward inclusive education, the implications for teacher preparation, studies investigating teacher readiness for inclusion, and teacher beliefs and attitudes as related to successful inclusion. The search accessed multiple databases, was limited to peer-reviewed journals, and used Boolean operators with the key phrases: *special education*, AND *inclusive education*, AND *professional development*.

Conceptual Framework

There were two bases underpinning the problem for this research. One foundation was in sociocultural theory as it has evolved from the works of Vygotsky (de Valenzuela, 2007; Vygotsky, 1978). The second base was in transformative learning theory, emerging from the work of Mezirow (Dirkx, Mezirow, & Cranton, 2006; Kitchenham, 2008; Mezirow, 1997; Mezirow, 2000; Mezirow, 2006). Both theories aligned with teachers' perspectives and needs in readiness for the inclusive classroom.

The perspectives of sociocultural theory align closely with the challenges related to inclusion. Vygotsky's zone of proximal development places the emphasis for student learning on the mentorship and guidance of a person or persons with knowledge (de Valenzuela, 2007; Vygotsky, 1978). Vygotsky emphasized the social context for learning developed through teachers and students over the individual skills the student brings to the tasks (de Valenzuela, 2007; Vygotsky, 1978). Kugelmaas (2007) referred to this

disposition as forming the tenets of social constructivism and aligned views of instruction. The debate centered on whether students must have developed needed skill levels before being immersed in a classroom that may stretch their assumed capacity. In a review of the literature relating to the history of emergent differences between constructivism and social cultural theory, DeValenzuela (2007) insisted that constructivism, whether labeled social constructivism or not, still focused on the individual in development; conversely, sociocultural theory highlighted the function of social context and processes. Inclusion and its proponents align more closely with the perspectives of sociocultural theory.

To illustrate the close relationship of inclusion as an educational approach and sociocultural theory, a broader viewpoint on inclusion as an educational philosophy may be helpful. In their description of the conceptual underpinnings of inclusion, Spratt and Florian (2015) suggested that inclusive education has often been confused with practices that do not include the context of students working together in the classroom, and that it must require that the professionals work together and not in separate practices. From over a decade of research and practice in a national and global perspective on inclusion, Spratt and Florian proposed that the closest characterization of faithful inclusive practice is aligned with sociocultural theory and the work of Vygotsky.

Strengthening the shared global perspective on inclusion and the assumption that teachers are entrusted with the success of all their students, Barrett et al. (2015) recounted the global framework for inclusive education as a social model through the United Nations Standard Rules (UNESCO, 1994, as cited in Barrett et al.) and the Framework

for Action emerging from the World Conference on Special Needs Education in 1994 in Salamanca, Spain. According to Barrett et al., the so-called "Salamanca Statement" was a foundational policy with implications for educational systems globally to include children with special and diverse needs. The heart of the Salamanca Statement was that "schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions" (UNESCO, 1994, p. 6, as cited in Barrett et al., 2015). The central tenet of the importance of social context for learning and development in sociocultural theory closely parallels this trend toward inclusive general education in the United States and globally.

The second theoretical base for the problem is derived from Mezirow's theory for the process for adult learning, transformative learning (Dirkx et al., 2006; Kitchenham, 2008; Mezirow, 2000, Mezirow, 2006). In his revised theory of transformative learning built on "critical reflection," Mezirow outlined four types of learning: "elaborating existing frames of reference, learning new frames of reference, transforming points of view, and transforming habits of mind" (Mezirow, 2000, p. 19). Teachers and those preparing to be teachers may begin the learning journey toward inclusion in Mezirow's initial stages, trying to expand their existing knowledge and perspectives and moving to new points of view. In investigating priorities for learning and professional development needs related to teaching in an inclusive general education classroom, one goal is to learn where the teachers individually and collectively are in this journey toward preparation for the inclusive classroom – and even the willingness or intent to pursue the transformative journey. Further, Mezirow (2000) suggested that those who enter into transformative

learning inclined toward an outcome of social or organizational change could group with others to initiate cultural change within the context.

Review of the Broader Problem

A teacher's choice as to whether to enter formal coursework or professional development activities, or to participate in collaborative work groups or coaching, might be influenced by more than one factor. Among these, teachers would vary in their perceived needs by individual perspectives on the expectations stemming from current policy, orientation toward teacher certification needs or standards for teacher evaluation, attitudes and perceived level of preparation for working students with special or diverse needs, and demand level created by the increase of students with special and diverse needs included fully in the local school context and individual general education classrooms. Tracing the evidence of these influences, Blanton et al. (2018) undertook a review of the history of teacher reform and the influences on teachers. One of the contributing factors that drove reform was policy as it emerged with student diversity, along with attitudes that special education students should be instructed only by teachers trained and certified for special education. Thus, the dichotomy of beliefs were revealed and highlighted that formed barriers to reform. Klibthong and Agbenyega (2018) studied these barriers in knowledge and beliefs as well and recommended that teacher preparation and learning move toward transforming to be able to embrace inclusive practices.

In reviewing the concerns for inclusion and perceived readiness, several studies suggested that general education teachers did not perceive themselves as having a high level of competence in teaching all students in an inclusive classroom and saw inclusion

as the pressure but not the practice (Hettiarachchi & Das, 2014; Tiwari et al., 2015; Vorapanya & Dunlap, 2014; Yada & Savolainen, 2017). Other studies were targeted toward the relation between national policies and resulting staff training needed, along with the related influence of teacher attitudes and perspectives on practice (Rajovic & Jovanovic, 2013; Spratt & Florian, 2015; Tiwari et al., 2015).

Moving forward from the forces spurring the expansion of inclusion in schools, two other literature reviews focused on needs for implementing inclusive education from the perspective of teacher efficacy and preparation. Basing their study on the teacher competencies needed for the international movement toward inclusive classrooms, Alquraini and Rao (2018) drew their data from input from 179 faculty members from 30 universities. The self-reported faculty data analyzed suggested that major knowledge and competencies were included in their preservice courses for teachers; however, the specifics from the courses or practice were not examined or reported. Barrett et al. (2015) reported on the research related to implementation of the updated National Framework for Inclusion in Scotland as a national initiative to address the teacher needs for preparation and support teachers to develop effective inclusive instructional practices. This national focus has been in effect for several years in Scotland, and this was also reported by Spratt and Florian (2015) in their research to support strategies for teacher pedagogy that translated to including everyone in the classroom in a receptive sociocultural context .

Another review conducted by Waitoller and Artiles (2013) included a review of studies specific to professional development for inclusion. This literature review had a

broader scope than the previous reviews, considering the differing definitions of inclusive education and the political and sociocultural perspectives embedded in the shift to inclusive education internationally. The authors discussed the character and history of the shift to inclusive education and its reflection in the studies, with underlying definitions of inclusive education varied by the context of the country and the school(s) in which the research was conducted. The history and global character of the movement to inclusive education has some affinity with the various stages and attitudes toward inclusion in the United States. On the other hand, the moral issues and transformation from separate schools is farther afield from the global movement in general because of the strength of public policy in the United States legislating inclusion in its public schools (Waitoller & Artiles).

Definition. For the purpose of the study herein, the definition of inclusive education in focus is in meeting the needs of all students in the general education classroom, and not from the international perspective in many countries of the shift from exclusion or separate schools (Spratt & Florian, 2015; Waitoller & Artiles, 2013). Studies reviewed herein will be considered in that context. On the other hand, even in studies for teacher preparation or development for inclusive classrooms and schools in the United States, the paradigm shift to that definition among teachers might not be apparent in their attitudes or their training.

Paradigm shift. Several researchers acknowledged that in international history the shift toward inclusion was spurred by the Salamanca Statement and Framework for Action (UNESCO, 1994, as cited in Barrett et al., 2015; Jurkowski & Müller, 2018;

Yada & Savolainen, 2017). In two studies examining professional learning needs for inclusion, although the school context policy was shifting toward inclusion in a broader sense, the model and attitudes revealed teachers aligned with the traditional deficit or medical model or maintaining separation of special education students (Blanton et al., 2018; Waitoller & Artiles, 2013). In their report of research, Blanton et al. asserted that the policy and attitude factors they found did not result in the melding of special education with general education in teacher preparation. As part of their qualitative study of teachers in developing an inclusive approach, Spratt and Florian (2015) suggested that the paradigm shift for teachers must involve embracing a sociocultural perspective of the inclusive classroom that promotes each student learning in individual ways and collaboration among students. Based on their research, Spratt and Florian pointed toward the need for a shift in the culture of the classroom, while coupled with and complemented by implementation of inclusive instructional strategies.

Teacher preparation and pedagogy. Some of the researchers in the current literature expressed the need to develop pedagogy to address teacher preparation needs for inclusive education. Spratt and Florian (2015) studied teachers early in their careers who had been prepared through a graduate program for an inclusive pedagogy in Scotland. The researchers examined the results of teachers implementing the inclusive pedagogy in the classroom. The findings suggested that the influence of the inclusive pedagogy in the teachers' preparation was evident in their approach to the classroom, in including everyone and building a collaborative culture among the students. The researchers did acknowledge that this approach is emerging and shifts still need to

happen to fully implement the inclusive pedagogy. A study by Klibthong and Agbenyega (2018) also pointed toward the transformative nature of inclusive pedagogy and resulting shift in level of knowledge of students with disabilities.

In contrast, Tiwari et al. (2015) explored the influence of a policy embracing inclusive education as compared with the exercise of inclusive practices in the classroom. The researchers found that teacher preparation and learning that does not change the teachers' fundamental beliefs in separate programs and systems for special education students and perceptions of self-efficacy related to lack of preparation to teach in the inclusive classroom. The interplay of teacher attitudes and self-efficacy in relation to preparation for inclusion was also studied by Yada and Savolainen (2017).

Other studies provided research-based input for planning pedagogy and teacher education, as well as national frameworks. Among these were the studies by Kurth and Foley (2014) and Kaur, Mohammad, and Awang-Hashim (2016) advocating expanding teacher efficacy for inclusion. A study by Alquraini and Rao (2018) suggested the need for a core of standards and incorporated the teaching standards developed by the Council for Exceptional Children (2012). Frameworks for inclusion were studied and outlined by the findings from the work of Barrett et al. (2015) and Florian and Spratt (2013) related to the national framework in Scotland. Alexiadou and Essex (2016) studied building teacher professionalism for inclusion over emphasis on policy. Finally, zeroing in on teacher efficacy to strengthen successful inclusive classrooms, Bačáková and Closs (2013) and Soukakou, Winton, West, Sideris, and Rucker (2014) studied the effectiveness of inclusive teaching practices to inform teacher development.

Collaboration. The collaboration of special education and general education teachers is a key theme in the literature in both pre-service and in-service training for the inclusive classroom (Bouillet, 2013; McGhie-Richman, Irvine, Loreman, Cizman, & Lupart, 2013; Shady, Luther, & Richman, 2013). In a study by Jarkowski and Müller (2018), the collaboration of 13 pairs of general education and special education teachers were followed over a year, with reports early, middle, and end. The findings suggest that the cooperation was not successful in any of the pairs or "dyads" and students reported the cooperation declined through the year. The researchers attributed this lack of collaboration to non-alignment of thought regarding collaboration and need for more training.

A few studies go beyond advocating for and addressing collaboration in teacher training. Mulholland and O'Connor (2016) in a mixed methods approach studied both ways through classroom teachers to make collaboration effective and the obstacles in the way. Bouillet (2013) in a study involving 69 teachers from several schools, reported on the outcome of a study using a questionnaire and interviews to get input on needs for implementing inclusive education. Bouillet cautioned that the numbers are too small for the results to be generalizable; however, the message can contribute to considerations for inclusive education in each context. Responses strongly advocated for the need for collaboration; however, the input went beyond by emphasizing the level of collaboration needed, suggesting a culture of collaboration and need for expanding school support and capacity to make the collaboration work. Even though this study was conducted in Croatia, the themes that emerged are reminiscent of the same messages from studies done

in the United States, notably in studies by McGhie-Richman et al. (2013), and Nichols and Sheffield (2014).

Broader collaboration was examined by Robinson (2017). In a study of the effectiveness of cooperation between school and university, the researcher created and studied a professional community including pre-service and in-service teachers, paraprofessional teaching assistants, as well as university tutors in the context. Robinson found that the grouping was effective. Based on results, Robinson concluded that simple immersion of teachers to an inclusion context and classroom alone is not as effective as including the input of university pedagogical perspectives.

Teacher readiness for inclusion. Because of the nature of the shift and increased demand for inclusion, readiness for inclusion was a factor that accompanied the research by many included in this literature review. A few studies were focused on that question. One such study by Hettiarachchi and Das (2014) included 75 teachers surveyed on their viewpoints toward inclusion. The teacher participants included both general education and special education teachers. Based on the findings, Hettiarachchi and Das concluded that special education teachers perceived a higher self-efficacy in teaching students with disabilities in an inclusive classroom setting than did the general education teachers. The findings also revealed some disagreement on the nature of inclusion and disparity in perception of the level of inclusion-related knowledge and skills. This study captured the need for more teacher training as inclusion is infused into school contexts.

Similar to the Hettiarachchi and Das (2014) study, Yada and Savolainen (2017) also studied the perceived level of self-efficacy and attitudes toward inclusion with a

sample of 359 teachers in Japan. Yada and Savolainen reported that when comparing beliefs on knowledge and skills for inclusion, the teacher participants reported relatively low levels of self-efficacy as compared with those reported in other countries. This perception of low skill levels for inclusion was especially evident in the area of behavior management. On the other hand, attitudes were positive overall toward students with disabilities, but the effect did not extend to successful implementation of inclusion in their classrooms. Capacity for collaboration was also perceived as low. Yada and Savolainen made recommendations that teacher training include focusing on confidence as a factor in developing teacher efficacy for the inclusive classroom. In contrast, a qualitative study reported by Tiwari et al. (2015) probed the implementation of inclusion. Teachers interviewed revealed that despite the policy enforcing inclusion, the inclusive classroom was not successful. In addition, beyond teachers' report of the need for training, teacher attitudes were consistent with separatist views for students with disabilities being taught by special education teachers. These entrenched attitudes posed a barrier to success in the inclusive classroom, and ultimately revealed teachers' readiness for implementation was far apart from the inclusion policy.

Role of teacher beliefs and attitudes. The study by Tiwari et al. (2015) was not unique in revealing the core role of teacher beliefs and attitudes in successfully implementing inclusive practices in the classroom. In essence, this finding related to the influence from past experience and beliefs. It also was reminiscent of the dichotomy set up by the past silos of practice for general and special educators and the beliefs for their respective roles for instruction of special and diverse learners. A study by Engelbrecht,

Savolainen, Nel, Koskela, and Okkolin (2017) suggested a similar result in revealing the complexity brought to classroom practices surfacing from the attitudes from the medical deficit beliefs of teachers. A surprising result related to teacher attitudes forming barriers to effective inclusive classrooms was revealed in a study by Thorius (2016). Thorius' research surfaced barriers to successful inclusion routed in the attitudes of special education teachers, not of general education teachers.

Other studies highlighted the tensions between the practice of inclusion as a result of institutional policy and the difficulties that teachers experienced under the pressure to make that paradigm shift. Rajovic and Jovanovic (2013) reported on 15 studies by other researchers over ten years on the beliefs and attitudes of teachers toward inclusion and handling diverse student needs. The focus for the Rajovic and Javanovic review was on the shift toward inclusion in Serbia, but mirrored other studies in countries where inclusion policy preceded training and practice (Barrett et al., 2015; Blanton et al., 2018; Hettiarachci & Das, 2014; Schneider, 2018; Vorapanya & Dunlap, 2014; Yada & Savolainen, 2017).

Other study results revealed similar conceptual stances among teachers with implications for teacher preparation programs and professional learning. Studies suggested that for readiness for inclusion teacher learning needed to be directed toward increasing knowledge and understanding of students with special or diverse needs in order to allay teacher apprehension of working with these students in an inclusive classroom. Ultimately, the preparation must be directed toward inclusive education as the norm, and away from the dichotomy of special education and general education as

separate paths. As an example of one of these studies, Shady et al. (2013) did a small study with 34 teachers, both general education and special education, investigating attitudes toward inclusion during the first year of its implementation in their school. One unexpected outcome was the finding that some teachers did not believe that every special education student would benefit from being in an inclusive classroom. And a similar message resulted from a study of 31 general education and 25 special education pre-service teachers done by McHatton and Parker (2013). One result suggested that inclusion might even have a negative effect on special education students.

Barrett et al. (2015) and Spratt and Florian (2015) described the pedagogy that emerged from the national framework in Scotland that dealt with the transformation toward evolved inclusive education practices. In Scotland, the project raised questions about whether inclusion and increased student achievement were mutually exclusive or developed as complementary targets (Barrett et al., 2015). Spratt and Florian studied the implementation of an evolved inclusive attitude of a classroom for everyone.

On the theme of the influence and potential barrier of teacher attitudes and beliefs toward inclusion, studies have shown mixed results as to the influence of training. One such study by Bailey, Nomanbhoy, and Tubpun (2015) found that perspectives of 300 primary school teachers in Malaysia on inclusion were influenced by lack of skills to teach in an inclusive setting as well as plaguing negative attitudes toward special needs students and their families. The effect of exposure to a person or persons with disabilities as likely to form positive attitudes toward inclusion was studied among 68 pre-school teachers by Dias and Cadime (2016) showing some positive results.

Teacher confidence. Supporting the implications on the matter of confidence as it relates to training, a study by Pancsofar and Petroff (2013) of 129 teachers from five school districts supported the value of training in building confidence for the inclusive classroom. In this study, the researchers used a survey focused on confidence and attitudes as related to co-teaching in an inclusive classroom. The findings suggested a positive relationship between the frequency of professional development and training with confidence and orientation toward collaboration in inclusive settings. Of particular note in this study was: of the 129 teachers participating 79 reported having experience levels of ten or more years of teaching. Even with a high proportion of respondents with that level of experience, the outcome implied the need for frequent in-service for successful collaboration in the inclusive classroom.

A similar implication regarding the teacher-believed need for training for inclusion was found in the study by Hettiarachchi and Das (2014), which revealed that special education teachers believed they were more confident and ready for inclusion than their general education colleagues. The study by Spratt and Florian (2015) reported earlier also explored the intersection of teacher preparation, beliefs, and willingness to explore recommended practices for inclusion. The Spratt and Florian study examined effectiveness of pedagogy implementation based on the national framework for inclusion in Scotland. Yada and Savolainen (2017) in their study cited earlier also revealed an underlying factor of teacher confidence for implementing inclusion, with the study's 359 teachers generally perceiving their ability to teach in an inclusive classroom as low, with the interplay of attitudes and the need for training.

Finally, a broader study by McGhie-Richman et al. (2013) in rural Canada, included surveying 123 teachers in one school district, followed by 14 qualitative interviews. The attitudes toward inclusion were found to have some relation to the level or severity of needs of the individual students identified for special education. The categories that surfaced as needed for effective inclusion were broad, encompassing support and collaboration, communication, classroom communities, and the level of support and training provided. This study had a strong message that the specifics of the support and context for implementation are essential variables to the measure of teacher confidence and readiness for inclusion. Similarly, reporting on a study done examining the effects of an international project, Klibthong and Agbenyega (2018) concluded that support is a factor in confidence. Based on findings, Klibthong and Agbenyega proposed that participation in a community of professionals can help build confidence and encourage teachers to embrace their professional learning for implementing inclusion.

Questions remaining. Not revealed in the review of the literature is the level of priority in-service teachers would indicate for inclusion education or special education as a focus for graduate coursework, Despite evidence in the literature of the pressures and trend toward inclusion and inclusive classrooms, this leads to the question as to whether undergraduate teacher preparation programs should incorporate this professional learning or whether the preparation should be reliant on in-service continuing education activities in the school context or formal graduate coursework to further preparation levels? Are the general education teachers targeting challenges for teaching in inclusive classrooms as a

focus for their professional growth or, contrary to recent studies, are they confident in their level of preparation for the task?

Implications

The portion of the literature review focused on the conceptual framework suggested the underpinnings of sociocultural theory aligned strongly with the movement toward inclusion. Further, the literature sources researching teachers' shift from the traditional dual systems of special education and general education toward inclusive education had implications for the need for a transformation in professional learning, with transformational learning also part of the theoretical base for this study. With the guidance of the research questions for this study, the literature review for both the theoretical framework and the future research as part of the study might combine to yield implications for possible project directions. The review of the current literature on inclusive education included studies revealing themes related to teachers' level of comfort and readiness, teacher attitudes and confidence, teacher preparation, and the need for collaboration. All of these themes could offer guidance for the study and for the potential project resulting from the site-based research.

Considering this framework and the themes that surfaced from the literature review, the data collection and analysis for this case study might reveal implications for a professional development project. The research from the literature review suggested that teachers in the shift toward immersion into the inclusive education model at their schools need professional learning to increase their efficacy for the related demands. The themes that emerged from the literature review could guide the development of questions for the

data collection instruments. The data to be drawn from teachers participating in this research study might reveal needs related to professional learning and possibly inform the development of a professional development plan to address inclusive education at their school. Given the size of the population for this case study, the findings would not yield data that could be generalized to a larger population.

On the other hand, the study findings combined with the results of the literature review might suggest directions and questions that could be asked in other schools in this district, and in similar schools elsewhere. It is also possible that the project that emerges from the data in the case study research at this school might offer alignment with a project other than professional development. The results of this literature review will help to guide and shape the possible project as well as to offer directions for the project study research and input asked of the participants. Ultimately, even though the results of the literature review provided implications for the possible project, the data from the study informed the choice and development of the project. The themes that emerged from the literature review and the theoretical foundations provided a base.

Summary

The literature review suggested that schools and educational systems in other countries are farther away from the inclusion that has been mandated in the United States, and are in various stages in the paradigm shift, if even moving successfully in that direction. In some ways, the push toward inclusion carries with it an educational philosophy underpinning that is aligned with sociocultural theory (DeValenzuela, 2007). Teachers in an inclusion school context are often at comparatively different stages in

their journey in preparation for teaching all students akin to Mezirow's theory of transformative learning (Dirkx et al., 2006; Kitchenham, 2008; Mezirow, 2000; Mezirow, 2006).

Teacher preparation is aligned with the movement toward inclusion. In the United States, the policies pushing for common educational standards for all students made efficacy in teacher preparation for the inclusive classroom non-negotiable (Alquraini & Rao, 2018; Barrett et al., 2015; Blanton et al., 2018; Rajovic & Jovanovic, 2013; Spratt & Florian, 2015; Tiwari et al., 2015; Waitoller & Artiles, 2013). Teacher readiness for inclusion was a focus in several studies (Hettiarachchi & Das, 2014; Tiwari et al., 2015; Vorapanya & Dunlap, 2014; Yada & Savolainen, 2017). Teacher attitudes and beliefs, as well as confidence levels, for teaching in the inclusive classroom have also been studied as significant factors contributing to teacher readiness and efficacy in addressing diverse student learning needs (Bailey et al., 2015; Dias & Cadime, 2016; Engelbrecht et al., 2017; Hettiarachchi & Das, 2014; Klibthong &Agbenyega, 2018; McGhie-Richman et al., 2013; McHatton & Parker, 2013; Pancsofar & Petroff, 2013; Rajovic & Jovanovic, 2013; Shady et al,, 2013; Spratt & Florian, 2015; Thorius, 2016; Tiwari et al., 2015; Yada & Savolainen, 2017). Encountered often in the literature, teacher readiness for inclusion was a common theme.

The literature review also revealed other common themes. Among these was the recommendation for the development of a pedagogy and common national framework for teacher education for inclusive education (Alexiadou & Essex, 2016; Alquraini & Rao, 2018; Bačáková & Closs, 2013; Barrett et al., 2015; Florian & Spratt, 2013; Kaur et al.,

2016; Klibthong & Agbenyega, 2018; Kurth & Foley, 2014; Spratt & Florian, 2015; Soukakou et al., 2014; Tiwari et al.,, 2015; Yada & Savolainen, 2017). Another strong theme reported was the need for collaboration, not only among teachers in inclusive schools, special and general education teachers alike, but with university faculty for pre-service and in-service training for inclusive education (Bouillet, 2013; Jarkowski & Müller, 2018; McGhie-Richman et al., 2013; Mulholland & O'Connor, 2016; Nichols & Sheffield, 2014; Robinson, 2017; Shady et al., 2013). The literature review revealed several perspectives related to preparation for inclusive education on a national and global scale.

This project study targeted discovering the needs of teachers for inclusive classrooms in a rural elementary school. The goals aligned with the research questions were to discover the needs related to preparation for teaching in the inclusive classroom, and the preference for mode for professional learning. The findings aligned with at least some of the findings in the broader context described in the literature review on inclusive education in this section. In the next sections, the methodology for investigating professional learning needs will be discussed in Section 2; the project that emerged from the findings will be described in Section 3; and finally, conclusions and reflections from the project study will be offered in Section 4.

Section 2: The Methodology

As outlined in Section 1, emerging legislative and policy changes in public education have expanded demands for teachers to successfully work with students with diverse learning needs in inclusive general education classrooms. This in turn has raised expectations for teachers to be ready to meet this challenge professionally. The purpose of this project study was to examine teachers' perceived level of preparation to address varied learner needs in an inclusive classroom. I also explored the related issue of teachers' perceived needs for professional learning and preferred ways to address this development. The information discovered could serve to guide professional development and support plans for teachers at the small rural elementary school that served as the project site.

Qualitative Research Design and Approach

I used a qualitative approach because of the small number of potential participants for this study, the specific context, and the questions and intent (see Creswell, 2012; Glesne, 2011; Merriam, 2009). No portion of the study involved large numbers or prediction, or the use of an experimental process; therefore, the quantitative or mixed-method approaches were not appropriate. Because the RQs were focused on information gathering or discovery, the qualitative approach was most appropriate. Further, the sample for the study was small and purposeful and not random; it was drawn from a specific setting, and the results could only yield information for that context and could not statistically be generalized to a larger population (see Creswell, 2012; Hancock & Algozzine, 2006; Merriam, 2009). The focus of the study was on a particular setting and

group, what has been referred to as a *bounded system* (Smith, as cited in Merriam, 2009) and was considered a case study.

The focus of the case study was on general education teachers in the context of one small rural elementary school in southern Maine. The Walden IRB approval number for the study was # 05-27-16-0197466. The purpose of this study was to explore teachers' perceived level of preparation to address varied learner needs in an inclusive classroom, believed readiness to address the needs of all students in their classrooms, and perceived needs for professional learning and ways to address this development. Because the study dealt with teacher perceptions and beliefs within a small sample, a qualitative method was most closely aligned with the information sought. The specific approach was an *instrumental case study* (Stake, as cited in Merriam, 2009, and Creswell, 2012).

In this instance, the approach involved an inquiry into the group's professional needs for teaching in an inclusive general classroom. The nature of the research questions aligned well with the administration of an on-line survey of the teachers at the school, with closed- and open-ended questions, followed by an e-mail interview of those teachers willing to participate in that phase. The follow-up e-mail interview with open-ended questions allowed for a deeper inquiry among teachers volunteering to take part, also aligned with the qualitative case study method**.**

Participants

Criteria for Selecting Participants

The selection of participants constituted a purposeful sample as opposed to a random sample that was drawn from those among the 44 teachers at the school who

agreed to participate in the study. A purposeful sample was most appropriate in this research study because of the targeted criteria used for participants limited to the specific school site. The teachers selected were those who worked in inclusive general education classrooms and thus were the teachers who would be most knowledgeable about their preparation needs for the task (see Creswell, 2012; Merriam, 2009).

Number of Participants

With regard to determining a target sample size, the literature reviewed for qualitative research (Creswell, 2012; Fink, 2009; Glesne, 2011) does not suggest a minimum sample size. The target sample for voluntary participation was at least 50% of those responding, or 22 teachers out the 44 teachers at the school who met study criteria. The target sample of 22 participants was not met within the first 2 weeks. I sent a follow-up e-mail to encourage participation in order to meet the target sample for response. A total of 27 teachers from the population who met the criteria participated in the anonymous online survey. Because I developed the follow-up e-mail interview expanding on responses obtained from the survey, I had to await a separate IRB approval for the interview questions. After IRB approval, the e-mail interview was sent to participants toward the end of the school year. Having received only one response initially, and none during the summer, I continued this second phase of data collection in the early fall and sent another invitation for participation in the interview. A total of seven teachers participated in the follow-up structured e-mail interview.

Procedures for Gaining Access to Participants

School administrators provided teacher e-mail addresses. Teachers received a group e-mail inviting voluntary participation and outlining the purpose of the research, along with a statement of confidentiality. The e-mail (see Appendix B) included instructions to guide participation and contained a link to the questionnaire, which was in the form of an anonymous web-based survey on the survey platform web-site, Survey Monkey (Survey Monkey, n.d). The data collection included reminder e-mails at 2 and 4 weeks after the original invitation in order to increase participation. Respondents to the survey were invited to take part in the next phase of the research, consisting of a structured follow-up interview which was also e-mail-based.

Establishing Researcher-Participant Working Relationship

Given that the research involved an online questionnaire and follow-up e-mailed interviews, I did not establish the type of working relationship with participants that could have been established in an on-site case study using observation or a face-to-face interactive approach (see Creswell, 2012; Hancock & Algozzine, 2006; Merriam, 2009). The principal of the school gave consent to conduct the research with the teachers. I established the initial relationship with the teachers through e-mail correspondence in which I outlined the purpose of the study, stated the confidentiality agreement, and invited participation through Survey Monkey via the link to the questionnaire (see Appendix B). Participants were anonymous during the questionnaire stage. I reached out by e-mail to those who had indicated a willingness to participate in the second phase for a structured follow-up e-mail interview by providing an e-mail address. For the follow-up

e-mail interviews, I used a structured interview protocol containing some information on experience and open-ended responses.

Protection of Participant Rights

Because of ethical issues, several aspects of the methodology were important. The survey and the follow-up interviews were only on a voluntary basis. A key to willingness to participate in the research was the teachers' trust in me to maintain confidentiality of the survey and interview data unless consent was given by the individual. A statement of purpose for the study included in the e-mail clarified participation in the survey would be anonymous. Confidentiality was maintained by use of the online survey platform, Survey Monkey (Survey Monkey, n.d). I distributed confidentiality agreements to the administrators (see Appendix D). For those willing to participate in a follow-up e-mail interview, I assured confidentiality up front in the e-mail invitation by specifying the intent to share any specific information only in aggregate form or as anonymous sample responses. Participants implied individual consent by choosing to respond.

The individual responses were anonymous in the survey stage with no link to any e-mails or names. I e-mailed follow-up in-depth interviews to those indicating willingness and providing e-mail addresses. Using the e-mail format automatically provided written transcripts that individual participants could review before submission. To protect anonymity, I coded the participant's identity and I did not share identities with anyone. Member checking was done with each interview respondent by e-mailing a follow-up review if needed when information was categorized into themes, asking for feedback on any misrepresentation of the participant's interview response. The purpose

of the research was revealed to the teachers as being part of an effort to learn more about the supports or professional learning needed to make inclusive classrooms succeed at the school.

Consent and confidentiality agreements were addressed in advance of collecting any data. The superintendent of the district and the administrator of the school gave consent for this research to be conducted with the teachers. The superintendent's and principal's expectations were that the aggregate data for responses would be shared with individual identities kept confidential, and that protection from harm would be preserved in future relationships with the teachers specifically related to the data.

In summary, ethical issues related to treatment of participants were addressed in the following ways as recommended by Creswell (2012), Glesne (2011), and Merriam (2009). Participants were provided needed information about the purpose of the study and the intended use of the data collected. Participants were given the opportunity for *informed consent* as well as *right of refusal* at any point; the participation was totally voluntary. As the researcher, I obtained consent and agreement from administrators to ensure *confidentiality* for individuals participating and information, as well as to agree to control for any possible risk for participants with benefits stemming from participation being greater. The data I collected would be considered *private data* and only the aggregated results could be shared without specific consent by an individual. And finally, related to procedures to minimize any risk, through the original e-mail invitation for the survey, participants were offered the option to ask any questions they might have about the study before or after the data collection and analysis.

Data Collection

Data Collection Sources

Key paths for data gathering included a small cross-sectional questionnaire, with closed and open-ended items, followed by e-mailed structured interviews with those willing to follow up. Participation was voluntary. The bulk of the questions on the survey instrument were closed-ended and yielded foundational data; however, the questionnaire included open-ended options to allow for an opportunity for expanded qualitative data (Creswell, 2012; Fink, 2009). The questionnaire was web-based and utilized the online survey platform, Survey Monkey (Survey Monkey, n.d). Contact to invite participation was through group e-mail to teachers, with two reminder e-mails sent at two-week intervals to encourage additional respondents. After the initial survey phase, the study also included voluntary follow-up structured e-mail interviews to yield more depth. Because this study was done among teachers in a public school, the survey phase ended at the beginning of the summer with responses dwindling at the end of the school year. The follow-up e-mail interview began after the survey ended in the beginning of the summer. Due to poor initial response at the end of the school year, I opened access for the e-mail interview again in the fall.

Because the study was intended to gather information to inform planning for professional learning and support for general education teachers for the challenges of inclusive classrooms, a questionnaire design was appropriate. The research questions for the study did not focus on the effect of any treatment or program, nor allow for observable data; therefore, a cross-sectional qualitative survey design was appropriate for

the first phase of data gathering, with more investigation through interview as a second phase for more depth through more open-ended data.

Data Collection Instruments and Sources

The questionnaire instrument (see Appendix B) included portions of the Schools and Staffing (SASS) Teacher Survey by the U.S. Department of Education, National Center for Education Statistics (2011). With this SASS Teacher Survey questionnaire offered in the public domain, NCES invited local school researchers to use the questionnaire in its entirety or to tailor it for local purposes. Communication stating this access was obtained from an NCES representative. The sections used from the SASS questionnaire were the demographics with addition of teacher preparation degree program, the number and type of diverse students in the inclusive classroom in the local school context, and the section on professional learning.

Even though I collected data using selected closed-ended questions from the SASS survey (U.S. Department of Education, National Center for Education Statistics, 2011) related to professional learning, I gathered additional qualitative data through providing opportunity on the survey for open-ended comments. These open-ended questions and options for comments addressed participation in graduate coursework, professional learning opportunities made available in the local school context related to inclusion and special or diverse learners. In addition, the open-ended portion of the survey gave opportunities to address years of teaching experience, confidence level for teaching in an inclusive classroom, as well as other preparation needs for the inclusion classroom.

The questions selected and adapted from the SASS questionnaire (U.S. Department of Education, National Center for Education Statistics, 2011) for this study were drawn from the eight items comprising the professional learning section, and some adapted from the remaining 39 in the demographics sections addressing general background, training and educational background, and context information on school and student population taught. Using the survey design elements described by Fink (2009), the SASS survey structure is best described as incorporating a checklist approach, with yes-no questions linked to additive scale items and forced multiple choice. In the professional learning section, there was an option offered for an open-response and comment for training that was not given as a priority choice. Included in the research survey, I included open-ended options incorporated along the additive and elaborative structure already established, expanding on coursework and program needs and priorities.

E-mail interviews followed shortly after the survey phase ended and continued in the following fall, with data analyzed for themes and questions emerging. I developed the interview protocol based on response data from the questionnaire and initial research questions. The interview followed a protocol I developed with open-ended questions and served to drill down for more depth. Because interviews were completed through e-mail, that automatically provided a written transcript of each and therefore allowed for review of considerations of accuracy and triangulation (Creswell, 2012; Glesne, 2011; Merriam, 2009).

Sufficiency of Instruments for Research Questions

The research questions at the heart of this project study targeted learning more about the teachers' perceptions of their levels of preparation to teach in the inclusive classroom, their beliefs on professional learning required for them to help learners with diverse needs in their classrooms, and their preferred modes for learning related to inclusion. The survey questionnaire adapted from the questions from the professional learning section of the SASS questionnaire (U.S. Department of Education, National Center for Education Statistics, 2011) included questions addressing all of the research questions and used a Likert-type scale to tap perceptions of preparation levels and preferences, and allowed for open-ended responses as well. The follow-up structured e-mail interview was developed to expand on concerns related to preparation and professional development based on input from the survey. Both instruments were based on the research questions for the study and tapped data appropriate for a qualitative approach.

Processes for Data Collection and Recording

Originally, 44 teachers who taught in inclusive classrooms were invited to respond to the anonymous on-line survey posted on Survey Monkey (Survey Monkey, n.d). Of the 44 teachers, 27 responded to the survey over a four-week period with participation spanning the end of May through June 2016. The survey data was automatically recorded through the Survey Monkey site. Once approved, the second phase of the study, the structured e-mail interview, began in late June with follow-up e-

mails to those indicating they were willing to participate. Only one teacher responded initially. After a second e-mail invitation for the e-mail interview in early July with no responses, permission was obtained from the administrator to renew the invitation the following fall. This second effort to increase participation ended On December 1, 2016. Eventually, respondents to the structured e-mail interview totaled seven teachers. Because this was second phase consisted of an e-mailed interview, the responses were written and stored electronically.

Systems for Recording and Keeping Track of Data

For the questionnaire data, I collected data electronically using the Survey Monkey (Survey Monkey, n.d) on-line web-based survey platform. The Survey Monkey system yielded basic numbers for close-ended question responses, and for open-ended question responses offered opportunity for frequent categorization and review for patterns or themes relative to the questions. The open-ended data captured from the questionnaire utilizing Survey Monkey were synced with the computer-aided qualitative data analysis system, NVivo (Q. S. R. International, n.d), including tracking with demographic data. For the follow-up e-mail interview, the text responses were stored electronically as well, with transcripts also uploaded and stored using NVivo. A reflective journal of researcher commentary was kept continuously to accompany the questionnaire data and interview transcripts as collected (Creswell, 2012; Glesne, 2011; Merriam, 2009).

Procedures for Gaining Access to Participants

A list of teachers' e-mail addresses was provided by the school administrators. Invited by group e-mail, participation in the on-line survey and follow-up structured e-

mail-based survey was voluntary. Along with information on the purpose for the research and confidentiality, the e-mail instructions (see Appendix B) directed the participants to a link for the web-based questionnaire for the study, and also inferred consent if responding. Follow-up interviews from among the respondents to the survey used e-mail as the medium; that also automatically offered text of the interviews in writing for text-based review and analysis.

Role of the Researcher

At the time of this project study research, I worked in a coordinator role in another school district and did not have ordinary contact with the school being studied. Other than collecting the online data from the questionnaire and doing follow-up e-mail interviews, the research did not include an active face-to-face role or relationship with the participants. After the project study was completed and approved, findings would be shared with the school administrators, including a plan for a possible project drawn from the study.

Data Analysis

Data Analysis and Coding Procedures

The closed-ended item response data from the survey administered in this study were calculated using the on-line survey resource, Survey Monkey (Survey Monkey, n.d). Initially, the data were reviewed for patterns across responses. The closed- and open-ended items were then analyzed and coded for information and themes emerging. Data were reviewed with the aid of Survey Monkey and computer assisted qualitative data analysis software for text analysis checking through NVivo (Q. S. R. International,

n.d). In the analysis of open-ended question responses both on the questionnaire and the interview data, I compared the data results as the data were collected and kept a reflective journal on a continuous basis (Creswell, 2012; Glesne, 2011; Merriam, 2009). Using the computer-aided analysis of both the survey and the interview offered less reliance on the researcher's perspectives and allowed the potential for a more objective view of categories and themes.

The written record provided by the e-mailed interview responses was analyzed for themes and categories, coded as the interviews were completed. For narrative analysis of written transcripts from the interviews and open-ended responses in the survey and the Survey Monkey (Survey Monkey, n.d) data, the computer-based text analysis software NVivo (Q. S. R. International, n.d) was also utilized. The Survey Monkey data from the questionnaire were synced using NVivo, including demographic data gathered as well as question responses.

Evidence of Quality

The data analysis included the opportunity for member checking by a follow-up e-mailing the individual respondent's data categorized into themes, requesting feedback for any misrepresentation of the participant's interview responses. Although the structured e-mail interview response inherently provided opportunity for review by the participant before submission, the reason for this member checking opportunity was to check for the credibility of the interview data analysis, keeping the results aligned with the participant input. No outside experts were asked to review the data.

Procedures for Dealing with Discrepant Cases

Any potentially discrepant or unique data or perspectives were compared to the emerging views or themes. Weighed in relation to the total data analyzed, the discrepant data were considered as to what the more unique responses might suggest or reveal in the school context for this study. Two such discrepant cases revealed a very different message from the patterns that appeared to emerge. The two teachers were in effect at opposite ends of the experience continuum and their contexts appeared unique from what other teachers reported. One teacher had over 30 years' experience and advanced degrees and had served in a coaching role more than teaching regularly in the classroom. The other teacher, with only one year of experience in the role of teacher, indicated a need for the provision of support personnel rather than professional learning to address the needs. Both cases were noted but considered as unique or discrepant from the rest of the data.

Data Analysis Results

In this section the results of the analysis of data are described in detail. The discussion of findings includes consideration of the relationship of the outcomes to the problem and research questions at the heart of the project study. The results are also analyzed in relation to the teacher participants' experience and academic preparation. Where applicable, the findings are compared with the results of the 2012 NCES SASS Teacher Survey (Goldring, Gray, & Bitterman, 2013). The data were analyzed as to patterns or themes that emerged, and also considered in relation to alignment with the study research questions. Referencing the literature review and the theoretical base for the study, comparisons from the project data and themes are also made with these

sources. The end of the section addresses handling of discrepant cases, evidence of quality, and the project planned based on the study results.

Process for Data Collection

As a review, the process for data collection for the study data included use of an anonymous on-line survey and a follow-up e-mail interview. I invited participants for the survey through an e-mail to the teachers in the school. The e-mail provided the link to the survey. As participants responded, the data were electronically recorded and saved through the web-based survey system, Survey Monkey (Survey Monkey, n.d). Teachers were invited to participate in a follow-up structured e-mail interview and by the nature of the e-mail format, a written electronic record or transcript was automatically available for each interviewee's responses. The interviewees were anonymous as well unless their e-mail address identified them; however, each respondent was represented by a number in the data when recorded and analyzed. In short, for both the survey and the interview, data records were collected and recorded electronically.

Teacher participant backgrounds represented in data. Of the 27 teachers responding to the online survey, two thirds of the teachers indicated their class size was 16 to 20 students. This class size aligned with the data represented in the 2012 NCES SASS Teacher Survey which reported class size averaged between 17.8 and 18.4 students in Maine (Goldring et al., 2013). Regarding special populations in their classrooms, 96.3% indicated they had one or more students in their classrooms who were identified for special education, with over half (51.85%) with six or more students with a disability.

Only five of the 27 teachers responded as having ELL language learner or limited English proficiency (LEP) students, and the number was very few per teacher (under five).

All survey respondents reported having gone through intern or student teaching and were certified as teachers with the state of Maine. In indicating teaching experience, of the 27 teacher survey respondents, six reported 1 to 2 years experience and three reported 3 to 5 years' experience. The remaining 18 teachers had over five years of experience, with nine indicating having 6 to 10 years' experience, six responding as having 11 to 20 years' experience, and three indicating having over 20 years of experience (see Table 1). Proportionately, one third of the respondents had 0 to 5 years' teaching experience. Similarly, one third of the teachers reporting represented in the mid range of 6 to 10 years of experience, and one third was more experienced with 11 or more years' teaching experience. At face value overall the years of teaching experience represented were somewhat balanced across ranges from least to most. Of the 27 survey respondents (see Table 1), 11 indicated having a master's degree, three of whom reported having 0 to 5 years' teaching experience. Three survey respondents had special education training and education.

Table 1

Qualifications of Survey Respondents

Identification code	Years' teaching experience	Degree(s)	Special education training/experience
SR 1	1-2	B	
SR 6	1-2	B	Yes
SR 11	1-2	M	
SR 12	1-2	M	
SR 16	1-2	M	
SR 17	1-2	B	
SR 3	3-5	B	
SR 13	3-5	B	
SR 27	3-5	M	
SR 8	6-10	B	
SR 9	6-10	B	
SR 10	6-10	B	
SR 19	6-10	B	
SR 21	6-10	B	
SR 25	6-10	B	Yes
SR 2	6-10	M	Yes
SR 5	6-10	M	
SR 24	6-10	M_CAS	
SR 14	11-20	B	
SR 20	11-20	B	
SR 23	11-20	B	
SR 26	11-20	B	
SR 7	11-20	M	
SR 22	11-20	M	
SR 15	20 +	M_CAS	
SR 4	20 +	M	
SR 18	20 +	M	

Note. B = bachelor's degree; M = master's degree; CAS = Certificate of Advanced Study.

Of the seven teachers who responded to the structured e-mail interview, two indicated having 0 to 5 years' teaching experience; two reported having 6 to 10 years' experience; two responded as having 15 to 20 years' experience, and one indicated having over 30 years' experience (see Table 2). Overall, then, of the seven teacher participants represented in the e-mail interview data, the greater number of respondents, five reported having more than five years' teaching experience, with three indicating 17

or more years of experience. The interviewees participating also were represented by a majority with master's degrees, with six of the seven participants reporting having a master's degree including one with a certificate of advanced graduate study as well. One interviewee worked primarily in special education with that training and perspective, reporting ten years' teaching experience.

Table 2

Qualifications of Interview Respondents

Identification code	Years teaching experience	Degree(s)
IR4	1	M
IR2	2	B
IR3	8	M
IR7	10	M
IR6	17	M
IR5	18	M
IR1	33	M_CAS

Note. B = bachelor's degree; M = master's degree; CAS = Certificate of Advanced Study

Problem and Research Questions

The focus of the problem was related to the effects of policy-driven expectations for inclusion in the small, rural elementary school in southern Maine which was the center of this study. Along with inclusive general education classrooms came the need for teachers to help all students perform to meet state targets under the federal NCLB in 2001 and the subsequent ESSA of 2015. As of the most recent information available at the time of this study, the school was still not meeting targets for the student population measured, especially for the subgroup of students with disabilities (Maine Department of Education,

2018a). The problem was discovering the preparation and perceived readiness of teachers at the school to help students with varied special needs to be successful in the inclusive classrooms. Toward this end, the three research questions for this study focused on the preparation teachers perceived they had, the professional learning needed, and the preferred mode for learning related to planning for students with diverse needs in their classrooms. The research questions used to guide this project study were:

RQ 1. How prepared do teachers believe they are for addressing diverse student needs in an inclusive general education classroom?

RQ 2. What professional learning do teachers perceive they need in order to meet diverse student needs in the inclusive classroom?

RQ 3. What is the preferred way to access the learning opportunities related to these needs?

Findings in Relation to Problem and Research questions

This project study research was centered on the preparation of the teachers in this small rural elementary school and their feedback as to the needs as teachers for helping students in their inclusive general education classrooms. The findings from the study are presented and analyzed in more detail in the sections that follow. One of the primary outcomes was that none of the teachers participating in the survey or the follow-up e-mail interview reported being unprepared for the challenge of teaching in an inclusive classroom, yet this challenge was a key concern related to the problem at this school. Messages that had surfaced through the literature review suggested that teachers in those surveys or studies did feel unprepared for the endeavor.

The results addressed the research questions, including level of preparation, professional learning needs, and modes preferred for learning. Although the teachers in this project study did not indicate they believed they were unprepared, they did reveal specific areas for which they perceived the desire for more training to help address the needs for more effectiveness in teaching in the inclusive classroom. In the summary of findings related to the specific areas of professional learning needed, teachers specified wanting professional learning in strategies for differentiation, classroom management, and behavior management.

Even though preferred mode for professional learning included workshops, the message also was strong for ways to have continuous embedded support and opportunities to see inclusion strategies in practice. In the next sections, the specific data results will be discussed and analyzed in relation to the themes that emerged as related to the research questions. The outcomes are also compared to themes that had been revealed from the literature review and from the theoretical base for the study.

Patterns, Relationships, and Themes Aligned with Research Questions

Because of the nature of the research questions in targeting preparation and professional learning needs and similarly the aligned problem being addressed in the study, it is important to compare the data collected on the experience, academic degrees, and formal preparation backgrounds of the teachers participating in the study**.** The analysis of the data also includes comparisons with the 2012 NCES SASS Teacher Survey (Goldring et al., 2013) from which several of the project study survey questions

were adapted. The analysis also notes comparison to themes from literature reviewed and theoretical base for the project study.

Overall, the study respondents provided insight on their perceived readiness to teach in the inclusive classroom (Research Question 1) and needs for professional learning to take on the role (Research Questions 2 and 3). The themes that emerged were linked to teachers' perspectives on preparation, confidence, and specific professional needs for inclusive education. None of the 27 survey respondents indicated they believed they were unprepared for differentiating instruction, classroom management or discipline, or varying instructional strategies. In addition, the interview respondents weighed in with more detail on the roles of training as compared with experience, confidence, and professional learning needed for the inclusive classroom. The study findings suggested ways in which the project study site administrators could help teachers strengthen levels of preparation for inclusive education.

Coding and theme development. With the data collected from the interview, the process used to discover themes included analysis of repeating messages, which were assigned codes (Creswell, 2012; Glesne, 2011; Merriam, 2009). Codes emerged as data were collected and the more common codes fell into thematic groupings or themes. Because of the narrow focus of the study, there was some overlap in theme categories. For example, even though codes revealed for professional needs included three distinct areas of differentiation, using a variety of instructional strategies, and classroom management, these could logically be combined under the larger theme of professional learning needs. The themes of confidence and preparation had some overlap in the codes

related to training and staying updated. See Tables 3 and 4 for a summary of codes and how these codes were connected as themes.

Table 3

Codes and Occurrences

Code	#	Code	#
Willingness to change/stay updated	4	Differentiated assessments	4
Opportunities to see inclusion strategies/inclusion classrooms in action	4	Differentiated instructional strategies	8
Exposure to training/tools	7	"Tricks" from experienced teachers	3
Training vs. experience	6	Access to a variety of resources/tools	7
School-based mentors/coaches/trainers	5	Classroom management strategies	4
In-house support	7	Classroom community building	3
Regular training/guidance/check-ins	3	Student relationship building	3
Access to in-house specialists	3	Behavior management	6

Table 4

Codes Mapped to Themes

Themes -- Codes	Themes -- Codes
Confidence / readiness:	Professional learning needs :
- Willingness to change/stay updated	Sub theme 1: differentiation
- Opportunities to see inclusion strategies/classrooms in action	- Differentiated assessments
- Exposure to training / tools	- Differentiated instructional strategies
	- Access to a variety of resources/tools
Preparation:	
- Training v. experience	Sub theme 2: variety of instructional methods
- "Tricks" from experienced teachers	- Differentiated instructional strategies
	- Opportunities to see inclusion strategies/classrooms in action
Collaboration:	
- School-based mentors/coaches/trainers	Sub theme 3: classroom management
- In-house support	- Classroom management strategies
- Regular training/guidance/check-ins	- Classroom community building
- Access to in-house specialists	- Student relationship building
	- Behavior management

Findings related to Research Question 1. Question 1 was focused on the teachers' perceptions of their level of preparation for teaching students with diverse needs in their classrooms. Data collected pulled responses from the online survey as well as from the structured e-mail interview. In the online survey a series of three questions were aimed at soliciting teachers' perceived level of preparation in specific areas related to the inclusive classroom. These questions probed how prepared teachers believed to *1) differentiate instruction in the classroom, 2) handle a range of classroom management or discipline situations, and 3) use a variety of instructional methods.* Overall, in

preparation, experience outweighed training from the perspectives of the interview respondents. The project survey respondents indicated that they did not feel unprepared in any of the three areas specified. The data from the interview respondents suggested that preparation for differentiation and classroom management are specific areas of need.

The structured e-mail interview served to delve more deeply into the question of preparation. Related to Research Question 1, interview respondents gave input as to the relative importance of training and professional development as compared to teaching experience. Five of the seven interview respondents indicated that experience was at least equal or stronger in importance to training in preparing to meet the needs of students in an inclusive classroom. These respondents spanned from having 0 to 5 years' teaching experience to over 30 years', with the majority with seven or more years' experience. Only two of the interviewees considered confidence as a key issue to being prepared, although these two had ten years and seventeen years of experience respectively. Others acknowledged the importance of confidence only with the alignment of training and support as factors as well.

The theme of preparation emerged from two perspectives: the role of training as compared with experience, and specific areas of preparation. From the structured e-mail interview, experience was considered by respondents as stronger for preparation for the inclusive classroom than training. Interview respondents were identified as "IR" (see Table 2). IR 2 and IR 4 had the least experience of the interview respondents and indicated that experience was the strongest factor in preparation for inclusion. Those interview respondents with more experience, IR 3 and IR 7, with between 8 and 10 years'

experience, suggested that factors other than training, such as flexibility from traditional approaches, were more important than training or experience or exposure to intensive needs populations. Of the interview respondents with 17 or more years of teaching experience, IR 1, IR 5, and IR 6, two of the three responded that experience was stronger as a factor in preparation for teaching successfully in an inclusive classroom.

Of the survey respondents, labeled as "SR" (see Table 1), the message was more of the need for ongoing changes and the need to keep up with the challenges and the field. Survey respondents SR 9 and SR 21 reported the strongest perspective advocating for the need for keeping up with the changing practices and needs. SR 21 stated, "You can never stop learning or think you have learned all of the necessary 'tricks of the trade' to meet students where they are at." Those interview respondents with more experience leaned toward emphasis on more flexibility and need to change, as did survey respondents SR 9 and 21, who both had eight or more years of experience in teaching.

Regarding the theme of the role of confidence in teachers' readiness to teach in the inclusive classroom, the survey respondents did not address the question, other than to indicate their perceived level of preparation for the inclusive classroom for classroom management concerns, differentiation, or flexible instructional strategies. None of the 27 survey respondents considered himself or herself unprepared in any of these areas. Six of the seven respondents acknowledged that confidence is a key factor in readiness for teaching in the inclusive classroom; however, five of the six specifically added that training, mentoring, and supports must be in place to enhance and help confidence levels. IR 4 was an outlier in that he or she responded that confidence was not the issue in

readiness for inclusion; IR 4 had the least teaching experience of all of the interview respondents with only one year of teaching experience.

The theme of preparation (Research Question 1) overlapped with findings related to specific areas of professional learning needed (Research Question 2). Of the survey respondents, the need for more preparation in the area of differentiation was highlighted by most, although none indicated feeling unprepared in that area. In the interview findings, three of the seven respondents (IR 2, IR 5, and IR 7) specified differentiation as a need to be prepared for the inclusive classroom. These respondents were spread over years of teaching experience. In the area of preparation for classroom management, the majority of survey respondents reported that they believed they were well-prepared in this area. In the interview, three of the seven respondents (IR1, IR 2, and IR 3) singled out classroom management and classroom community building as areas of need for professional learning to teach in the inclusive classroom. Again, these interview respondents spanned the range in years of experience teaching.

The survey findings on the theme of specific areas needed for professional learning varied. For the most part, the survey areas specified by survey respondents overlapped with those outlined from the interview results. SR 19 listed "differentiated assessments, behavior management, and appropriate accommodations." SR 12 specified "more classroom management strategies." The respondent SR 11 was alone in responding that he or she needed more preparation for teaching English language learners (ELLs) than those identified with special needs. Respondents SR 22, SR 21, and SR 9 all responded by aligning with changing demands and keeping up with a variety of

strategies. The interview data suggested an additional theme of collaboration with respondent IR 3 suggesting collaboration among students in the inclusive classroom and respondent IR 1 recommending a team for ongoing professional learning and carryover from consultants.

The research questions and problem focused on preparation and professional learning perceived as needed by the teachers at the school site. The theme of preparation was evident in the findings and allowed insight into Research Question 1 related to perceived level of preparation. The survey provided an opportunity for a teacher to report his or her perspective on personal level of preparation in areas of strategies and skills that are key to success for teaching in an inclusive classroom. Because the numbers in this qualitative survey were small, the trends noted cannot be used to project needs for the entire school; however, the patterns are of interest. As a source for triangulation, these patterns related to preparation (Research Question 1) were reviewed in comparison with the most recent 2012 NCES SASS Teacher Survey data for 2500 Maine elementary teachers for responses in these areas (Goldring et al., 2013). The comparisons are discussed later in this section.

It is important to reiterate that the survey data for questions 12 through 14 indicated that none of the 27 teacher respondents in this project study believed that they were unprepared in the areas of differentiation, classroom management, or varying instructional strategies. The next consideration is how many perceived that they were well-prepared and how many believed they were moderately prepared. The responses to survey question 12 were focused on how prepared the teachers believed they were to be

able to differentiate in the classroom. In the 2012 NCES SASS Teacher Survey (Goldring et al., 2013), 2500 Maine teachers were represented in the data. For this question on the SASS Teacher Survey related to preparation for differentiating instruction, of the teachers responding with five years' or less teaching experience 24.3% indicated they believed they were somewhat prepared to differentiate instruction when they started teaching and 53.5% perceived that they were well prepared in this aspect of teaching.

Compared with the data from the 2012 NCES SASS Teacher Survey (Goldring et al., 2013), the findings in this project study suggested that of the nine teachers with 1 to 5 years' teaching experience over half believed they were only moderately prepared to differentiate. In contrast with the SASS Teacher Survey data indicating 73.8% of participating teachers with 0 to 5 years' teaching experience perceived that they were well prepared to differentiate instruction, only three of the six project study survey respondents at this school with 1 to 2 years' teaching experience responded that they believed they were well prepared to differentiate. Of the remaining three teachers of the subset group with 1 to 5 years in teaching (those with 3 to 5 years' teaching experience), none indicated they believed they were well prepared to differentiate instruction.

For Question 13 in the project study survey related to preparation for class management and discipline situations, of the survey respondents grouping with 1 to 5 years' teaching experience, three of the nine teachers in the subset responded that they were somewhat prepared and over half indicated they believed they were well prepared in that area, with two thirds of those with 1 to 2 years' experience responding as well prepared. The 2012 NCES SASS Teacher Survey (Goldring et al., 2013) data for teachers

with 0 to 5 years of experience was more closely split with 40.7% responding that they were somewhat prepared and 48.3% indicating they believed they were well prepared in the area of classroom management and discipline.

For the project study survey Question 14, related to preparation to be able *to use a variety of instructional strategies*, the findings from project study survey respondents showed an even balance among teachers responding with 1 to 5 years' teaching experience. Twelve of the 27 survey respondents (or 44.4%) responded that they believed they were moderately prepared and the same percentage indicated they were well prepared in that area. The data from the 2012 NCES SASS Teacher Survey (Goldring et al., 2013) revealed a much greater percentage of teachers with 0 to 5 years' teaching experience who believed they were confident in their ability to vary instructional strategies. In the 2012 NCES SASS Teacher Survey, 74.4% indicated they were well prepared, and in contrast only 25.2% of the teachers in the 2012 SASS Teacher Survey responding that they believed they were somewhat prepared.

Findings related to Research Question 2. Research Question 2 was directed toward what professional learning the teachers perceived they needed to help the students with diverse needs in their inclusive classrooms. The online survey contained one question asking how much more teachers believed they needed. Only 26 of the teachers responded to that question, with three teachers responding that they did not believe they needed any more professional learning to meet these student needs. The remainder of the teachers' perceptions of needs for more professional learning for diverse student needs varied: nine of the 26 reported they would only need one to five hours of development;

seven indicated they believed they would need six to ten hours; three responded as needing 11 to 20 hours, and four indicated needing more than 20 hours. As reported earlier, of those specifying areas of need, the interview respondents identified the areas of differentiation, and classroom management and classroom community building. The other interview participants indicated that they saw the need focused on keeping current and building the ability to change as needed to meet the demands of the inclusive classroom.

The teachers' responses to the three questions aimed at specific instructional needs also weighed in on Research Question 2. For *differentiating instruction* nine (one third) of the 27 teachers answered that they were "always ready for more" preparation, and another 9 indicated they believed they were "moderately prepared." The survey question focused on preparation for *a range of classroom management and discipline situations* for the inclusive classroom, resulted in nine (one third) of the 27 teachers responding that they were "always ready for more" preparation, and another four teachers who answered that they believed they were "moderately prepared" in this area. The final survey question targeting being prepared *to use a variety of instructional methods*, resulted in seven of the 27 teachers responding to the survey indicating they were "always ready for more" preparation in that area, and another eight teachers indicating they believed they were only "moderately prepared" in that area. As reported previously, none of the respondents indicated that they believed they were unprepared in any of these areas.

With limited specificity yielded from the survey for Research Question 2 as to areas of professional learning needed related to working with student needs in the inclusive classroom, questions 3 and 4 of the e-mail interview expanded on that research question. Although the teachers' interview responses were varied, the needs to develop knowledge and skills in differentiation, classroom management, and building classroom community were mentioned by interview respondents in various ways. One interview respondent with two years' experience as a teacher and previous experience as an educational technician focused on learning more to be successful with students with behavioral needs. Another two targeted learning about student abilities and unique needs and triggers, and how to address those needs, although this aligns with the theme of differentiation.

In comparison with the 2012 NCES SASS Teacher Survey (Goldring et al., 2013) aligned with Research Question 2 for this project study is the area of participation in recent professional development activities in areas related to the inclusion classroom. In the data from the NCES SASS Teacher Survey, 39.1% of the teacher respondents from Maine indicated that they had participated in professional development activities related to discipline and classroom management in the past 12 months. This project study findings showed similar levels in professional development areas related to the inclusion classroom with only one third (9 of 27 or 33.3 %) of the teachers responding to the survey from the study school site indicating they had participated recently in professional development workshops or conferences related to inclusion.

Directly aligned with the 2012 NCES SASS Teacher Survey (Goldring et al., 2013), Questions 17 and 18 from the project survey probed whether teachers responding had participated in professional development related to teaching students with disabilities and students who are English language learners. In the project study survey only two of 27 (or 7.4%) of teachers responding indicated that they had professional learning activities directed toward teaching students with disabilities and even fewer with only one of the 27 (or 3.7%) indicating professional development activities in working with English language learners. In both categories, project study teacher survey respondents specified that these trainings were off-site with no trainings on-site at the school. In comparison, in the 2012 NCES SASS Teacher Survey, of the 2500 teacher respondents from Maine asked the same questions related to the most recent 12-month period, 27.7% of the 2500 Maine teachers indicated having participated in professional development or training in teaching students with disabilities and 9.1% in workshops or professional learning for teaching English language learner students.

Findings related to Research Question 3. Research Question 3 focused on getting teacher input as to teachers' preferred ways or mode for their professional learning for meeting the needs of students in the inclusive classroom. The online survey posed that question and the responses were varied, with the vast majority of teachers (22 of the 27) indicating they would choose professional learning in the format of *workshops.* This question offered choices that were not mutually exclusive. Six of the teachers reported *coursework* as one of their preferences. Eleven of the 27 teachers also were in favor of *coaching and mentoring*, and 12 of the 27 teachers included *professional*

learning groups among their choices. One teacher chose independent study, and one commented that he or she preferred a variety of opportunities based on the time of the year but would request not taking time away from the classroom.

The e-mail interview extended the question of preferred mode for delivery of professional learning by probing what the teacher respondents would recommend as ideal professional development to address needs for the inclusive classroom. A few of the interview respondents mentioned visiting other schools or observing other teachers to see successful inclusion in action. Another recommendation mentioned more than once was having on-site mentors for check-ins.

Findings and themes in relation to literature review. The outcomes revealed several areas of alignment with the literature review and most importantly with the theoretical base serving as underpinning for the project study. The themes of *teacher preparation, readiness for inclusion, confidence,* and the need for *collaboration* were in evidence in the project study data and in the literature review. Further, the themes related to *sociocultural* perspective, based on the work of Vygotsky (deValenzuela, 2007; Vygotsky, 1978), and *transformative learning* as presented in the work of Mezirow (Dirkx et al., 2006; Kitchenham, 2008; Mezirow, 2000; Mezirow, 2006) were in evidence in the study data. The analysis of the data showing alignment with the theoretical base will be discussed first and then the themes that aligned with the findings in the literature review will follow.

Conceptual framework. The themes emerging from findings in this study showed alignment with the theoretical framework primarily through the follow-up e-mailed

interview responses. The themes related to the research problem surfaced more through the interview than in the survey. The tenets of sociocultural theory based on the work of Vygotsky (deValenzuela, 2007; Vygotsky, 1978) surfaced in the interview responses emphasizing the importance of social context beyond individual student needs, in building relationships with and among students. In discussing the needs to address requirements for including diverse learners, one interview respondent stated, "A teacher needs to be able to build relationships with his or her students. This helps build mutual respect and helps to build a classroom community." In responding to the question of knowledge and skills needed for the inclusion classroom, another teacher also prioritized "community building" in the classroom. Another teacher emphasized the importance of discovering what helps in addressing the diverse student needs and "how to help other students work in collaboration with students who have special needs."

The interview data from the study findings also showed evidence aligned with the framework of Mezirow's theory of transformative learning (Dirkx et al.,2006; Kitchenham, 2008; Mezirow, 2000; Mezirow, 2006). For example, questions included the interview probed teachers' beliefs regarding the role of experience in professional learning as compared with training. The process of learning through experience aligns with Mezirow's theory that learning evolves through exposure and practice. Both the interview and the survey tapped input on the teacher's desire to seek more professional learning and openness to change. These themes are consistent with the journey for teachers in learning to create a successful inclusion classroom. The professional learning needed to successfully embrace and practice inclusion is related to the types of learning

that Mezirow described, “elaborating existing frames of reference, learning new frames of reference, transforming points of view, and transforming habits of mind” (Mezirow, 2000, p. 19).

In the survey, teacher respondents were given the choices in reflecting on their level of preparation from *not prepared, moderately prepared, well-prepared, and always ready for more.* In Questions12 (differentiation), 13 (classroom management), and 14 (varying instructional strategies) of the online survey in the study, survey respondents indicated they were *always ready for more* preparation opportunities in the following proportions respectively: differentiation nine of 27; classroom management nine of 27; and prepared to use a variety of instructional techniques seven of 27. The data represented teaching experience spreading among the 27 survey respondents with one-third of teachers having 1 to 5 years’ teaching experience; one third with 6 to 10 years’ experience, and one third with 11 or more years’ experience, including three teachers with over 20 years’ teaching experience.

Given these findings, the proportion of willingness for more preparation at this school was notable. In a comment from the survey data, one respondent (SR 21) with 6 – 10 years’ teaching experience stated:

> I’m not sure that you can put a time limit on learning how to meet diverse needs. Every year, teachers are faced with different challenges and more needs. I truly believe that teachers should have guidance and support yearly to help meet these diverse needs. You can never stop learning or think that you have learned all of the necessary "tricks of the trade" to meet students where they are at.

Also reflecting transformative learning for inclusion, when indicating how much more professional learning would be needed, another survey respondent (SR 9) wrote,"I feel as though this is an ever changing field that requires constant upkeep with the latest best practices." Also aligned with Mezirow's theory of transformative learning and the time needed to allow for progression of learning stages or experience, four of the seven interview respondents prioritized experience over training in preparing teachers for the inclusive classroom. One interview respondent (IR 6) stated that, even though training and professional development are important as a base, "experience enhances preparation," alluding to a progression of preparation after initial training, recalling Mezirow's theory of the stages of transformative learning. Another respondent (IR 3) emphasized the importance of "teacher willingness to change how things are traditionally done."

Teacher preparation. During the years between the enactment of the 2001 NCLB and its 2015 successor, ESSA, the push for inclusion had been aligned with the theme of teachers' concern for level of preparation to teach in an inclusive classroom. During 2009 through 2011 there was a cluster of publications revealing this concern. The list included the longitudinal research reported by Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2009), as well as the joint white paper by the National Center for Learning Disabilities and the American Association of Colleges for Teacher Education (Blanton et al., 2011). Also included in this flurry of concern for teacher preparation for the inclusion movement was the report on the results of the MetLife Survey of Teachers (MetLife, Inc.,

2011). These publications served as a springboard for the research in the project study herein.

The findings in this study did not sound an alarm that teachers believed they were unprepared. On the other hand, the data did suggest willingness for more professional learning related to areas impacting the ability to address the needs of diverse learners in the classroom. Based on data from the online survey in this study, nine of 27 respondents indicated they had participated in professional learning activities related to teaching in an inclusive classroom in the last 24 months. Drilling down to involvement in specific professional development or workshops in the past 24 months related to teaching students with disabilities, only two of the 27 teachers indicated participating in these professional development activities, and only one of 27 teachers responded that they had taken part in professional development for working with English language learner students. In both categories, this training was only off-site. Coupled with the survey data related to perceived level of preparation in three areas related to needs to teach in an inclusive classroom, the comparison with the literature showed the respondents in this study indicating a need to solidify their preparation. On the question related to level of preparation for differentiating instruction, only two of the nine teachers with 1 to 5 years' experience indicated they believed "well-prepared." In contrast, on the question of ability to use a variety of instructional techniques, four of the nine teachers with 1 to 5 years' teaching experience responded that they believed "well-prepared" in this area. Of the same group, five of nine teachers indicated being "well-prepared" for the area of class management and discipline situations. For both of these areas, three of nine teachers of

the survey respondents with 1 to 5 years' teaching experience assessed themselves as "moderately prepared." Even though none of the respondents in this survey chose to describe themselves as "unprepared" in any of these areas, the proportion responding that they were "moderately prepared" would suggest opportunity might be welcomed for more professional learning. One of the interview respondents with over 30 years' teaching experience (IR 1) commented,

> I was sitting on an interview team the other day . . . and we were bemoaning the fact that the students coming out of education programs just don't seem ready to teach. They don't know the latest research, they just don't seem prepared. . . The best PD is going to come from onsite – principals, teachers, hiring consultants – because it is ongoing PD and that is the best.

Teacher readiness for inclusion. In this project study, addressing this theme directly, Research Questions 1 and 2 focused on how prepared teachers consider themselves for teaching in the inclusive classroom and their needs to prepare for this role. The related data from this study supported the findings from the literature review that teachers are looking for more preparation and opportunities for professional development related to teaching students with special needs in an inclusive classroom. Similar to the findings from studies by Hettiarachchi and Das (2014), Tiwari et al. (2015), and Yada and Savolainen (2017), this study revealed the need for more preparation in working with students with disabilities, especially among general education classroom teachers. Although some teachers responding to this study's survey indicated they believed they were "well-prepared" in some areas related to teaching in the inclusive classroom, many

responded as being “moderately prepared” or more revealing, many responded as “always ready for more.”

In the survey in this project study, on the question related to level of preparation to differentiate instruction, nine of the 27 of the teachers responding indicated they believed they were “well-prepared” in this area; however, an equal percentage responded that they were only “moderately prepared” and an equal number responded that they believed they were “always ready for more.” The survey question probing preparation to handle a range of classroom management and discipline situations, even though 14 of the 27 respondents assessed themselves as “well-prepared,” four of 27 believed they were “moderately prepared,” and a strong nine of 27 responded that they were “always ready for more” learning in that area. In response to the last question focused on specific areas of preparation related to skills for the inclusive classroom that related to the ability to use a variety of instructional methods, 12 of 27 assessed themselves as “well-prepared” in this area; however, there were still 15 of 27 (over half) who left the door open as needing or wanting more preparation, with eight of 27 who responded that they were “moderately prepared” and seven of the 27 who indicated they were “always ready for more preparation.” These results support the findings found in the literature indicating need and desire among teachers for more preparation for inclusive education.

Teacher confidence. The findings related to the theme of teacher confidence were not as easily compared with the studies in the literature review. The studies by McGhie-Richman et al. (2013), Pancsofar and Petroff (2013), and Spratt and Florian (2015) revealed an alignment of teacher confidence with the frequency of related professional

development or university courses. From the survey findings in this project study, only four of 27 teacher respondents had participated in university courses related to inclusion education, and only nine of 27 had recent professional development related to inclusion, with three of 27 (under 10%) with specific professional learning for working with students with disabilities or English language learners. There was no question related to confidence on the survey. In the interview, the question of confidence was addressed in relation to professional development or training as compared with experience. Although confidence was acknowledged by several of the interview respondents, it was not directly acknowledged as stemming from professional development or training, and experience was given equal or more weight.

***Collaboration*.** Collaboration emerged as a theme in the interview portion of the project study data. The trend was toward emphasis of the need for mentoring and sharing techniques, including requests to visit others' classrooms to see inclusion in action. The studies by Bouillet (2013), McGhie-Richman et al. (2013), Nichols and Sheffield (2014), and Shady et al. (2013) suggested the importance of collaboration as a habit for building the capacity for support school-wide in order to make inclusion work effectively. This message was evident in the findings from the interview in this project study in what teachers recommended in planning for professional learning for inclusion.

Handling of Discrepant Cases

Cases were reviewed and analyzed considering whether the backgrounds of the teachers responding and the classroom contexts were unique when compared with others in the participant respondent pool. Although several of the responses from these unique

or discrepant cases were considered and reported, the responses had to be weighed differently, and often the responses did not align with patterns or themes emerging. There were two such respondents, who in effect could be characterized as representing two ends of the continuum of experience and current teaching role. One teacher reported having over 30 years experience, holding master's and certificate of advanced graduate study degrees, and serving in the role of an academic skills coach. On the other end of the spectrum, another teacher beginning his or her second year in teaching reported having students with extreme behavioral needs with no support. Both cases provide valuable data; however, the data from these teachers were outside of the patterns and input from the majority of the other teachers participating in the study.

The teacher with over 30 years of experience and advanced degrees indicated no need for any professional learning related to the inclusion classroom. The responses from this teacher were unusual because of the evident level of perspective and leadership role. Because of the teacher's current role as a coach, even though still teaching and modeling, his or her viewpoint was more that of a mentor and the data had to be tempered in that light.

The other discrepant case not fitting the patterns in the data was a teacher new to the role and expressing feelings of being overwhelmed by the dynamics of the current classroom and the behaviors in evidence. The teacher acknowledged in the interview that the students focused on were "outlier kids" and mentioned several times there was "NO support" (sic) for them. The teacher stated:

> The issue isn't how to meet the academic needs of ELL [English language learners] or IEP'd students, but to meet the needs of kids who are too behaviorally challenging to be successful without a ton of supports above whole class and individual incentives, when there is no support.

The latter case data input could help the school's administrators and mentors to tailor in-service supports and training for newer teachers (0 to 2 years).

Evidence of Quality

Inherent in electronic sources for data collection and review is access to a written record. Because of the electronic format of the data collection instruments, a written electronic record was available for all responses. The online survey system provided a written record of all responses, both for closed-ended and open-ended questions. The follow-up structured e-mail interview also provided an automatic written electronic record of the responses. As responses were collected from both instruments and data collection mechanisms, I made note of responses and kept a continuous journal of points made and began to analyze for codes and alignment of patterns and themes (see Tables 3 and 4 for codes and themes that emerged). Samples of journal entries for responses and alignment of data are included in Appendix G.

I contacted e-mail interviewees for member checking. Interviewees were provided with themes drawn from their responses and asked if there were any misrepresentations. Another source for quality was the comparison with the public data from the 2012 NCES SASS Teacher Survey (Goldring et al., 2013). The questionnaire survey instrument in this project study used questions adapted from the 2012 NCES SASS Teacher Survey,

and the data collected in this study was compared with the data available from the 2012 NCES SASS Teacher Survey.

Summary of Outcomes

The problem addressed in this project study is the level of preparation of teachers for meeting diverse learning needs for all students included in the general education classroom. The project study site was a small rural elementary school in southern Maine. Of the 44 teachers invited to respond to an anonymous online survey, 27 participated. A follow-up structured e-mail interview had seven respondents.

One key outcome in this study is the indication by all teachers responding that they did not feel unprepared for teaching in the inclusive classroom, although half of the 27 teachers indicated they were only moderately prepared in one or more of the three targeted areas: differentiation, classroom management, or using instructional strategies related to inclusion. Of the 27 teachers, two thirds responded indicating they believed well-prepared in one or more of these three areas. Related to receptiveness and need for professional learning for inclusion, a little over one-third of the 27 teachers indicated they believed they were “always ready for more” professional development opportunities in one or more of these three areas.

The outcomes address the problem and Research Question 1. The survey asked whether teachers had participated in any workshops or conferences on teaching in the inclusive classroom, and over half of the 27 indicated they had not taken part in any such training. The survey also queried how much more training the teacher respondents believed they needed to address teaching students with diverse needs. Only three of the

27 teacher survey participants answered “none,” with over half responding that they needed up to 10 more hours. Through the interview, respondents gave mixed input as to whether confidence, experience, or training are bigger factors in being prepared for the inclusive classroom.

Research Question 2 targeted specific areas the teachers believed they needed more professional learning. Through the interview, participants targeted knowing student needs and best practices as most important, including differentiating and classroom management and community building. Through the survey, in the area of differentiation only one third responded as feeling they were well prepared in that area, and two thirds responded as feeling moderately prepared or always ready for more training. In the area of discipline and classroom management, of the 27 teachers responding to the survey, half indicated they believed well prepared in that area, with half indicating they believed moderately prepared or were ready for more professional learning in that area. For the question asking whether respondents believed they were able to use a variety of instructional methods, a little fewer than half of the 27 indicated they were well prepared.

Research Question 3 tapped feedback on the modes in which the teachers preferred to learn. The survey responses strongly favored workshops as the preferred mode for professional learning, with over two thirds of the 27 choosing that option. This question was not mutually exclusive and participants could choose more than one answer. The next most preferred were working with mentors or coaches and working in professional learning groups, with slightly less than half of the 27 choosing either of these options as well. In the interview, respondents echoed the need for mechanisms for

continuous regular training and support on-site and being able to visit other classrooms or schools to see inclusion strategies in action.

Both the survey and the interview yielded valuable data to help in addressing professional development needs related to teaching in the inclusive classroom at the school. The participants in the study indicated receptiveness to professional learning in several areas, including differentiation, classroom management including behavior management, and varying instructional strategies. The teachers revealed that in addition to workshops and direct instruction that they also would like to have in-house support and coaches so that there could be ongoing sources for learning and feedback. They also recommended that they be given opportunities to observe inclusion strategies in practice.

Project Based on Outcomes

The findings of this project study research yielded some useful data in order to plan a project. Because of the small population and sample size anticipated, the survey questionnaire provided initial collective data. The survey also served as a springboard for follow-up interviews aimed at drilling down for more information and perspective on the research questions, which were related to perceived teacher preparation needs, as well as professional learning indicators, related to working with all learners in an inclusive classroom. Participants reported the need for more professional development in relation to differentiation, varying instructional strategies, and classroom management and community building. The theme also emerged related to the need to have in-house mentors or coaches to allow the means for continuous professional learning and

collaboration in these areas. Based on the findings, the proposed project would fall in the genre of professional development.

Because the project study research showed a preference for workshops as an avenue for learning, the project would include a workshop to address the areas of need for professional development; however that would be only a portion of the three-part training and professional learning plan. Due to the message relating to having in-house continuous means for support and coaching on a regular basis, in addition to access to outside consultant services, embedded coaches would be part of the plan. And finally, the project would incorporate collaboration using smaller groups of teachers or learning cohorts to allow for sharing and mutually beneficial observations and feedback. In the next section, the proposed project will be described in depth.

Section 3: The Project

In order to address the professional learning needs I identified, I developed a project, the genre for which was professional development. Although the findings in this study included a preference by many teachers for workshops, there was a clear desire for opportunities for teacher observations. In addition, many participants addressed the need for continuous development and support. Embedded coaches or mentors, participants noted, were needed to support the teachers as they develop skills for helping students with special and diverse needs in the inclusive general education classroom.

The purpose of the project was to provide a scaffolded professional learning design for teachers to strengthen their individual and collective capacities to be successful in the inclusive classroom. (See Appendix A for project details and materials). The project plan had two expectations. First, with formal professional development opportunities, participating teachers would move forward in their personal learning to enhance their abilities to teach in the inclusive classroom based on personal goals. Second, with continuous support from embedded coaches and collaborative professional learning cohorts, participating teachers would strengthen as an inclusive team through shared professional learning activities including peer observations and feedback. Both goals will be measured using self-reflection and formative self-assessment, as well as by feedback from embedded coaches.

The professional development project design includes built-in opportunities for orientation to varied types of student needs in the inclusive classroom, classroom management, and instructional strategies including differentiation. Along with the

opportunity for individual development of skills and knowledge, group interactive learning and support are structured into the plan in grade-aligned cohorts. The cohorts will function as learning groups and have assignments to complete and bring back to the larger group for discussion. Another format that will be included for ongoing learning and group development will be the use of online resources and interaction. Even though the formal professional development project plan will include learning activities for 4 days, the days are planned with a timeline allowing specific assignments to be completed in the time between Days 2, 3, and 4.

Rationale

I chose professional development for the project genre based on the problem and the research questions. The questions probed what teachers needed to learn to be more effective in the inclusive general education classroom and how they wanted to learn. Inherent in the term *professional development* is the perspective that learning should happen in steps to allow for new views and new skills to evolve (see Hill, Beisiegel, & Jacob, 2013; Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). Based on the findings, it was clear that professional development for teachers in the inclusive classroom must be planned to go beyond the need for information. Study findings showed the need for more direction for instructional strategies, differentiation, and classroom management; however, the requests by participants also included a larger professional development system including embedded mentoring and coaching and opportunities to observe others and receive feedback on their individual practices. This expanded

perspective on professional learning needs suggested a dynamic approach with embedded coaches and time to practice and learn that went well beyond simple workshops.

The teachers participating in this study were clear that they wanted other options in addition to workshops to address their needs for professional learning. The teacher participants wanted the focus of offerings to be on developing skills to be more effective in managing and helping the students learn in what is a very complex classroom context (Parsons & Vaughn, 2013). Any plan for professional learning for this context should be planned to allow for the development of skills in stages (Antoniou, 2013; Campbell, 2017; Javed, 2017). Teacher participants indicated they wanted an opportunity for continuous learning. The learning planned must be scaffolded and interactive for teachers (Chen et al., 2015; Festas et al., 2015). The goal is to plan for the learning to carry over so that teachers can apply the skills and perspectives in their classrooms.

As researchers have noted, planning for more than one session is critical (Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). After the initial workshop session, the next session would allow for observations of effective inclusion classrooms for modeling input, and then opportunities to apply the learning in participants' own classrooms with observation feedback and discussion afterward (Snyder et al., 2018). In a review of 13 studies over 20 years in a professional development sequence, Charteris and Smith (2017) found that the teacher's role shifts to learner through training and over time. Embedded coaches are a key factor in this feedback and stepwise development plan (Koster, Bouwer, & van den Bergh, 2017; Mangope & Mukhopadhyay, 2015; Mitchell, Hirn, & Lewis, 2017; Snyder et al., 2018). A professional learning cohort for small group

interactions, discussion, and feedback is another key factor (Balta, Michinov, Balyimez, & Fatih Avaz, 2017). The cohort can serve as a vehicle not only for learning, but for group support and dynamics in professional learning.

The professional development project and professional learning plan are helpful in increasing participants' effectiveness in helping diverse learners in the inclusive general classroom in three ways. The first opportunity to help teachers strengthen their efficacy in the inclusive classroom is in providing teachers with access to requested information. Based on the research findings in the study, these areas are instructional strategies, ways to differentiate instruction and assessments, classroom management and approaches for behaviors, and collaborative practices. Second, in increasing opportunities for strengthening teacher effectiveness, embedding coaches and mentoring will provide a mechanism to support and develop teacher skills with feedback and guidance. The third strength of the plan is the embedded opportunity for continuous learning, a key factor for building the school's capacity for long-term growth and future success with inclusion.

The project plan relies on mechanisms for developing professional learning groups or cohorts. These cohorts are designed to allow for collaboration and growth reliant on planned peer support and investigation. Opportunities for peer observations and feedback among the cohort members will be scheduled during the duration of the project. For continuous improvement, check-ins within cohorts will be complemented with observations and feedback from the embedded coaches assigned to the cohorts. This plan provides input for informed feedback and alignment with practice on professional learning goals.

A key finding emerging from analysis of the data collected in this study was that teachers want their professional learning plan to include access to embedded coaches or mentors for support and feedback to allow for continuous growth and supported practice in addition to any workshops or organized large group work sessions. To support this, the coaches will have access to consultation from a local university program on inclusive education. The coaches will also be assigned to two cohorts of teachers and will meet regularly with them and with each other to assess growth and directions needed for continuous professional learning for themselves and the teachers. I designed this professional development project to address the professional learning needs identified in the findings by building an ongoing system for support and development for teachers. Ultimately, this system for continuous improvement among the teachers is aimed at strengthening ways to help students to be more successful as learners in a diverse inclusive general classroom.

Review of the Literature on Professional Development

The genre selected for the project was professional development. This genre was best aligned with the problem for this study, which was directly related to professional learning and teacher preparation needs for teaching in the inclusive classroom. I conducted the literature search using multiple databases, limiting the search to peer-reviewed journals and using Boolean operators and phrases targeting *professional development* AND *teachers/educators* AND *methods*. I expanded the search to include *professional development* AND *best practices*, adding in turn, *assessment*, *organizational*

development, *organizational change or theory*, and *continuous improvement* as keywords.

The results of the review of the literature provided guidance on developing the project in the following areas: going beyond workshops, scaffolding learning and practice, collaborating and observing peers' teaching, creating and utilizing professional learning groups, using technology to support peer learning groups, embedding coaches and mentors, evaluating professional learning effectiveness including student achievement, and creating a culture shift through organizational development and change focused on learning and continuous improvement.

Scaffolding and Planning for Professional Learning in Steps

In the review of the literature on best practices for professional development, there was a common theme for scaffolding and learning spread out to more than one-shot sessions or workshops. Studies found that professional development allowing for step-wise progression in learning and scaffolding was more effective than a single workshop and allows for differentiation according to learner needs (Chen et al., 2015; Festas et al., 2015; Kleickmann, Tröbst, Jonen, Vehmeyer, & Möller, 2016). Apart from differentiation, the studies by Hill et al. (2013), Mangope and Mukhopadhyay (2015) and Snyder et al. (2018) supported the premise that planning for professional learning in stages and in more than one session is most effective, with the study by Snyder et al. suggesting the level of engagement is greater with planning a succession of sessions over just one. Hill et al. revealed the need to build a base and design for small and continuous professional learning steps, and assess along the way. In reports of other studies

scaffolding and sessions planned with time in between for practice was found to allow for more than differing professional learner needs by allowing for reflection and practice, leading to change (Charteris & Smith, 2017; Chen et al., 2015; Festas et al., 2015; Greenleaf, Litman, & Marple, 2018; Liu & Zhang, 2014; Parsons & Vaughn, 2013). Furthermore, Florian and Spratt (2013) made a strong case for the need for professional learning time to acclimate and change as key to success in teaching, especially in inclusive teaching. Several researchers found evidence that professional learning planned to allow teachers time for reflection and inquiry is effective in professional development practices (Charteris & Smith, 2017; Liu & Zhang, 2014; Greenleaf et al., 2018; Parsons & Vaughn, 2013; Rodesiler & McGuire, 2015). Overall, the studies on best practices for professional development suggested the value of more than one session or planning for continuous learning.

Use of Collaboration in Professional Development

Several studies in the review of the literature on professional development were focused on the role or effectiveness of the opportunity for collaboration as part of professional learning. Suggesting the power of group support and inquiry, as well as planned opportunities to observe, practice, or discuss over a period of time during professional learning initiatives, several studies revealed the importance of incorporating collaboration and professional learning communities or groups in planning effective professional development. In a review of 40 studies, Vangrieken, Meredith, Packer, and Kyndt (2017) found ample evidence of the importance of professional learning groups to the success of professional development efforts, in both those groups established by

leadership or those by teachers themselves. Echoing these findings, Hadar and Brody (2013) noted the effect of the group dynamic in these professional development groups in bringing about shift and change, with growth in awareness. Nolan and Molla (2017) found that in establishing networks through professional learning communities, professional learning was fostered by the availability of more veteran teachers in the group to mentor and interact with those newer to the particular skill or topic. In the study by Stewart (2014), the findings suggested that professional learning will emerge with active and ongoing learning groups or communities in the school context. Studies also addressed the importance of collaboration in professional development and learning from a broader context (Suc, Bukovec, & Karpljuk, 2017; Vaughan & Henderson, 2016). The findings of Vaughn and Henderson and of Hung and Yeh (2013) pointed toward the value of both internal and external collaboration in professional development endeavors.

Use of Technology in Professional Development

The theme of professional learning groups and learning cohorts is repeated in some of the studies investigating the role of technology for on-line networking and collaboration among professional learners. While the study by Papanikolaou, Makri, and Roussos (2017) found collaboration and support among pre-service teachers in online training enhanced a blended approach to training, a study by Clench and King (2015) suggested that online training was successful because it provided an ongoing source of training and examples allowing for carryover to the classroom on a continuous basis. The findings of Matuk, Gerard, Lim-Breitbart, Linn (2016) and Asensio-Pérez et al. (2017) supported the value of using online technology as a platform for collaboration in

development of tools and learning designs, as well as providing opportunities for group reflections on practice. Other studies of the successful uses of technology for professional development include the study by Ab Rashid (2018) investigating interactions in professional learning incorporating the use of social networking for support and addressing shared professional challenges. Also represented in the review were two studies advocating for the use of videos for observations and models and podcasts, with the studies by Gonzalez, Deal, and Skultety (2016) and by Kennedy, Hirsch, Rodgers, Bruce, and Lloyd (2017).

Coaching and Mentoring in Professional Development Design

Coaching or mentoring was often either mentioned as an important professional design element in study findings or coaching or mentoring was the focus of studies in determining effectiveness and role in professional learning. First, in a study that addresses professional development design, Snyder et al. (2018) found that professional development had much more impact if the plan went beyond a workshop or workshops. The longitudinal study of teachers of disabilities in three districts in three states revealed that workshops even in a series need to be coupled with the support of on-site coaching. The review by Kretlow and Bartholomew (2010) of studies over 20 years yielded evidence for best practices for professional development. The findings from the 13 studies reviewed by Kretlow and Bartholomew suggested that elements for effective professional learning should include a continuous mechanism for feedback, modeling, observations, along with small groups. To address these needs, an embedded coach or intensive mentor would be needed. In their study investigating effective professional

development Mangope and Mukhopadhyay (2015) also found that a workshop or series of workshops alone were not as effective to support change, and concluded that mentors on-site in the organization were an essential element for success for professional learning designs.

Other studies mirrored the message that embedded coaches and mentors were important in designing professional development that will result in change and learning (Campbell, 2017; Grima-Farrell, 2015; Koster et al., 2017; Lane et al., 2015); Lang, Mouzourou, Jeon, Buettner, & Hur, 2017; Mitchell et al., 2017). Another group of study findings emphasized the need for something beyond workshops for successful professional learning, but suggested that there is evidence of an effective role for peer coaching (Alsaleh, Alabdulhadi, & Alrwaished, 2017; Mitchell et el., 2017; Tenenberg, 2016). In their study Wyatt, Chapman de Sousa, and Mendenhall (2017) found evidence of an effect on the culture of an organization with embedded coaches or mentors and peer coaching. In an analysis of 29 studies on the effects of embedded peer coaching on effectiveness of professional learning, Balta et al. (2017) found similar positive evidence reported on the value of peer coaching and the effects on cultures and level of interaction.

Assessment and Evaluation of Professional Development

There was some guidance for assessment and evaluation of professional development given by a study done by Blue, Chesluk, Conforti, and Holmboe (2015) of the Interprofessional Education Collaborative. The conclusion was that assessments and evaluations that were done of this collaborative's professional development activities were done without a consistent framework so yielded little overall to report as

effectiveness; however in their literature review categories for assessment of professional learning effectiveness included knowledge, attitudes, behaviors, and including individual and team results. Sando et al. (2013) reported on the results of an assessment and evaluation of a high stakes simulation professional learning project to instruct on a standard of practice in nursing. Both formative and summative evaluations were used. Because the learning in this case was linked to proving skills for practice linked to a standard, the objectives were required to be met; however, in the summative evaluation of this simulation training assessment included knowledge, attitude, and skills.

The ultimate assessment of the value of professional development for teachers is in the residual effect on student achievement. Meissel, Parr, and Timperley (2016) reported on their evaluation study of a professional development project targeting the ultimate result of lowering the gap in student achievement. This professional development project was conducted in New Zealand across 300 schools with three cohorts over a two-year period. The professional learning design included an embedded coach or expert in each of the participating schools. Findings in this evaluation showed that there were strong gains in reading and writing, and all learner groups. On the other hand, as the researchers acknowledge, it was unclear how student the learning groups were chosen. It was a vast project and the evaluation was for overall achievement gains, but the learning activities groups were not focused on any tiered learner group per se. The other question in these evaluation results stems from the fact that schools had to opt in to the project. So there is a question of whether there is an effect on findings stemming from the participants being among the selected schools and cohorts for this project.

Another evaluation study of the implementation of a commercially available mathematics professional development program was conducted by Jacob, Hill, and Corey (2017). The study was aimed at assessing and evaluating results for teachers and for student achievement after three years with this professional development initiative for instructing mathematics. The findings were that student achievement and instruction did not improve, although there was some gain among the teachers in the area of mathematics knowledge.

Organizational Change and Professional Development

The perspective of connecting professional development participants was studied by a few (Adoniou, 2013; Reeves & Drew, 2013). Both of these studies found that connecting individuals with the context of where they are working and practicing what they are learning is important. The findings of Reeves and Drew emphasized a systematic organizational approach including the development of networks of teacher learners and discovering how teachers and students learn best. The findings also suggested that professional learning should not be assessed as a one-time evaluation, but be assessed on an ongoing basis systematically to assess practice and change. Another study by Jones-Schenk (2017) was directed at the same connection of the individual with the context, empowering each professional learner while also recognizing the value of teams in the professional development change process. The teams showed that there was a diversity of thinking which the researcher aligned with the change process within an organization and professional development, but concluded that was part of an empowerment element.

Deschesnes, Tessier, Martin, and Couturier (2015) and Hung and Yeh (2013) investigated professional development framed in the context of change in schools. Based on the study by Deschesnes et al., professional development served as a change agent to improve schools overall. On the other hand, in their study Hung and Yeh concluded that a change environment must first be created in the culture of the school, and then as a next phase the culture could foster professional development teacher groups or communities and engage in a learning process within that context. Antoniou (2013) concluded with a similar message from a two-year longitudinal study of primary teachers. Antoniou linked effective professional development with the need for a supportive environment or leaders in the organization that encourage change.

Professional Development Aimed Toward Continuous Improvement

The perspective of organizational change is aligned with continuous improvement. In this literature review two studies emerged that targeted developing plans for professional learning with ways to embed continuous improvement. Gracia-Perez and Gil-Lacruz (2018) found that although the continuous training program for healthcare professionals was generally perceived as making improvements in the quality of care, the study data did not indicate any improvement. It was noted that the improvement would be difficult to measure conclusively. The other study by Jimerson (2016) described an instrument that could be used that linked the use of data with professional development and learning progress. The research-based instrument was reviewed and piloted. The researcher suggested four areas to target that align with professional learning: the level of expertise in use of data, culture present among teachers to encourage the use of data,

development of teams that have common goals and mode of communication or language, and time to enable data collection and recording systems.

Analysis Informing the Project from Literature Review

The findings of this study as reported in Section 2 are aligned with the results from the literature review on professional development. The teachers participating in this study indicated that even though workshops were an acceptable vehicle for professional development, they also indicated that they wanted other components to enhance the professional learning and provide for learning opportunities and support. In the study findings, participants mentioned coaches and mentors, embedded support and external experts, opportunities for observations and feedback, and collaboration through small professional learning groups. It follows that because the literature was focused on professional development as a genre, the specific content focus of the professional learning would not have been encountered. On the other hand, the literature review including best practices yielded studies recommending most of the professional development components that emerged from the study findings. That served to reinforce the input received from the teacher participants in the study and direct the components that should be included in the plan for the professional development project.

Drawn from the study findings reported in Section 2, a message advocating for more than one-shot workshops was clear. The literature review aimed at best practices in professional development revealed studies which suggested progression in steps and scaffolding (Chen et al., 2015; Festas et al., 2015; Hill et al., 2013; Kleickmann et al., 2016; Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). Even though the findings

did not specify scaffolding, there was a clear call for more than one session and for mechanisms built in to the plan to support and enhance learning on a continuous basis. In the study findings, the specific elements suggested to accomplish this were coaching and mentoring, collaboration and learning groups, and observations.

The literature review also contained studies showing the effectiveness of these elements in designing professional development and supported building these aspects into the professional development project. Collaboration and professional learning communities were found to allow for opportunities for practice, observations, and support in several studies (Hadar & Brody, 2013; Nolan & Molla, 2017; Stewart, 2014; Suc et al., 2017; Vangrieken et al., 2017). The work of Hung and Yeh (2013) and Vaughan and Henderson (2016) included evidence of the value of both internal and external collaboration. The project findings suggest that combination as well in looking for internal collaboration and professional learning communities as well as for connection with an outside expert.

Coaching and mentoring were found in the study findings as a means to extend and support the professional learning with feedback for observations and practice, as well as access to expertise. Drawn from the literature review, the best practices for professional development also included coaching and mentoring with evidence of effectiveness to enhance and provide continuous learning opportunities and support for professional learners in the development design. The findings of the longitudinal study by Snyder et al. (2018) supported the need for embedded coaches to enhance any learning through workshops. This was echoed in the work of Kretlow and Bartholomew (2010) in

a review of 13 studies over 20 years and in the study by Mangope and Mukhopadhyay (2015). The effectiveness of embedded coaches and mentors was found in several studies (Campbell, 2017; Grima-Farrell, 2015; Koster et al., 2017; Lane et al., 2015; Lang et al., 2017; Mitchell et al, 2017; Wyatt et al., 2017). Peer coaches were also found to have a role in enhancing the success of professional learning (Alsaleh et al., 2017; Balta et al., 2017; Mitchell et al., 2017; Tenenberg, 2016; Wyatt et al., 2017). The literature review for professional development revealed the importance of coaching and mentoring for any professional learning plan, and reiterated the message from the study findings.

Areas surfacing from the literature review for professional development that were not explicit in the study findings were the use of technology and assessment and evaluation of professional development. The use of technology was treated in the literature review as a separate area; however, the studies showed evidence of uses that aligned with the findings in offering the means for peer collaboration and group interactions through on-line connections or networking (Ab Rashid, 2018; Asensio-Pérez et al., 2017; Clench & King, 2015; Matuk et al., 2016). Evidence of success was found in the literature review in the use of videos and podcasts for observations or modeling (Gonzalez et al., 2016; Kennedy et al., 2017). Assessment and evaluation is an essential part of any plan for professional development and is addressed in the project; however, the area was not included in the research questions and therefore was not part of the study findings.

Other areas found in the literature review on professional development that would be assumed although not explicit in the findings are: organizational change in relation to

professional development, designing professional development for continuous improvement, and the relationship of professional development to improved student achievement results. Considerations for organizational change and continuous improvement guided the professional development project in planning the design to extend beyond workshops and sessions and include embedded coaches and mentors, along with small group learning communities and collaboration. Student achievement was at the heart of the problem being addressed by the project study; however, as the studies in the literature review reveal, the results in student achievement is a long-term measure that would go beyond the immediate assessment of this project (Jacob et al., 2017; Meissel et al., 2016). Continuous improvement and organizational change similarly need time and a systematic ongoing process to assess and are often not conclusive (Adoniou, 2013; Deschesnes et al., 2015; Gracia-Perez & Gil-Lacruz, 2018; Hung & Yeh, 2013; Jones-Schenk, 2017; Reeves & Drew, 2013). Although these two elements are part of the ultimate goals for the project, the measurement is also outside of the scope of this project. On the other hand, the project might jumpstart a process toward system supported and encouraged continuous improvement, ultimately addressing the problem of the gap in the performance of students with disabilities on the state standard measures.

Project Description

Based on the findings from the study as well as the literature review on professional development, the project is a plan for professional development directed toward helping teachers to be more effective in an inclusive classroom. Guidance from the study as well as the literature review on professional development suggests that the

most effective plan for professional learning should be designed to take place over a period of time as compared with a single workshop or course. The other key recommendation is that the design should include opportunities for application of the learning with observations and embedded mentors or coaches. Based on this guidance, the overall design for the infusion of the professional learning initiative at the school site spans 18 months. The first eight months of the plan provides for activities for putting components in place in a planning phase, beginning mid-year in the first school year. The actual implementation of professional learning activities and follow-up are planned over the remaining ten months spanning the subsequent school year. The components of the project plan include the formation of grade level cohort professional learning communities and assignment of embedded coaches to each cohort, with access to an external inclusion consultant. Action elements include workshop sessions with time in between for application and collaboration in cohorts, teacher observations by peers and coach with written feedback, formative self-assessment, self-reflection on professional learning, and action planning for future professional learning.

Elements of the plan include a two-day kickoff workshop session with one follow-up session scheduled to allow enough time for observations and practice for carryover to their respective classrooms. Built into the plan are at least four embedded coaches. Part of the plan not only involves embedded coaching, observations, and feedback, but the plan includes connecting the coaches with an outside consultant from the local university who specializes in inclusion education. The perspective for the consultant will be in supporting these coaches to help the teachers and school leaders to

be successful in this inclusion education professional learning initiative. Mentoring and peer coaching will be encouraged as other embedded elements, along with the requirement for at least two peer observations per teacher participant of another teacher and two observations by another peer teacher of their own classrooms. The teacher participants will be grouped in grade level cohorts and small learning communities will become the vehicle for observations and peer feedback, as well as allowing for the option for online collaboration and support. (See Appendix A for project large-group session agenda, supporting tools and worksheets, additional resources list, self-reflection tool, and formative evaluation tool.)

Resources

The resources needed include a workshop leader for the large group sessions, including the two-day kickoff workshop and a follow-up guided work session. Four embedded coaches will need to be selected based on leadership abilities and experience and level of success and comfort with inclusion in their own classrooms. Each of these coaches will work with two grade-level teacher cohorts of five or six members each, meeting with each cohort at least once a month, doing individual observations of cohort teachers, and meeting as a coaching team An external inclusion education consultant will need to act as a resource for questions and coaching challenges. The school will serve as the facility for the trainings and the source for internal coaching and support. Administration support will be needed in hiring substitutes to allow coaches to offer support and observe, and for teachers to do at least two peer observations and for them to have at least two peer observations in their own classrooms. Administration will also

need to agree to and support the formation of cohort learning communities with approximately five to six teachers in each, and allowing and enabling online networking vehicles for these groups such as Google Docs or internal chat options.

Existing Supports

The administration is already supportive of the idea of this professional development project, so administrators serve as an existing support at the outset. I have already established a contact with a consultant who specializes in inclusion education at the local university, so I could pursue the contract described. The school site also is a support as the site for the professional development plan with developing embedded coaches as supports, as well as the facilities for group sessions, professional community cohorts, and technological connectivity to allow for on-line professional connections.

Potential Barriers

There is the possibility that the administration would not require this training as a whole school. If that were the case, the lack of full-school participation among teachers would interfere with the growth of group learning cohorts across the school and with building a culture of learning and discovery during the process. If the participation in this professional development initiative is made voluntary, it could sabotage the whole perspective of organizational change, continuous improvement, and ultimately the effect on improving student achievement. Therefore, a systemic whole-school approach would not be possible. If the participation is limited, then these factors are going to be less likely as a school and even more difficult to measure in time.

Potential Solutions to Barriers

An obvious solution to the potential barrier of not having all teachers participate in the professional learning plan is to obtain buy-in upfront with the administrators. It would be essential for the administrators to envision the benefits of the professional learning initiative from a systems perspective, from the viewpoint of developing a culture for mutual learning and support among teachers to improve effectiveness in teaching students with diverse learning needs in the inclusive classroom. Ultimately, the administrators must be clear that the goal is to improve the performance of all students, including those identified for special education, thus addressing the problem that prompted developing this study and resulting professional development project.

Proposal for Implementation and Timeline

The proposed plan will be presented to the local site school administration by January 2019. I will have approached the external inclusive education consultant with the potential contract for training and embedded coach support and mentoring prior to the presentation of the proposed plan. Upon approval of the project plan, the planner and the school principal will contract with the external consultant by the end of January 2019. The timetable for implementation will include selection of coaches by April 2019, and two meetings of coaches by the end of the 2018-2019 school year, including one meeting with the external consultant.

In September to mid October 2019, teachers will be assigned to grade-level based teacher cohorts of approximately five members, ideally self-selected as groups, with the assignment guided and approved by the principals. Then the principal will assign each

embedded coach to work with two specific teacher cohorts. An initial two-day large-group workshop and training session will be scheduled to happen by early November 2019. A follow-up large-group work session will be planned to be held by the end of March 2020.

Allotting 5 months between training sessions will allow time for observations, professional learning cohort interactions, and practice. The March 2020 work session will also include time to action plan professional learning activities or collaboration for the school year going forward. This plan will be at the cohort-level as well as with the large group to allow for the development of next steps for continuous improvement opportunities, guided and supported by the embedded coaches. Coaches, teachers, and principals will hold a project reflection and evaluation meeting in June 2020. In addition, coaches, principals, and the project planner will meet at the end of the school year to reflect on the plan as a whole and discuss any action plan needed going forward. (See agenda and supporting documents for the project in Appendix A; see Figure 1 for the timeline for the professional development plan.)

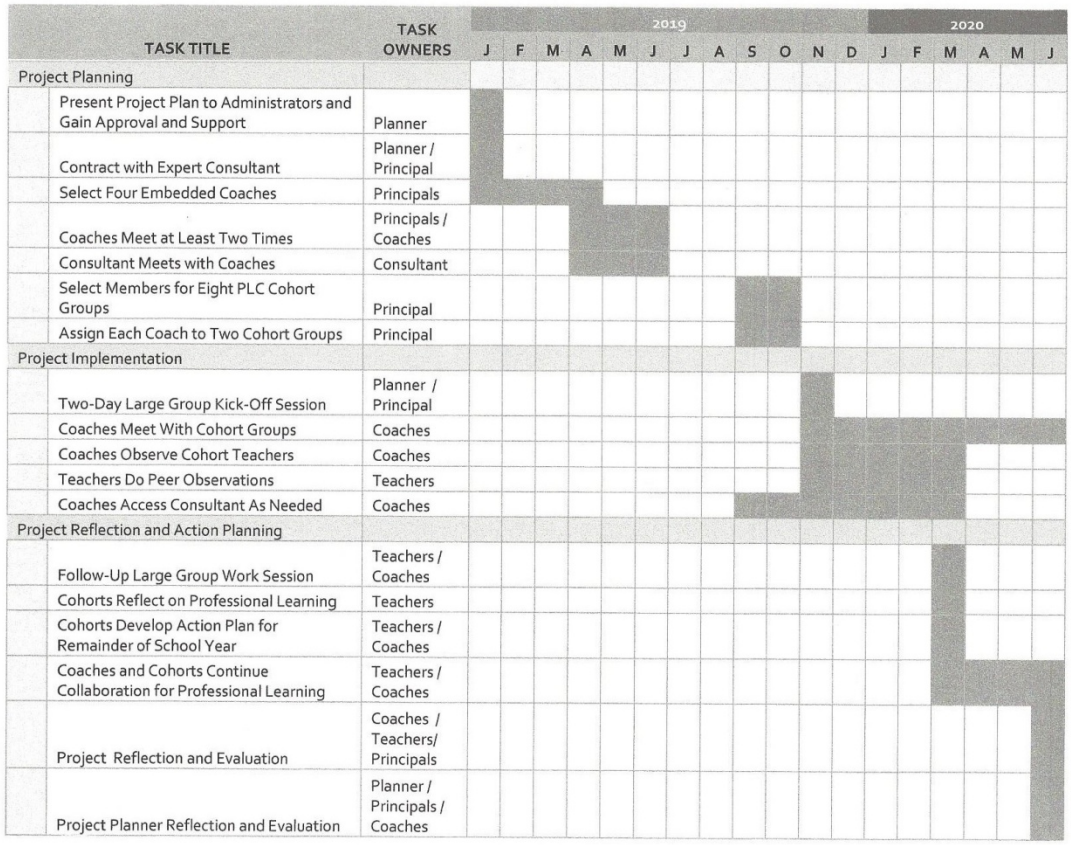

Figure 1. **Timeline for Professional Development Plan.**

Roles and Responsibilities

I have developed the professional development plan and will present it to the school administration and be available for follow-up. The school administration has the responsibility of supporting a leader for the professional learning plan, presenting and supporting the plan, selecting and collaborating with the embedded coaches, scheduling and hiring substitutes to enable teachers to complete observations of each other and function and interact in cohorts, and supporting and encouraging the teachers as they progress through the professional learning processes. Coaches will be responsible for

checking in with teachers. Each embedded coach will be assigned to work with two cohorts or professional learning groups, with approximately five to six teachers in each cohort. The coach and teacher check-ins will include observations and feedback, and participation in cohort meetings. In addition, the coaches will check in with the external inclusion education consultant twice in the early formative planning stages, and then having access to asking questions as a coaching group as needed. The coaches will consult with the external consultant and the administrators about any shifts needed and formative feedback and assessment of cohort members. The participating teachers have the responsibility to engage in cohort meetings, to engage in online interactions (if elected as a collaboration intervention), to do two observations of other teachers and give feedback, allow assigned cohort coach and two teachers to observe them and debrief on feedback from these observations, doing formative self-assessment and adjusting practices as indicated during the professional learning process. See Table 5 for an overview of project member roles and responsibilities.

Table 5

Project Member Roles and Responsibilities

Role	Number	Responsibilities
Planner	1	Develop the overall professional development plan; present plan to administration; arrange for contract with local university consultant expert on inclusion education; be available to guide the planning phase; advise on selection and role of coaches and formation of teacher grade-level cohorts for professional learning community activities throughout the professional learning project phases.
School Administrators	2	Support the planning and implementation of the full professional learning project in all its phases; choose and support a leader for the group workshop and work session; select, support, and collaborate with four embedded inclusion coaches; present and support the plan through all its phases with the coaches and participant teachers; help and support the formation of professional learning community cohorts for the implementation of the plan; support and encourage cohort teachers as they go through the professional learning plan and complete peer observations of other teachers related to inclusive teaching practices; allow time in the schedule for professional learning community meetings of teacher cohorts, peer observations, coach observations and meetings, and for large group kick-off workshop and follow-up work session; attend and participate in these large group sessions.
Coaches	4	Coaches will be responsible for meeting to plan support for instructional practices before the start of the teacher learning phase, embedded as support for cohort teacher member learning; check ins as needed and observations and feedback for two assigned teacher cohorts of five to six members each; participation at least monthly in teacher cohort meetings throughout the year long professional learning project; coaches will check in twice with external inclusion education consultant during planning phase, and then as needed as a coaching team; coaches will actively participate and support activities during large group kick-off workshop and follow-up large group work session; coaches will work with administrators for final project reflection and evaluation.
External Consultant	1	External university consultant expert in inclusion education will be contracted to meeting with the team of embedded coaches at least twice during the planning phase, and then be available as needed for the coaching team during the year long project implementation phase.

(*table continues*)

Role	Number	Responsibilities
Teacher Participants	45	Work with administrators to group into professional learning cohorts by grade-level with five or six members per cohort – with a total of 8 cohorts for the professional learning community activities during the project; actively infuse and try inclusion instructional practices throughout the project, with workshops and embedded coach support; meet as a professional learning community cohort at least monthly; complete at least two peer observations and give feedback, and interact with peers and coach for observation feedback of themselves; actively engage in formative self-reflection during the professional learning process.
Workshop Leader	1	Large group workshop leader will lead the two-day large group kick-off workshop and the follow-up large group work session. The sessions are planned, so this is a facilitation role.

Project Evaluation Plan

Type of Evaluation

The type of evaluation that would align best with this professional development project would be formative evaluation. Because the professional development plan is for a process involving self-reflection, observations, and embedded coaching, summative evaluation would not align with the transformative and socio-cultural grounding. Summative evaluation would assume that all participants would have the same input and targets.

Justification for Type of Evaluation

Designating formative evaluation allows for recognition of the dynamic nature of the professional learning process, the learning in stages and with feedback needed, and the self-assessment and reflection needed as the learning plan progresses. Because of the many variables that will be at play in any professional learning initiative and the various learning stages that individual participants and cohorts will be at during the implementation of the plan and beyond, summative evaluation is not appropriate. There is

not a finite standard or body of knowledge to be learned; not only is the nature of what is being learned dynamic and affected by many variables, each teacher as professional learner is starting with different skills and background and learns differently. Similarly, selecting goal-based evaluation and outcomes-based evaluation would not recognize these dynamics and the transformative stages each teacher learner must experience. Even though the ultimate goal of the project is to improve professional practice in teaching in inclusion classrooms in order to address the need to improve student performance, student achievement cannot be evaluated with a one-to-one correspondence based on teaching practice alone. The outcomes would not be clearly delineated. The only goals that could be measured would be for completion of this plan. That would not be a remarkable evaluation; going forward what would be more interesting is whether the learning practices and collaboration were to continue. There are many variables that would affect that as well, and are outside of the purview of the project resulting from this study.

Overall Evaluation Goals

The formative evaluations have two goals. Directed toward the learning sessions, the first goal is to monitor and get feedback on individual and cohort progress and on the needs going forward in the professional learning process. With the dynamic and transformative nature of the plan, the second goal for formative evaluation is to allow for self-reflection for the individual and cohort groupings as a whole directed toward progress and learning.

Key Stakeholders

Key stakeholders for this project include teachers, coaches, and administrators. From the perspective of the project, the teachers would receive the central and direct benefit for the professional learning plan. Coaches would benefit from two perspectives. Coaches will have the opportunity to interact with each other as a learning group with the other coaches and with the consulting inclusion expert. In addition, coaches will experience dynamic learning in observing teachers in their assigned cohorts and processing the movement toward inclusion learning best practices, as well as having an opportunity to observe the effect of transformations in teaching practices and the effects on classroom community. The project offers an opportunity for administrators in the school to benefit in strengthening inclusion practices among teachers and in building the school capacity by having a team of embedded inclusion coaches, ultimately with the promise of increasing student performance and improving school culture toward embracing inclusion.

Project Implications

Social Change Implications

Because the project is aimed at helping teachers of students with diverse learning needs in inclusive general education classrooms, at the very least, the possible social change implications would include teachers being more welcoming of students with disabilities into their classrooms. If the teachers feel better equipped to effectively teach all students including those with disabilities, the teacher can guide the classroom community to welcome and support each other in their differences and in their

achievements. In effect, the individual classroom cultures could change to be more socially welcoming, and eventually this could spill over into social change in the culture of the school as a whole.

Importance of Project

The project was the result of a study to address the needs of teachers to be effective in teaching in the inclusive general education classroom with students with a wide range of needs. At the outset, developed as a result of research and an on-site case study of teachers' professional learning needs for the inclusive classroom, the professional development project was aimed at strengthening teaching skills toward that end. It is not unimaginable that the learning and the process might go beyond and build a collaborative learning culture among the teachers, as well as a more welcoming and supportive culture for all students.

Section 4: Reflections and Conclusions

Project Strengths and Limitations

I designed the project using the study findings and my literature review on professional development. A project strength, I believe, is that it addresses the need for professional learning opportunities as perceived by the teachers in the local school. Furthermore, the project plan incorporates guidance from both the findings and from the professional development literature on effective practice (Kretlow & Bartholomew, 2010; Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). For the most part, the input from the participants aligned with the results of the literature review, which strengthened the project design. Both components and process were based on this combined guidance.

The problem noted in Section 1 was the need to equip teachers to be more effective in teaching students with diverse learning needs in the inclusive general classroom. I am confident that the professional development project that I created contains the elements needed to foster teachers' progress in professional learning targeting inclusive education. The foundational perspectives established from the theoretical base were evident. Vygotsky's (1978) sociocultural theory and Mezirow's transformational learning theory (Mezirow, 2000; Mezirow, 2006) provided the cornerstone for the project (see, also, de Valenzuela, 2007). Organizational change literature closely complemented the theoretical basis. The literature suggests that the most successful approach in professional development is to scaffold learning in stages (Antoniou, 2013; Campbell, 2017; Chen et al., 2015; Festas et al., 2015; Florian & Spratt, 2013; Javed, 2017; Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). Without the

recognition of elements of scaffolded learning and complementary organizational shift, the professional development plan would be limited to workshops alone and not allow for continuous professional learning within a context of organizational change.

Other results in the professional development literature review informed the project as well. The literature included studies that revealed the importance of encouraging learners to collaborate and build a learning culture (Balta et al., 2017; Nolan & Molla, 2017; Stewart, 2014; Vangrieken et al., 2017). Other studies revealed that professional development is strengthened by the use of embedded coaches and mentors to provide ongoing feedback and to act as resources during the professional learning process (Koster et al., 2017; Mangope & Mukhopadhyay, 2015; Mitchell et al., 2017; Snyder et al., 2018). The theoretical framework for the study suggested this approach as well.

I incorporated transformative learning theory as put forth by Mezirow (Kitchenham, 2008; Mezirow, 2000) in the project design by allowing for learning, practice, and feedback in between work sessions and for mentors and coaches to be part of the plan. Vygotsky's (1978) sociocultural theory and zone of proximal development (see, also, de Valenzuela, 2007) also was evident in the project's emphasis on the guidance of mentors and the social context for the teachers' learning. Based on the conceptual framework from the theories of both Mezirow and Vygotsky, the plan for the professional development project incorporated a grounded plan going beyond workshops. I designed the project with a focus on the transformative learning of individuals and the social learning of the collective group through collaborative professional learning communities and coaching and peer mentoring.

The limitations of the project were rooted in the assumption that participants would be invested in the effort and that cohorts and coaches would work effectively together. In order to embark on an 18-month professional learning project, all must be engaged and understand the value in the effort. Ultimately, while the project is encouraged and supported by the administrators, buy-in by participants cannot be initiated or fueled by the administrators. The teachers must be motivated either intrinsically or by group effort and enthusiasm. The support of an expert external consultant helps in this regard. The other potential limitation is the relative strength of the embedded coaches. There is no predictable control for that element.

Recommendations for Alternative Approaches

The problem targeted in this study was the preparation of teachers at this local school to be effective in working successfully with all students in the inclusive general education classrooms. The impetus for the project was the performance of students, especially the subset of students with disabilities, in making progress toward state standards benchmarks. Even though teachers indicated the need for more professional learning and support toward targeting strategies for inclusive instruction, there might be other means of addressing their needs in being more effective in the inclusive classroom. As illustrated in the literature review on inclusion education and on professional development and its organizational context (see Antoniou, 2013; Deschesnes et al., 2015; Hung & Yeh, 2013; Jones-Schenk, 2017; Spratt & Florian, 2015; Waitoller & Artiles, 2013), an important aspect for the success of the professional development plans is attention to the organizational context or culture in this school.

An alternative definition of the problem might lie in part on the context for teaching, and how teachers are supported and helped to envision changes in the classroom culture and the school culture in the support for inclusion. Beyond the professional learning efforts of the teachers, perhaps the problem of not feeling prepared might have something to do with how inclusion fits in the overall context and culture of the school and the expectations of teachers. If the teachers view inclusion as something foreign and new, then they are likely not to feel prepared to teach in an inclusive setting. In contrast, if inclusion is treated as the norm, and teachers are allowed the time to shift to the changes demanded, then their specific strategies become part of normal teaching approaches and not something that they are expected to do differently.

Conducting the literature reviews and devising the theoretical basis provided me with a more enlightened view of the problem and the possible solutions. Initially, I had approached the problem as a need emerging from national and state policies toward inclusion of special and diverse learners in general education classrooms and the resulting need to prepare teachers for this change in practice. The problem might be better addressed if considered more broadly. If viewed from the perspective of a paradigm shift in U.S. schools and in this local school, and similar to the shift emerging internationally, then the needs extend beyond a simple skill-based workshop or course for professional development for these teachers.

The problem goes beyond the preparation of the teachers from a strategies perspective and suggests a systems and organizational culture shift that needs to be in place to complement and support the growth of the teachers in this regard. Therefore, the

alternative solution to the problem as viewed in this light would require attention to organizational context, culture, and change rather than the narrow view of developing teaching strategies for inclusive classrooms. Teaching does not happen in a vacuum. Teachers are subject to the school organizational context and the dynamics of its culture (see Adoniou, 2013; Antoniou, 2013; Barrett et al., 2015; Deschesnes et al., 2015; Hung & Yeh, 2013; Jones-Schenk, 2017; Reeves & Drew, 2013; see, also, Vygotsky, 1997). The alternative approach to the problem would be broader than simply addressing discreet instructional strategies, and consider the organizational culture as a base for both teacher and student learning needed in this shift. The broader plan must include the perspective of the school context for organizational change from a sociocultural perspective.

Scholarship, Project Development and Evaluation, and Leadership and Change

Knowledge Acquisition About Processes

Guidance from the findings of the study, both literature reviews, and the conceptual base informed the project as foundational stages for me in the development of the project. Without those stages in the process, the project might have looked very different. Based on the findings from the case study, professional development was the logical choice for the project genre. Including the study findings and the review of the literature on professional development in the process helped define the elements of the project. The study findings reported in Section 2 revealed that teachers wanted more than workshops; they wanted embedded support in the mode of coaches and mentors, external

experts as resources, practice and feedback, observations, and collaboration in small professional learning communities.

Based on findings from studies in the literature review on professional development reported in Section 3, the professional development practices indicated similar components as elements to strengthen professional learning systems. The review included studies that inform best practice pointing toward the need for more than workshops (see Hill et al., 2013; Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). Other components surfaced from the professional development literature review in Section 3. Additional findings related to effective professional development included the importance of learning in stages allowing for practice (see Chen et al., 2015; Hill et al., 2013; Mangope & Mukhopadhyay, 2015; Snyder et al., 2018). Further, the literature review revealed the importance of developing professional learning communities and collaboration for sources of continuous learning and support (see Hadar & Brody , 2013; Nolan & Molla, 2017; Stewart, 2014; Vangrieken et al, 2017; Vaughan & Henderson, 2016). Related to the direct roles of the professional learners, these themes emerged from the literature review as well as from the study findings.

Other support factors were revealed for the success of the professional learning plan both in the study and in the literature review. Building in mechanisms for continuous improvement, including embedded coaching and mentoring, also surfaced as significant in a plan for effective professional development (see Kretlow & Bartholomew, 2010; Mangope & Mukhopadhyay, 2015; Snyder et al. , 2018; Wyatt et al., 2017). Some findings from the literature review went beyond the elements needed for effective

professional learning to suggesting the role of effective professional development as part of organizational change and cultural shift (see Deschesnes et al., 2015; Gracia-Perez & Gil-Lacruz, 2018; Jones-Schenk, 2017). The studies in the literature review suggested the importance of professional development in the context of any organizational paradigm shift, in this case toward embracing and succeeding with inclusion.

Therefore, based on the research findings from my study as well as the literature review on professional development, I decided to expand the study's professional development project from a simple series of work sessions to a professional development design that would allow for these elements. The project would take longer than a school year from planning through implementation.

The only part of the plan that was not addressed directly, but might be anticipated to emerge as part of the process, was the systems perspective for organizational change and its influence on school culture. As suggested from studies in the literature review on professional development, shared professional learning among the members of a school organization and collaboration and support in the process has a larger influence than the narrow view of the learning itself (see Adoniou, 2013; Deschesnes et al., 2015; Gracia-Perez & Gil-Lacruz, 2018; Hung & Yeh, 2013; Jones-Schenk, 2017; Reeves & Drew, 2013). By building in the elements discussed the professional learning might have the prospect of a larger perspective for eventual organizational change; however, that is beyond the scope of this project..

The earlier parts of the process, the literature review on inclusion and theoretical framework completed and reported in Section 1, ultimately proved to align with the study

findings and with the final design of the project. Mezirow's theory of transformational learning aligned with the project design in that the plan allowed for the teacher learners to learn at their pace and change and adjust over stages with the help of coaches and the infusion of an expert consulting with the coaches and with them (Kitchenham, 2008; Mezirow , 2000; Mezirow, 2006). Similarly, Vygotsky's theory of zone of proximal development suggested a similar approach for ultimate learning (de Valenzuela, 2007; Vygotsky, 1978). The sociocultural theory of Vygotsky formed a backdrop of the intent of the professional development initiative and the ultimate possibility of classroom and school cultural shift as a direct or indirect outcome.

And finally, the process also harkened back to the literature review on inclusion reported in Section 1, in reminding me that this movement toward inclusion is directed by policy in the United States and in several countries internationally. The studies in the literature review suggested that even though the practice of inclusion is mandated by policy in the United States, the learning curve in schools is still steep. It is a paradigm shift, and in the local school that is the site for the study, the practice is enforced; however, as in many studies in the literature review, the teachers are looking for more support and guidance in being successful in working all learners in the inclusive general classroom. I reflected on this literature in designing the project sensitive to where teachers might be in the shift toward embracing inclusion and all that it brings to changing the dynamics and needs in their classrooms.

Personal Learning

Although I had done literature reviews in previous research and projects required as part of my doctoral journey, and I had done research to inform my practice as a special educator and administrator, I had never done two separate literature reviews directed toward one final project. In addition, it had been years since my other graduate degrees when I had conducted action research. For this project study, I completed two literature reviews. With the first literature review focused on inclusion and teaching in the inclusive classroom, I had a solid base entering my local project research. With the other literature review targeting professional development practices, I expanded my research foundation for the resulting project plan for the school. Beyond the two literature reviews, my on-site research informed the ultimate development of a project. This process was truly a learning experience for me professionally. I have never felt so grounded in developing a professional development project, and felt so reassured that all of the design elements fit into a larger framework for professional learning for these teachers.

As I finalized the plan for my project, it had changed and expanded to more than a year's process for a professional learning design instead of a three-day presentation and group work session and then a goodbye. At first, I was not really aware of the alignment of the framework for the final project design with all of the research, including the two literature reviews, the theoretical framework, and the study findings from the local research. As I reflected on the final project and how it had grown and changed from my initial thoughts, I realized that research really does inform practice if you listen to the messages of the studies done by others and by yourself.

Professional development and coaching, evaluation of teachers and other special education personnel, and collaboration in working with and informing administration colleagues, are at the heart of my professional roles. The value of research to ground practice is essential in informing any of these responsibilities. I cannot be in the position of leading change unless I am grounded in whatever research is needed. So the sequence going forward as much as possible will be research, then plan and do, rather than just plan and do, or sometimes just do.

Reflection on Importance of the Work

Even though this work was targeted on a small scale, a case study of teacher needs for the inclusive classroom in a local school, the lesson from the research and aligned development of a project was important. As a researcher, I can now feel confident that the project I have designed not only answers the concerns and advice drawn from the local study findings, but the resulting project is grounded in research into best practices for professional development, research into inclusive education, and a theoretical framework based on the work of two major learning theorists with messages for adult learning. I learned the value of the research process as a base and framework for planning. In addition, I learned that professional learners have a very sound concept of what would work for them in learning if you listen. If you put what they say into a larger context of needs for ultimate learning rather than for short-term activities or workshops, the professional learning path from the perspectives of the learners is clear.

Implications, Applications, and Directions for Future Research

Implications for Social Change

As the teachers in this school become stronger in teaching all students in their inclusive classrooms, implications could go beyond the teachers' skills and to developing a classroom and school culture that embraces inclusion. Social change is possible if teachers become more comfortable with managing the classroom community and the diverse student needs that accompany inclusion. Their classroom communities of students could become more accepting of differences and celebrate achievements of everyone. Potentially, that could affect the culture of the school overall.

Implications for Methodology

If I were to repeat this research, I would stay with the qualitative approach; however, I would use more face-to-face methods for my case study. Instead of the survey and e-mail interview to gather the input on professional learning needs for inclusion, I would elect to do individual or small group interviews, focus groups, and observations in the classrooms. Upon reflection, and given my research, this would have yielded a much richer study result to inform my project. Even though the components of the professional development plan would likely be the same because the design was informed by literature reviews of best practices, the components would be more richly informed in the stages of the plan instead of relying mostly on input of participants as they progress through the learning. The combination might prove more effective.

Implications for Future Research

In the future, the research that would be most valuable on the question of preparation of teachers for inclusive classrooms might be an expansion of the research to other schools. The methodology as discussed should have more opportunities for face-to-face interactions with the teachers in each school. In addition, the research should include the administrators because the context and the culture of the school as an organization supporting inclusion are essential to the success of any professional learning targeting help for teachers to be effective in teaching in the inclusive classroom and building inclusive and welcoming classroom communities. Socio-emotional learning can be an element for future research for both teachers and students as related to contextual changes stemming from inclusion. Finally, future research should more broadly address the organizational change elements needed for the teachers to be successful in adapting and helping students be successful in their inclusive classrooms, and recognize that professional development does not happen isolated from its organizational school context.

Conclusion

Inclusion in schools in the United States is mandated, yet teachers and systems might not be fully ready for this shift. The demands resulting from this shift to inclusive education are complex, and the professional development plan for teachers to help equip them for the shift to inclusive education must be dynamic and multi-faceted as well. Ultimately, the professional learning needs must recognize the teacher as learner, and the stages and change each teacher needs to progress through to build readiness level for the

inclusive classroom. In addition, the school as the organizational context must change to support the most effective professional development for inclusion by providing support and encouragement for the teachers to allow them to welcome the inclusive approach.

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Appendix A: Project AGENDA – TWO-DAY KICKOFF SESSION -- DAY 1

Time	Activity	Notes
8:00 A - 8:30 A	Check-In and Coffee	Participants are free to choose table groups at this point. Participants were instructed to bring their laptop computers.
8:30 A - 8:45 A	Welcome; Overview	Briefly review agenda and goals
8:45 A - 9:00 A	Write formative self-assessment and personal learning goal for two-day session; discussion and goal sharing at tables	Participants were assigned to complete Formative Self-Assessment Tool and Self-Reflection and Goal-Setting Tool worksheet in advance and bring with them
9:00 A - 9:20 A	INCLUSION: Small group discussion: elements and essential factors for successful inclusive classroom	Groups are instructed to select a reporter to report to large group; group lists elements and factors to report out
9:20 A - 9:35 A	Large group: each group sharing elements, giving those not mentioned before	
9:35 A –9:50 A	Video: *Inclusive Learning: Everyone's In*	Video: https://www.youtube.com/watch?v=aTXtT05782Y&t=48s
9:50 A - 10:15 A	Small group discussion: what was similar from list of elements and essential factors the group had developed and what was different?	
10:15 A-10:30 A	BREAK	
10:30 A-10:45 A	Video: *Inclusion Practices in Your Classroom*	Video: https://www.youtube.com/watch?v=00sRVmZa_zg
10:45 A-11:10 A	Small group discussion: What practices were listed? What would you add or change and why? Was there anything different from what you would do for every classroom?	Groups are instructed to select a reporter and prepare to report out to large group on their results
11:10 A-11:45 A	Large group sharing and discussion: discuss practices and discussions about what was same or different, and how practices compared to classroom practices for every classroom?	Each group reports in succession giving those practices that had not been mentioned, and summarizes any extended discussions the small group might have had regarding practices
11:45 A-12:30 P	LUNCH – Take some time to reflect and make individual notes about any practices you might change or incorporate into your classroom as a result of morning discussions and videos.	On site – Bring Your Own.
12:30 P- 1:00 P	Participants move to tables assigned for professional learning cohort groups. Coaches will circulate with assigned cohorts. Cohort members will share individual reflections about practices that work or might work and possible changes as a result of inclusion ideas presented and discussed in the AM session.	Cohorts of five or six teachers were previously assigned by grade level and team for the professional learning community plan for the year. Each of the four coaches was assigned to work with two cohort groups.
1:00 P – 1:45 P	DIFFERENTIATION: Video: C. A. Tomlinson (2018) *Differentiation in Action: A Quick Classroom Tour*	Video: https://vimeo.com/265404191 Participants will be instructed to take notes on component areas and strategies/considerations

1:45 P – 2:10 P	Cohort discussion: What were the differentiation considerations and strategies shown? What do you already do? Would you add any? Why? What is different from what you would do for every classroom, not just inclusive classroom?	Create a Google Doc that is shared with all participants and coaches, and is projected on a screen in the front of the room. The input from each cohort will be shared as a collective list of differentiation and inclusion elements and strategies. Each cohort group will select a reporter to report out to the large group on discussion outcomes and add discussion points to the shared Google Doc.
2:10 P – 2:20 P	BREAK	
2:20 P – 2:45 P	Large group discussion – areas of consideration and differentiation strategies. Reporters for each cohort share their groups' discussion outcomes with the large group and share on the Google Doc projected for all to see.	Discussion should be led to touch on the considerations related to classroom and learning environment, instructional planning and strategies, and allowing different ways to demonstrate learning. Discussion should also include building connections and understanding of student interests and strengths, learning styles, choices, ways to tailor individual learning spaces and preferred styles, use of formative assessment to inform instruction, and collaboration.
2:45 P - 3:00 P	UNIVERSAL DESIGN FOR LEARNING (UDL) – eliminating barriers. Video: CAST -- *UDL at a Glance*	Introduce UDL from universal design perspective from architecture. Video: CAST -- https://www.youtube.com/watch?v=bDvKnY0g6e4
3:00 P – 3:30 P	Cohort small group discussion – were there any different strategies or considerations given that would expand your perspectives on differentiation? If so, what were they and how can you incorporate these into your classroom?	Add any new perspectives or strategies into the Google Doc.
3:30 P – 3:45 P	Participants take time for self-reflection on whether there were any new ideas that they have as take-ways from the day; brief small group sharing	Participants use Self-Reflection and Goal-Setting Tool provided prior to Day 1
3:45 P – 4:00 P	Plans for next day PD session will be shared	Next day plan shared will include time to develop and share a UDL matrix for a student and delve into classroom management

AGENDA – TWO-DAY KICK-OFF -- DAY 2

Time	Activity	Notes
8:00 A - 8:15 A	Check-In and Coffee	Participants are to go to the eight cohort group tables assigned by number in the room
8:15 A - 8:30 A	Overview of day	Briefly review agenda and goals for the day; participants reflect and set personal learning goals for the day using the Self-Reflection and Goal-Setting Tool they have completed thus far
8:30 A - 9:00 A	PLANNING FOR DIFFERENTIATION and UDL -- Cohort Group Activity: Create differentiation/UDL design for a sample student learning profile	Participants will use the Differentiation/UDL Matrix given to them and uploaded as a Google Doc shared among cohort members. There will be three student sample profiles with one assigned to each cohort. A reporter will be selected by each group to report out to the large group. When sharing, groups can compare how they addressed the needs for the students with two or three groups creating the plan for each student profile.
9:00 A - 9:30 A	Large group: each group sharing plan for their assigned student profile, giving those aspects of the plan not mentioned before	Cohort groups are instructed to select a reporter to report to large group using the Google Doc matrix
9:30 A – 10:00 A	CLASSROOM MANAGEMENT -- Cohort group work: individually read article and discuss each strategy listed for classroom management. For each strategy, individually decide whether you agree, disagree, think it needs revision and how, whether the strategy aligns with differentiation or UDL. Discuss as a group.	Article: 19 Big and Small Classroom Management Strategies (Finley, 2017) https://www.edutopia.org/blog/big-and-small-classroom-management-strategies-todd-finley Each cohort group should select a reporter to report out to the large group.
10:00 A- 10:15 A	BREAK	
10:15 A -10:45 A	Large group discussion: what was different in the list? How did any align or not align with best practices for differentiation and UDL for the inclusive classroom? How successful did the group think these strategies would be for behavior management?	Each cohort reporter reports on what is different about their cohort's discussion. Large group decides whether there are any take-aways that relate to inclusion elements and differentiation. Any thoughts about best practices for behavior management?
10:45 A-11:30A	BEHAVIOR MANAGEMENT – Cohort small groups: Using perspective of differentiation and UDL, plan for the student in the scenario assigned to your group. Select a report to prepare to share with the large group.	Three behavior scenarios will be examined, with one assigned to each group and at least two or three groups assigned to the same scenario.
11:30 A-12:00 N	Large group sharing and discussion: discuss practices and discussions about each scenario, were the plans same or different, and how practices compared to differentiation and UDL classroom practices and those that should be best practice for every classroom.	The question will be whether each group was able to approach the planning from the differentiation and UDL perspective, and how different each group's planning might be from another. There is no one answer to planning and noting that flexibility is key.

12:00 N-12:45 P	LUNCH – Take some time to reflect and make individual notes about any practices you might change or incorporate into your classroom as a result of morning activities and discussions.	On site – Bring Your Own.
12:45 P-1:00 P	CO-TEACHING: Review M. Friend – six types of co-teaching.	Co-teaching is already in place in the project site school. This is a brief review to orient the discussion to the place of co-teaching in planning for the inclusive classroom. Handout: Six Types of Co-Teaching (M. Friend, 2015)
1:00 P - 1:30 P	Large group discussion: How does co-teaching fit with inclusion? What type(s) of co-teaching might work and for what specific purpose or application. Large group discussion.	This is designed as an opportunity for teachers already familiar with co-teaching in action to reflect on how co-teaching can align with best practices for inclusion.
1:30 P- 2:00 P	Small group activity: Individually reflect and write down ah-has and take-aways from the two-day session. Share with the cohort team and begin to create a action road map to creating success in the inclusive classroom.	Cohort members will share individual reflections about practices that work or might work and possible changes as a result of inclusion ideas presented and discussed in the two-day session. The Google Doc is shared with all participants and coaches. Each cohort group will select a reporter to report out to the large group on discussion outcomes and add discussion points to the shared Google Doc.
2:00 P – 2:15 P	BREAK	
2:15 P – 2:45 P	Large group discussion: reporting out on reflections and take-aways as a way to summarize and move toward an action plan for each cohort and for the participant group as a whole.	The Google Doc is projected on a screen in the front of the room. The input from each cohort will be shared as a collective list of differentiation and inclusion elements and strategies. Each cohort group reporter will share the group take-aways and reflections with the large group on and add discussion points to the shared Google Doc.
2:45 P - 3:30 P	Cohort small group discussion: Action plan for professional learning communities for enhancing inclusion practices.	Coaches listen in on discussions, reflecting on the two-day workshop sessions and helping to set directions in the action plan for practice going forward. Coaches circulate working with their two assigned cohorts to help the groups assess needs going forward. Each cohort develops an action plan for cohort meetings and professional learning collaboration, either in face-to-face meetings or in technology-based collaboration and networking.
3:30 P – 3:45 P	Individual participants will reflect on their self assessment and reflection worksheets and set personal goals for an action plan. Participants will complete the evaluation form for this two-day professional learning session.	Forms: Formative Self-Assessment Tool; Session Evaluation ASSIGNMENT (due for next large group session in January): in each cohort, teachers will complete at least one 15-20 minute observation of a cohort member, one observation of a teacher outside of the cohort, and have be observed by at least one cohort member. Each observation will be followed by a feedback session with an observation feedback form completed and shared for each observation.

AGENDA – DAY 3 –LARGE GROUP FOLLOW-UP WORK SESSION

Time	Activity	Notes
8:00 A - 8:15 A	Check-In and Coffee	Participants are to go to the eight cohort group tables assigned by number in the room
8:15 A - 8:45 A	Overview of day; reflection and goal setting; discussion of goals	Briefly review agenda and goals for the day; participants will be asked to bring their Formative Self-Assessment Tool completed previously, and reflect and set personal learning goals for this day by reviewing and updating their Self-Reflection and Goal Setting Tool in progress from last session.
8:45 A - 9:15 A	From their experiences and learning so far, cohort members review and expand their list of elements and essential factors for successful inclusive classroom. Cohort members will also discuss what they learned from the observations they completed and the feedback they received from observations.	At their tables, participants select a reporter to report to the large group later.
9:15 A – 10:00 A	Large group sharing – each group reporting in succession giving those elements that have not been mentioned, and sharing learning experiences thus far from the observations completed. Discussion of rationale for why these are essential elements.	Google Doc created in first session day 2 will be projected on the screen. These elements discussed in the session will be compared and the list of elements and strategies expanded and shared as a large group document
10:00A- 10:15 A	BREAK	
10:15 A -10:45 A	Video: Inclusive Classroom -- Modeling (15 min)	
10:45 A-11:30A	CRITIQUE AND DISCUSSION – Cohort small groups: Using perspective of essential elements for inclusion, group will critique the video classroom from the perspective of overall inclusion elements and strategies, including differentiation, UDL considerations, and classroom and behavior management.	Each small group will select a reporter to prepare to share with the large group. This provides an opportunity to reflect on practices from their knowledge and experiences to-date from their professional learning.
11:30 A-12:00 N	Large group sharing and discussion: discuss practices and how they differed or aligned with the essential elements the large group has shared earlier in the Google Doc. Were the elements same or different, and does this suggest what should be best practice for every classroom.	Google Doc will again be projected on the large screen to help discussion and comparison.
12:00 N-12:45 P	LUNCH – Take some time to reflect and make individual notes about any practices you might change or incorporate into your classroom as a result of morning activities and discussions.	On site – Bring Your Own.
12:45 P- 1:30 P	Small group activity: Each cohort member will individually reflect on	Cohort members will share individual reflections about practices that work or might work and possible changes

	learning thus far from observations, feedback, and discussion on ideal elements for a successful inclusive classroom . Share with the cohort team and as a group begin to create a action road map to increasing success in the inclusive classroom.	they plan to incorporate as a result of inclusion ideas presented and discussed in the two-day session. A cohort Google Doc is shared with all participants and coaches. Each cohort group will select a reporter to report out to the large group on discussion outcomes and add discussion points the cohort shared Google Doc.
1:30 P – 2:00 P	Large group discussion: reporting out on reflections and take-aways as a way to summarize and move toward an action plan for each cohort and for the participant group as a whole.	The shared large group Google Doc is again projected on a screen in the front of the room. The input from each cohort will be shared as a collective list of ideal inclusion elements and strategies. Each cohort group reporter will share the group take-aways and reflections with the large group and add discussion points to the shared Google Doc.
2:00 P – 2:15 P	BREAK	
2:15 P - 3:00 P	Cohort small group discussion: Action plan for professional learning communities for enhancing inclusion practices.	Coaches listen in on discussions reflecting on the action plan for improving inclusion practices. Coaches work with their two assigned cohorts to help the groups assess needs going forward. Each cohort develops a specific schedule and plan for the remainder of the year for cohort meetings and professional learning collaboration, either in face-to-face meetings or in technology-based collaboration and networking.
3:00 P – 3:15 P	Individual participants will reflect on their self assessment and reflection worksheets and set personal goals for an action plan going forward. Participants will complete the evaluation form for this day's professional learning work session and learning in the plan overall. They will plan cohort PLC learning goals and activities going forward for the remainder or the school year.	Forms: Formative Self-Assessment Tool; Self-Reflection and Goal-Setting Tool; Session Evaluation Form. Cohorts will leave with an action plan for their professional learning cohort related to the inclusive classroom.

SELF-REFLECTION AND GOAL SETTING TOOL

Name _____ Date _____

On a scale of 1 to 5, with 5 being the highest, rate your current knowledge and skills with inclusion:

1 2 3 4 5

On a scale of 1 to 5, with 5 being the highest, rate your learning as a result of the sessions and activities to-date:

1 2 3 4 5

Personal Learning Goal for this Session:

What is (are) your professional learning goal(s) between now and next workshop or coaching session?

FORMATIVE SELF-ASSESSMENT TOOL

Name: _____

Date: _____

Directions: on a scale of 1 to 5, with 5 being the highest rating, I would assess my knowledge or skills in the following areas as follows (Circle your self-rating):

1. **Knowledge of inclusion approaches in general 1 2 3 4 5**
2. **Classroom Community-Building Skills 1 2 3 4 5**
3. **Differentiation Strategies for Instruction 1 2 3 4 5**
4. **Differentiation Strategies for Assessment 1 2 3 4 5**
5. **Multi-Sensory Teaching Techniques 1 2 3 4 5**
6. **Classroom Management Strategies 1 2 3 4 5**
7. **Behavior Management Strategies 1 2 3 4 5**
8. **Co-Teaching Skills 1 2 3 4 5**

Overall average _____

DIFFERENTIATION/UDL PLANNING TOOL

Sample -- UNIT: Math Word Problems with two operations								
Student	**Challenge**	**Skill /Task**	**How to Learn**	**Choice(s) to Demonstrate Learning**	**Modality/ Access Challenges**	**Learning Style**	**Group v. Individual**	**Student Strengths & Interests**
Sample student: Riya	LD Math - Operations	Decifer key info. and operations needed	Highlight; Manipu-latives	Given an evenly divided number of objects, show and tell orally as to number of groups	Some vision impairment – needs larger print	Hands on	Group	Reading Building blocks; food
Sample Student: Tyler	Reading comprehens ion	Read to understand key info. & questions	Highlight; Break reading into essential info. and questions	Orally give the essential questions and show the math operations in sequence on paper	None	Quiet area; few distraction s	Individual	Math; video games
UNIT:								

STUDENT PROFILES

Johnny: Grade 5 -- Struggles with organization, task initiation and persistence, and getting things down on paper. His math skills are at grade level, but his reading is at approximately 3rd grade level in comprehension and fluency. His oral skills are good and he likes science and the discovery learning it offers. He will engage in discussions. He likes computers.

Mary: Grade 3 – Can decode words, but is challenged in reading fluency and comprehension. Math word problems are difficult for her. She needs visuals to aid understanding and to plan steps or tasks needed. She can follow a storyline if read or told to her, but cannot reproduce the chronology of the elements in the story. She loves animals and stories about animals.

Bobby: Grade 4 – Does not do well in working independently. Even though he can talk through math or writing tasks with prompts, he cannot remember or follow steps in sequence without being led through it step-by-step. He tends to watch others in class as they do their independent work. He is good in art and likes to draw.

BEHAVIOR SCENARIOS

SCENARIO 1

Students are working in small groups on a project. In each group, one student is assigned as the leader, one the reporter, and one the time-keeper. The day before, two students in the class elected to be in the same group and began drawing others off-task. They were feeding off each other in this behavior. Both are capable of the work assigned, but exhibit the characteristics of ADHD, impulsive, noisy and distractible. How would you plan for this to make the activity more successful?

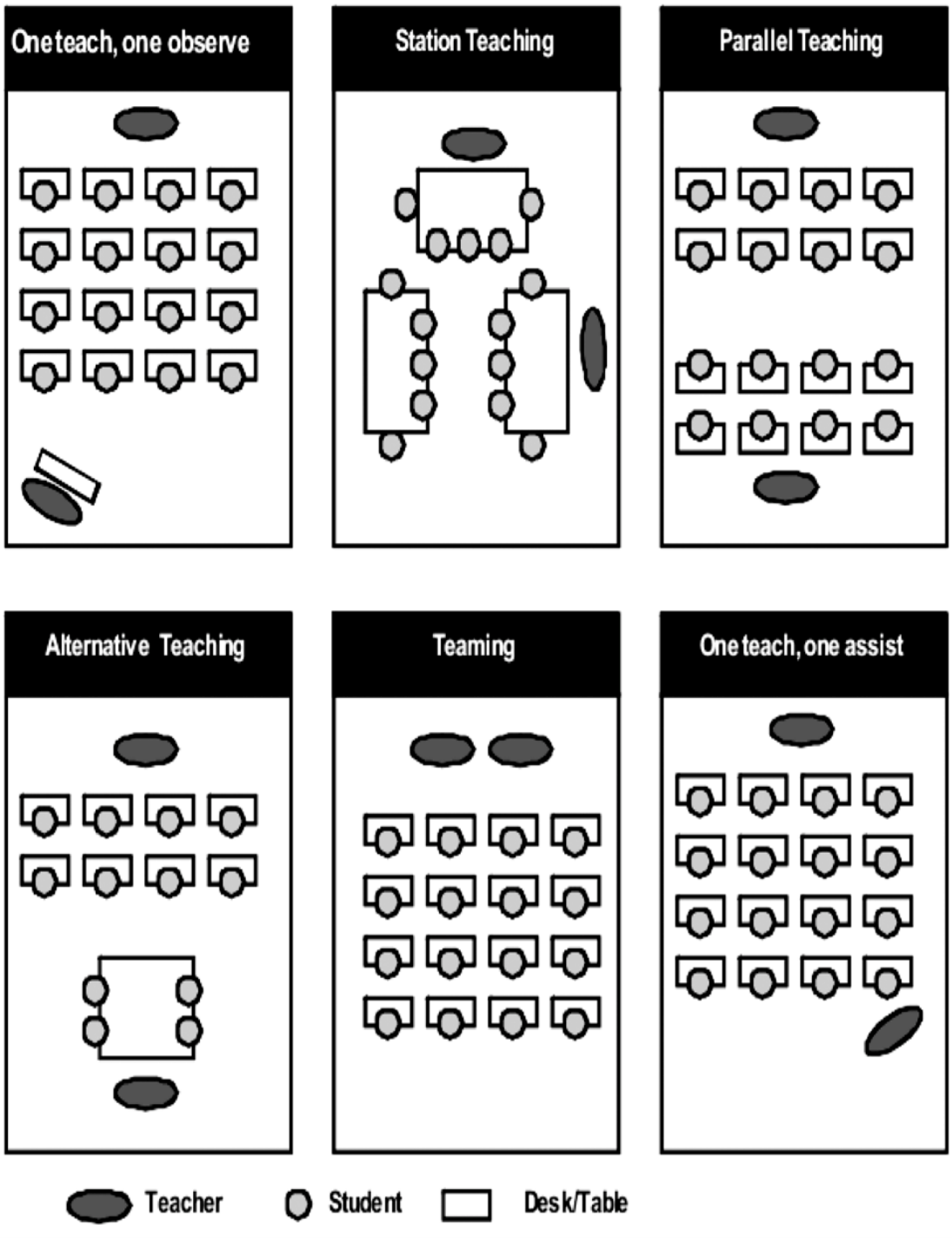
SCENARIO 2

In your class, you have three students who do not handle changes or surprises well, and need well-structured routines. Any of the three can become escalated in various ways if he or she encounters change from what the student considers "normal" routine for the classroom or the school day. You are planning a project-based unit with some community-based activities. How would you plan for this and how would you present it to the class?

SCENARIO 3

You have been planning to introduce a new ELA unit that will require some pre-teaching for all students. You estimate that the time needed will be about 60 minutes. You have two students who have very short attention spans and will become distracted after 10 minutes and try to draw others students off-task. How would you plan your pre-teaching time for the unit to address this reality, without having to stretch it over days?

Models for Co-Teaching – Marilyn Friend (2015)



https://ictmodels.files.wordpress.com/2015/06/ict-models-from-friend-article.png

SESSION EVALUATION FEEDBACK

SESSION DATE: _____

SESSION FEEDBACK (Rate 1 to 5, with 5 being highest):

1. **Access to leader(s) and coaches: 1 2 3 4 5**
2. **Learning toward inclusive practices: 1 2 3 4 5**
3. **Collaboration opportunities: 1 2 3 4 5**
4. **Practical take-aways: 1 2 3 4 5**

   Comment:

   _____

   _____

5. **What was new to you?**

   _____

   _____

6. **What did you already know?**

   _____

   _____

7. **What would you like to see covered in more depth next session?**

   What would you like to see happen during coaching in the months following this session?

SESSION EVALUATION FEEDBACK

SESSION DATE: _____

SESSION FEEDBACK (Rate 1 to 5, with 5 being highest):

1. **Access to leader(s) and coaches: 1 2 3 4 5**
2. **Learning toward inclusive practices: 1 2 3 4 5**
3. **Collaboration opportunities: 1 2 3 4 5**
4. **Practical take-aways: 1 2 3 4 5**

Comment:

_____

_____

5. **What was new to you?**

_____

_____

6. **What did you already know?**

_____

_____

7. **What would you like to see covered in more depth next session?**

_____

_____

8. **What would you like to see happen during coaching in the months following this session?**

_____

_____

OBSERVATION FEEDBACK FORM

Teacher Observed _____ Date/Time _____

Provide constructive feedback to the teacher observed in the following areas:

1. **Inclusive Strategies Observed (check as applicable):**

___ Differentiation
___ Multi-Sensory Instructional or Assessment Techniques
___ Person-First Language
___ Peer Tutoring or Mentoring
___ Choice
___ Lesson / Instruction Designed With All Students Included
___ Positive Classroom Community

Comments:

_____
_____
_____

2. **Strengths for inclusive classroom observed:**

_____
_____
_____

3. **Opportunities for professional learning related to inclusive strategies:**

_____
_____
_____

4. **Overall comments:**

_____
_____
_____

ADDITIONAL RESOURCES

BOOKS:

Causton, J. & Tracy-Bronson, C. (2015). The educator's handbook for inclusive school practices. Baltimore, MD: Paul H. Brookes.

Fitzell, S. G. (2018). Best practices in co-teaching and collaboration: The HOW of co-teaching – Implementing the models. 3rd edition.

Fitzell, S. G. (2017). Special needs in the general classroom: 500+ teaching strategies for differentiating instruction, 3rd edition. Cogent Catalyst Publications.

Friend, M. (2014). Co-teach! A manual for creating and sustaining classroom partnerships in inclusive schools. Greensboro, NC: Marilyn Friend, Inc.

Golden, C. (2012). The special educator's toolkit: Everything you need to organize, manage, and monitor your classroom. Council for Exceptional Children.

HLP Writing Team. (2017). High-leverage practices in special education. Council for Exceptional Children.

Kluth, P. (2011. From tutor scripts to talking sticks: 100 ways to differentiate instruction in K-12 inclusive classrooms. Baltimore, MD: Paul H. Brookes.

McLeaskey, J., Rosenberg, M. S., & Westling, D. L. (2013). Inclusion: Effective practices for all students, 2nd edition. Upper Saddle River, NJ: Pearson Education, Inc.

Meyer, A., Rose, D.H., & Gordon, D. (2014). Universal design for learning: Theory and practice. Wakefield, MA: CAST.

Sapon-Shevin, M. (2007). Widening the circle: The power of inclusive classrooms. Boston, MA: Beacon.

Sousa, D. & Tomlinson, C. A. (2010). Differentiation and brain: How neuroscience supports the learner-friendly classroom.

Tomlinson, C. A. (2014). The differentiated classroom: Responding to the needs of all learners, 2nd edition.

Tomlinson, C. A. & Imbeau, M. (2010). Leading and managing a differentiated classroom.

Tomlinson, C. A. & Moon, T. R. (2014). Assessment and student success in a differentiated classroom.

Udvari-Solner, A. & Kluth, P. (2008). Joyful learning: Active and collaborative learning in the inclusive classroom. Thousand Oaks, CA: Corwin Press.

Villa, R. A., Thousand, J. S., & Nevin, A. (2008). A guide to co-teaching: Practical tips for facilitating student learning. Thousand Oaks, CA: Corwin Press.

Wunderlich, K. C., House, S.N., McCarney, S.B. (2014). Pre-referral intervention manual: The most common learning and behavioral problems encountered in the educational environment, 4th edition. Columbia, MO: Hawthorne Educational Services, Inc.

VIDEOS / WEBSITES:

BLaST IU 17's Best Practices Website

Co-Teaching Classroom Instruction Videos: video segments that illustrate teachers implementing co-teaching strategies in their classrooms
http://www.iu17.org/best-practices/best-practices-videos/co-teachervideos

VIDEOS / WEBSITES (Continued):

CAST – www.cast.org
UDL At a Glance (2010) CAST https://www.youtube.com/watch?v=bDvKnY0g6e4

Center on Response to Intervention at American Institutes for Research
https://rti4success.org

Daily Teaching Tools – Behavior Classroom Management
https://dailyteachingtools.com/classroom-behavior-management.html

Differentiation Central – Differentiation
Differentiation in Action: A Quick Classroom Tour – C A Tomlinson
(https://vimeo.com/265404191)
https://differentiationcentral.com/videos

Edutopia – Classroom Management
https://edutopia.org/blogs/tag/classroom-management

Georgia Department of Education's *Inclusion Project*
https://www.youtube.com/watch?v=4o__NMJuILM

Institute on American Diversity
https://differentiationcentral.com/videos

LD Online: The Educator's Guide to Learning Disabilities and ADHD
https://ldonline.org

The Swift Center: 10 short *SWIFT in 60* films that portray educational practices in inclusive schools
https://www.youtube.com/channel/UCYfjKOqWWxo7rQmwpPpw9Vw

What Works Clearinghouse
https://ies.ed.gov/ncee/wwc

Online Teacher Networks
The Teaching Channel: www.teachingchannel.org

The Carnegie Foundation Gallery of Teaching and Learning
http://gallery.carnegiefoundation.org/collections/castl_k12/jcone/ind

Appendix B: Study Consent, Questionnaire, Purpose, and Instructions

Professional Development Needs for the Inclusive Classroom
Consent and Study Information

CONSENT: You are invited to participate in a research study of inclusive elementary classroom teachers. You are being invited because you teach in an inclusive classroom for all or part of your day. Your school administrator provided your e-mail address to give you the option of taking part in a study that could potentially offer information on teachers' needs for teaching students with special or diverse needs in an inclusive classroom. The study is being conducted by Laurel Ellis who is a doctoral student at Walden University. Laurel Ellis does not work or have any contractual ties with the District. Any questions about the research should be e-mailed to: [e-mail address redacted]. To protect your privacy, no consent signature is requested. Instead, you may indicate your consent by clicking on the questionnaire link to access the web-based survey. If opting to participate in the follow-up e-mail interview, please indicate your consent for that phase of the study by including e-mail address in the last question on the survey. Participants may print this consent and research study information for reference. Questions about your rights as a participant in the research study may be sent to the Walden University Representative: irb@walden.edu. Walden University's approval number for this study is 05-27-16-0197466 and it expires May 26, 2017.

PURPOSE OF THE STUDY: The purpose of this study is to obtain information on teacher needs for professional development to teach effectively in the inclusive classroom. With policy and practice moving toward increased inclusion of learners with special and diverse needs in the general education classroom, teacher perception of readiness and professional learning needs is an important element to help in planning.

CONFIDENTIALITY: Your response is on a voluntary basis and no information will be reported specifically identifiable to an individual; responses will be coded and only reported as aggregate data. You may discontinue the study at any time with no penalty or negative feedback.

RISKS / BENEFITS: Because participation is totally voluntary and by choice and the findings will be kept confidential, there are no foreseeable risks. There is no compensation for participation. Based on findings from this research study, implications for a project could emerge that might benefit teachers and/or the school in addressing needs related to inclusion.

PROCEDURES: Choice to participate is totally voluntary. The survey portion of the research will continue for four weeks. If choosing to take part in the research, teachers will complete the web-based questionnaire. Those completing the questionnaire will also be asked to participate in a brief follow-up e-mail interview by providing an e-mail address in the last item on the survey. This interview is also totally voluntary and will be designed to expand on findings from the questionnaire. The researcher will e-mail the interview to those willing to participate in the follow-up in approximately four weeks after the survey phase is over and the responses will be e-mailed.

DURATION OF PARTICIPATION: If choosing to respond, participants can expect to spend approximately 10 – 15 minutes in responding to the web-based questionnaire. Participants in the follow-up e-mail interview approximately four weeks after the survey should anticipate spending 15 to 20 minutes in responding to those interview questions.

LINK TO QUESTIONNAIRE: To participate, please click on the link:

Professional Development Needs for the Inclusive Classroom
Teacher Questionnaire

CONSENT: You are invited to participate in a research study of inclusive elementary classroom teachers. The study is being conducted by Laurel Ellis who is a doctoral student at Walden University.
PURPOSE OF THE STUDY: The purpose of this study is to obtain information on teacher needs for professional development to teach effectively in the inclusive classroom.
CONFIDENTIALITY: Your response is on a voluntary basis and no information will be reported specifically identifiable to an individual and only reported as aggregate data. You may withdraw from the study at any time.
LINK TO QUESTIONNAIRE: To participate, please click on the link _____.
*(Adapted from U.S. Department of Education, National Center for Education Statistics (NCES) Schools and Staffing Survey (SASS) (NCES, 2011)

Questionnaire
(Entered into Survey Monkey link with closed and open-ended choices)

1. *What is your position at Buxton Center Elementary?
   - General Education Classroom Teacher
   - Special Education Classroom Teacher

2. *Including this school year, how many years have you worked as an elementary teacher?
   - 1 - 2 years
   - 3 - 5 years
   - 5 – 10 years
   - 11 – 20 years
   - more than 20 years

3. * How many of your students this year have an IEP (are identified for special education)?
   - 1 – 5
   - 6 – 10
   - more than 10

4. * How many of your students are limited English proficiency (LEP) or English language learners (ELLs)?

- 1 – 5
- 6 – 10
- more than 10

5. * What is your assigned teaching level? Grades K – 2 or Grades 3 – 5?
   - K/Pre-K to 2
   - 3 - 5

6. *Do you instruct only one classroom or do you teach one or two subjects to several classes?
   - One classroom
   - One or two subjects to several classrooms

7. * How many students do you teach?
   - Under 10
   - 11 – 15
   - 15 – 20
   - More than 20

8. * Is your degree in Elementary Education? Special Education? Other?
   - General elementary education
   - Special education
   - Other _____

9. * What is/are your teacher certification(s)?
   - Elementary Education
   - Special Education
   - Literacy
   - Other _____

10. * Did you have practice or student teaching?
    - Yes
    - No

11. * What is your highest degree?
    - Less than Bachelors
    - Bachelors
    - Masters

- CAGS / Masters plus 30
- Doctorate

12. * How prepared do you feel you are to differentiate instruction in the classroom?
    - Unprepared
    - Moderately prepared
    - Well-prepared
    - Always ready for more preparation

13. * How prepared do you feel you are to handle a range of classroom management or discipline situations?
    - Unprepared
    - Moderately prepared
    - Well-prepared
    - Always ready for more preparation

14. * How prepared do you feel you are to use a variety of instructional methods?
    - Unprepared
    - Moderately prepared
    - Well-prepared
    - Always ready for more preparation

15. *In the past 24 months, did you participate in any university courses related to inclusion education?
    - Yes – on-site
    - Yes – off site
    - 1 – 5 hours
    - 5- 10 hours
    - 10 - 20 hours
    - More than 20 hours
    - None

16. *In the past 24 months, did you participate in any workshops/conferences/trainings sessions related to inclusive classrooms?
    - Yes – on-site
    - Yes – off-site
    - 1 – 5 hours

- 5- 10 hours
- 10 - 20 hours
- More than 20 hours
- None

17. *In the past 24 months, did you participate in any professional development related to how to teach students with disabilities? On-site or off-site?
    - Yes – on-site
    - Yes – off site
    - 1 – 5 hours
    - 5- 10 hours
    - 10 - 20 hours
    - More than 20 hours
    - None

18. * In the past 24 months, did you participate in any professional development related to how to teach limited English proficient students or English-language learners (ELLs)? On-site or off-site?
    - Yes – on-site
    - Yes – off site
    - 1 – 5 hours
    - 5- 10 hours
    - 10 - 20 hours
    - More than 20 hours
    - None
19. How much more professional learning do you believe you need to meet the diverse needs of students in the inclusive classroom?
    - 1 – 5 hours
    - 6 - 10 hours
    - 11 - 20 hours
    - More than 20 hours
    - None
    - Specific learning area(s) in order of priority: 1)_____
    - 2)_____
    - 3)_____
    -

20. What is your preferred learning mode for professional learning related to meeting the needs of students in the inclusive classroom?
    - Coursework
    - Workshops
    - Coaching / Mentoring
    - Professional Learning Groups
    - Independent Study
    - Other

      _____

Appendix C: Confidentiality Agreement

CONFIDENTIALITY AGREEMENT

Name of Signer: Laurel T. Ellis

During the course of my activity in collecting data for this research: ***"Professional Development Needs for the Inclusive Classroom***," I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant. Only aggregate data will be shared with School Administration unless express consent is given in writing.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the research that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above

Signature: **Date:**

Appendix D: NCES SASS Teacher Survey -- Public Domain Status

From:	IES NCES SASSDATA <SASSDATA@ed.gov>
To:	Laurel Ellis <e-mail address redacted>
Date:	Monday - December 19, 2011 8:25 AM
Subject:	RE: Use of SASS questionnaire

Dear Prof. Ellis,

The Schools and Staffing Survey (SASS) questionnaires are in the public domain, that is, there is no permission needed for you to use any portion of them in your own research. That is why they are posted on our website. The current set of questionnaires (for the 2011-12 data collection) have not yet been posted, but will be in 2012.

Sincerely,

Kerry Gruber
Project Director
Schools and Staffing Survey
U.S. Department of Education, National Center for Education Statistics, IES
1990 K St. N.W. #9018
Washington, D.C. 20006

-----Original Message-----
From: Laurel Ellis [e-mail address redacted]
Sent: Friday, December 16, 2011 1:59 PM
To: IES NCES SASSDATA
Subject: Use of SASS questionnaire

Hello,

I would like to conduct a smaller scale survey using the staff development section on the 2007-2008 SASS teacher questionnaire (or the 2011-2011 questionnaire when available), along with some of the demographics questions. How would I go about getting permission for this?

Laurel Ellis
University of New England, Dept. of Education
Doctoral Student, Walden University

Appendix E: E-mail Interview Questions

Professional Development Needs for the Inclusive Classroom

Follow-Up E-mail Interview

Perspective Information:

- What is your position at the [school name redacted]?_____
- Including this school year, how many years have you worked as an elementary teacher?_____
- How many of your students this year have an IEP (special education)? _____
- How many of your students are English language learners (ELLs)?_____
- Is your degree in Elementary Education? Special Education? Other?_____
- What is/are your teacher certification(s)? _____
- What is your highest degree? _____

Interview

Please write your response immediately following each question:

1. *If you were to step back and reflect on level of preparation to teach in an inclusive classroom, how much does the amount of training and professional development factor in? How much does teaching experience factor in? Other factors?*

2. *In your estimation, how much of a role does confidence level have in perceived readiness to teach students with diverse needs in an inclusive classroom, and what would help to bolster confidence for meeting the demands?*

3. *From your perspective, what is most important for you as a teacher to know or be able to do in order to be effective in an inclusive classroom? Why?*

4. *In your view, what types of professional learning opportunities would be most effective to help prepare you for the demands of the inclusive classroom and why? Give specific examples.*

5. *If you were to map out an ideal professional learning and support program for teachers at Buxton Center Elementary to become more confident in both knowledge and skills for an inclusive classroom, what components would it have? Consider school-based as well as external resources and components.*

E-mail your completed interview response back as an attachment to [e-mail address redacted]

Appendix F: Interview and Survey Sample Journals

Appendix F: SAMPLE JOURNAL ENTRIES - INTERVIEW DATA RESPONSES SUMMARY

Code	YRS EXP	Degree	IQ 1: Preparation to Teach in Inclusive Classroom --Training/PD vs Experience	IQ 2: Role of Confidence in Readiness for Inclusion	IQ 3: Most Important Knowledge or Skills for Inclusive Classroom	IQ 4: Types of Professional Learning Needed to Help Prepare for Inclusive Classroom	IQ 5: Components for Ideal PD Program to Help Become More Confident for Inclusion
IR4	1	M	Experience as an Educational Technician greater than PD; however not prepared for behaviors – need support	Confidence is not the issue in readiness.	Positive Behavioral Intervention and Support (PBIS) for behavioral students (the "outliers")	- support /incentives for behaviors - training, resources, and support for inclusion	-library of resources: OT/sensory needs, behavioral and academic strategies -regular contact w/ BHPs
IR2	2	B	PD/training important; however, experience is greatest factor	Confidence is important. Need more opportunities to see strategies in action and more supports to bolster confidence	Ability to build relationships with students in order to "build respect . . . and a classroom community"	- classroom community building - classroom management - differentiation	-opportunities to observe other teachers - support in the classroom
IR3	8	M	Training is important; on the other hand, teacher willingness to change traditional approach is the biggest factor	Confidence important, but need training with someone to mentor for problems, support for students with disabilities, support group	Knowing student needs, triggers, how to help and get other students to collaborate with students with special needs	- training in all different areas of needs, academic and behavioral - how students work and importance of providing what they need	-regular meetings for training at school - check-ins from knowledgeable staff
IR7	10	M	Limited training in working in inclusion setting; has students with severe needs	Confidence is key for working with students; teacher confidence is mirrored in students' success	Differentiation is most important – knowing how to meet the needs of ALL students	- differentiation of assignments in many ways	-real examples of how this could work – grade-level specific
IR6	17	M	Training/PD extremely important, but teaching experience enhances preparation	Confidence plays a key role. To help, all teachers should have buddy/mentor to work with	Knowledge of best practices, students' abilities, support from admin, colleagues, and educational technicians	- visiting schools to see successful inclusion -"real world experience"	-ample educational technicians for support -visits to other schools -mentor or "buddy" teachers
IR5	18	M	Training and experience are equal; however, training must be specific to the school and class needs	Confidence helps, but key is having the training, tools, and supports to address the demands	Knowledge of student needs provided by list of accommodations (600+ students – library specialist)	Include specialists in training programs for these students outside their classroom	"not in my area of expertise"
IR1	33	M_CAS	Students from teacher preparation programs are not ready. Student teaching is not enough; need to expand experience with a full year internship	One-shot PD is not enough to help confidence; need in-house trainer in school or district	Content through classroom management and community building	- professional development (PD) on-site - - from administrators, teachers, and consultants for on-going PD	-frequent on-site consults accompanied by in-district or school mentors and coaches – become part of consultant(s)' team for carryover

KEY: IR = Interview Respondent IQ = Interview Question
YRS EXP = Years of Teaching Experience Degree = Highest Degree PD = Professional Development

Appendix F: SURVEY DATA JOURNAL: Preparation Self-Assessment Survey Qs: 12, 13. 14, 19

Code	YRS EXP	Degree	Spec Educ	SQ 12: Prepared for Differentiation	SQ 13: Prepared for Class Management/Discipline	SQ 14: Prepared for Using Variety of Instructional Strategies	SQ 19: More PD Hours Needed?
SR 1	1-2	B		Moderately	Well	Well	11 -20
SR 6	1-2	B	Yes	Well	Well	Moderately	1 - 5
SR 11	1-2	M		Moderately	Moderately	Moderately	11 -20
SR 12	1-2	M		Well	Moderately	Well	1-5
SR 16	1-2	M		Moderately	Well	Well	1 - 5
SR 17	1-2	B		Moderately	Well	Moderately	11 - 20
SR 3	3-5	B		Moderately	Moderately	Well	6 - 10
SR 13	3-5	B		Always Ready for More	Well	Moderately	None
SR 27	3-5	M		Always Ready for More	Always Ready for More	Always Ready for More	6 - 10
SR 8	6-10	B		Moderately	Moderately	Moderately	6 -10
SR 9	6-10	B		Always Ready for More	Always Ready for More	Always Ready for More	Over 20
SR 10	6-10	B		Always Ready for More	Always Ready for More	Always Ready for More	6 -10
SR 19	6-10	B		Always Ready for More	Always Ready for More	Always Ready for More	1 - 5
SR 21	6-10	B		Well	Well	Well	No estimate-yearly update
SR 25	6-10	B	Yes	Well	Well	Moderately	6 - 10
SR 2	6-10	M	Yes	Well	Well	Well	None
SR 5	6-10	M		Well	Always Ready for More	Always Ready for More	1 - 5
SR 24	6-10	M _CAS		Always Ready for More	Always Ready for More	Always Ready for More	1 - 5
SR 14	11-20	B		Always Ready for More	Well	Well	1 - 5
SR 20	11-20	B		Always Ready for More	Always Ready for More	Always Ready for More	6 - 10
SR 23	11-20	B		Well	Always Ready for More	Moderately	Over 20
SR 26	11-20	B		Moderately	Well	Well	6 -10
SR 7	11-20	M		Well	Well	Well	1 - 5
SR 22	11-20	M		Always Ready for More	Always Ready for More	Well	Over 20
SR 15	20 +	M_CAS		Well	Well	Well	None
SR 4	20 +	M		Moderately	Well	Well	Over 20
SR 18	20 +	M		Moderately	Well	Moderately	6 - 10

KEY: SR = Survey Respondent SQ = Survey Question YRS EXP = Years of Teaching Experience Degree = Highest Degree Spec Educ = Special Education Degree SQ 12, 13, 14 Prepared? = Perceived Level of Preparation PD = Professional Development