

Pre-service professional development for inclusion teachers

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ABSTRACT

Teachers struggle to provide stimulating academic support for some students in inclusion classrooms (Chitiyo & Brinda, 2018). Inclusion is the instruction of students considered deficient in certain skills and abilities associated with academic achievement. The students, referred to as special education, learn along with their non-special education counterparts in minimally restrictive environments (Dudley-Marling & Burns, 2014). The learners with dissimilar traits due to psychological, behavioral, social, academic, and physical differences create challenges for many educators (Moore, Ford, & Milner, 2005; Van Tassel-Baska, 2018) because the students require explicit teaching approaches for educational success (Steenbergen-Hu & Olszewski-Kubilius, 2017). Professional development of teachers in undergraduate school minimizes disengagement because the skillful utilization of curriculum to differentiated instruction occurs during pre-service activities (Van Tassel-Baska, 2018). The know-how requires attention to undergraduate developmental processes during pre-service training and in-service classroom supervision (Alila, Maatta, & Uusiautti, 2016; McElwee, Regan, Baker, & Weiss, 2018).

To gain the perceptions of teachers about their pre-and in-service professional development for inclusion classrooms, a qualitative exploratory case study was conducted on teaching general education students using both special and general education teachers as subjects. Based on the analysis of the data, a major constant was that professional development for pre-service teachers lacks specificity for inclusion because of the all-encompassing nature of their students' characteristics. Information obtained from this study can assist public school leaders, practitioners, and policymakers to consider future higher education program reforms in the light of inclusion, so teachers are prepared to effectively disseminate lessons.

Keywords: pre-service teachers, inclusion, professional development, co-teaching

INTRODUCTION

After the passing of the Compulsory Education Act of 1852 in the United States, school administrators organized classes with students of comparable aptitudes, cognitive abilities, and physical skills into groups of like learners (Findlaw, 2016). The 1852 law required every city and town to offer primary school, focusing on grammar and basic arithmetic. Instruction continued in a similar fashion in the United States but changed to encompass the growing enrollment of students during the century. Measured demographics from 1985-2017, revealed a 32% rise in public elementary school admissions (National Center for Educational Statistics, 2017). Due to the increasing population and diversity resulting from the expansion, instructional approaches for learning in the educational system shifted (Wraga, 2017). Also, during this time, shifts in educational reforms because of changing political ideology led to the reconfiguration of some student populations into mixed ability inclusion classes (Snyder, deBrey, & Dillow, 2016). Academic accountability and social responsibility to disabled students, who up until this time learned in segregation, was addressed through the Individuals with Disabilities in Education Act (United States Department of Education, n.d.). Consequently, special education children with mild disabilities are taught along with their general education cohorts in inclusion classrooms (United States Department of Labor, n.d.). The Digest of Statistics reported 62.5% of special education children spend 80% of their learning in mixed abilities inclusive classrooms (National Center for Educational Statistics, 2017). Special education students classified by Individualized Evaluation Plans (IEPs) with varying needs for emotional, physical, intellectual, and socialization supports, and their non-special education peers are taught together in inclusion classes (Al-Subaiei, 2017).

Mixed populations of learners with dissimilar psychological traits, behaviors, and social needs create implications for educators (Moore, Ford, & Milner, 2005; Van Tassel-Baska, 2018). The United States Department of Education (n.d.) lists fourteen categories with the variegated spectrum of autism assigned to one classification. The lists include students who are autistic, deaf, deaf-blindness, developmentally delayed, emotionally disturbed, hearing impaired, intellectually disabled, multiple disabled, orthopedically impaired, other impairments, speech, or language impaired, specific learning disabled, traumatically brain-injured, and visually impaired including blindness. Educating students with diverse learning capabilities requires on-going proficiencies in lesson plan differentiation, curriculum utilization, and strategic scaffolding approaches (Aydin, Ozfidan, & Carothers, 2017). Performance indicators and markers from national databases assist district-level administrators to draw inferences about curriculum utilization, educators' pedagogical development, and in-service training practices, conventionally. The generalized data from national standardized exams are devoid of substantial information regarding professional development leading to efficient classroom practices. Questions arise about the effectiveness of professional development and the use of instructional tactics in inclusion (Jimenez & Barron, 2019) because some teachers struggle with blended environments (Chitiyo & Brinda, 2018).

Educators' roles are significant in implementing outcomes in class, but without professional development processes in place, the intricacies of student achievement remain unchanged (Gavish, 2017). As an example, some gifted students are in the general education student population without the benefit of an IEP. Gifted students, categorized as special education, according to the Marland Report (1972), may remain underdeveloped due to the lack of specific training leading to heightened mental acuity and critical thinking. Educational

programs or services beyond those provided in general classes are vital for gifted students to realize their self and potential (Ecker-Lyster & Niileksela, 2017). Broader objectives for such a wide range of students means knowledge to modify curricula and differentiate lesson plans during pre-service professional development. Instruction, then, becomes more than curricula mastery but educators' engagement in technical, humanistic, and creative processes to achieve outcomes for the different learners (Voorhees, 2016). Dewey (1938) stated that what we know about society is the basis for schooling. The education of teachers is the foundation for the continuum of growth and direction in student populations because the greater the experience of the teacher, the deeper is the learning for the student. Dewey, in his experimental constructivist model, stated separation between theory and practice does not exist because an individual's environment, personal effects, and behaviors contribute to the base of know-how. The practice of differentiating instruction due to social reforms and political influences was the reason educational theorists such as Tyler (1949), greatly influenced by the philosophies of Dewey, sought diversification of in-service professional development preparation (Plate, 2012). According to Pawlyshyn and Hitch (2016), instructors of teachers are vendors of intellectual vitality and essential in higher learning.

PROBLEM

Teachers in inclusive classrooms instruct learners with mixed abilities without detailed information about how to teach to all the students' educational inclinations (Chitiyo & Brinda, 2018; Prast, Van de Weijer-Bergsma, Kroesbergen, & Van Luit, 2018). Chitiyo and Brinda stated a need exists for instructors to apply methods that engage the totality of students with equal strategies. In the region of the research study, educators receive certification and are tested to meet state-level requirements that vary from state to state (Huskin, Mundy, & Kupczynski, 2016). Special education teachers take additional coursework to demonstrate their qualifications to teach special needs students ("New York State Teacher Certification for Special Education", 2020). The wide spectrum of special and general education needs may leave some unequipped as novice instructors, especially general education teachers called upon to teach special education students. General education teachers obtain masters' degrees but not for specialized education and may lack the necessary professional development preparation to instruct general education and special education students with varying capabilities in inclusive classroom environments (Al-Subaiei, 2017; Woolf, 2019). Woolf stated skills for educators in inclusive classroom environments are critical and professional development is vital for effectiveness. Research conducted by Huskin et al. suggested teacher efficacy decreases when confronted with difficult students. Teaching multiple students with differing disabilities results in personal displeasure but training minimizes unexpected challenges. Huskin et al., (2016) added general educators' hands-on with special education students is becoming the norm leaving them with the need to adapt without solutions because inclusion predates their undergraduate training. Preparation in higher education is a critical support for pre-service teachers' delivery of effective instruction, research, and service to students (Hott & Tietjen-Smith, 2018, Huskin, et al. 2016).

PURPOSE

The purpose of this study was to explore teachers' perceptions of professional development preparation to differentiate curricula for general education students. The research

aided understanding of the transfer of pre-and in-service professional developmental processes to instruction in inclusive classroom settings. To gain perspectives of elementary educators' higher education development during pre-service tenure, a qualitative case study using an exploratory approach was conducted. The measurements from national statistics paired with studies about instructional preparedness would enable school administrators to invest in staff development, address classroom ratios, and consider a balanced distribution of resources. Teachers of students with various levels of intellectual, social, emotional, and physical abilities provided feedback through semi-structured interview questions about perceived preparation to deliver lessons.

SIGNIFICANCE OF THE STUDY

Exploring how educators perceived developmental processes for instructional preparedness for different learners increases pre-and in-service training initiatives. Findings from the study were a continuation of a dialog already started about advancing teachers' Pedagogy Content Knowledge (PCK) and increasing learning supports (Park, Suh, & Seo, 2018; Suh & Park, 2017). Suh and Park stated that PCK is important knowledge about what the student understands and how to use instructional strategies to transform and represent subject content. Park et al.'s definition of PCK extends into subject content, general awareness, instructional delivery, reasoning, and knowing the students. A study about training from educators' perspectives about their utilization of professional development was necessary to understand undergraduate school objectives and classroom experiences (Al-Subaiei, 2017).

NATURE OF THE STUDY

This case study was designed to explore teachers' perceptions of professional development preparation to differentiate instruction to general education students in inclusive classrooms. Expressions about teaching were an inquiry of educators' pre-service and in-service professional development for instructional strategies. The questioning format was a conceptualization of the participants' short and long-term practices conveyed through semi-structured interview questions, a lesson plan examination, and a classroom observation (Morse, 2015). Exploring the topic through dialog with general and special education teachers revealed aspects of instructional viewpoints for dissimilar students in inclusive classrooms. A qualitative method and design were considered because qualitative analyses are suitable to identify intangible or unknown aspects of circumstances such as "what" or "how" about a situation, individual, or groups' experiences (Morse, 2015). Exploratory case studies, as the specific design, are an investigation of individuals' perspectives of a problem, social interaction, and influence on a procedure (Morse, 2015).

FRAMEWORK OF THE STUDY

Social Constructivist Theory was the foundation for this investigation of teachers' perception of professional development processes in inclusive classrooms. Social constructivist theories maintain that individuals learn from their peers; students learn in community with each other, and from their teachers who facilitate the learning (Bandura, 1993). The theory is applicable for students, student-teachers in pre-service, and in-service during instruction. The relationships consist of individuals who learn together during interconnected human behavior

(activity or inactivity). The learning is formed from shared prior experiences that promote mental processing and cognitive development (Bandura, 1993). Much of teachers' skillsets develop during pre-service professional development are based on basic principles that involve student-teacher educational strategies and the classroom population's capacity to learn (Pawlyshyn & Hitch, 2016). McMillian and Gordan (2017) identified five areas of professional development needed for faculty to deliver efficacious instruction to pre-service students: “ (a) a community of practice, (b) academic freedom, (c) position statements, (d) development opportunities, and (e) supportive environments” (p.777). Higher education professors provide vision toward growth.

Galustyan, Berezhnaya, and Beloshtsky (2017) said teachers' professional development connects to personal growth and is the self- movement toward their needs, motives, goals, and tasks. Characteristics such as activity levels, initiatives, responsibility factors, self-regulated behaviors, and determination affect the dynamics of professional development for the individual. Growth is manifested through increased amounts of self-organization, self-assertion, and self-realization in the classroom setting through known constructs. Tyler (1981) stated educators working in various environments should teach lessons with skills and content relating to children's assessed capabilities. The transfer of training to practice is achieved by (a) giving attention to details, (b) increasing retention of newer facts, (c) applying learned skills through mimicry, and (d) cultivating motivational essentials based on former learning paradigms (Bandera, 1993). A primary tenant of social constructive beliefs is that individuals acquire information vicariously from others, ideally during undergraduate studies of higher education. Since learning is a continuum, built upon foreknowledge, student learning begins with participation, engagement, and order that assist in motivation and ability development (Cleary & Kitsantas, 2017). Teachers' pre-service or in-service professional development assist educators to differentiate instruction to a wide variety of students. Instructors with adequate training disseminate knowledge to diverse students by creating environments suitable for learning in social communities through modification of instruction (Kalin, Peklaj, Pecjak, Levpuscek, & Zuljan, 2017). Social constructive ideologies are an imposition of behaviors, cognition, and the external climate which is why pre-service development is an essential factor in instructing diverse groups of learners.

PRE-SERVICE PROFESSIONAL DEVELOPMENT

Pre-service professional development is learning acquired during undergraduate studies for potential teachers to instruct students. Professional development in institutions of higher learning is at the center of the learning discussion because the efficiency of instruction lies with the educators who must be taught to teach. The primary focus of teachers' efficacy is what they know and can demonstrate through sustainable evidence in the classroom. Evidence is a quantity of fact or information that signifies whether a proposition or belief is accurate or valid (Evidence, 2019). National educational data banks use comparative analyses about benchmarks, core skill requirements, performance indications, and target competencies that gauge proximity to state standards and provide information about what students know. The data does not directly reflect teachers' performances neither indicates pre-service supplementation needs (Snyder et al., 2016). Professional development preparation for incoming teachers should begin with aligning undergraduates' syllabi with training for a projected population of students; likened to specialization in the field of medicine (Agodini & Harris, 2016). Agodini and Harris argued three characteristics influence curricula execution; most of which begin in pre-service development,

(a) teachers' knowledge, (b) teachers' attitude toward content specialization, and (c) the magnitude of curricula differentiation necessary in class. Learning to teach lessons with relevance to students is significant and essential during pre-service training (Glenn, 2018). Glen also suggested that teachers' central beliefs about their abilities impact roles and responsibilities in mixed-ability environments. Ongoing measures of instructional quality matched to academic objectives during student teaching add insight into undergraduate delivery methods and the confidence displayed in class (Glenn, 2018). Teachers taught to diversify instruction for populations of interest develop professionally and can align national benchmarks, curriculum, and units of study to learning activities with meaningful lessons (Al-Subaiei, 2017).

Teaching programs, for pre-service training, constructed in different ways have variety in respect to the sequence of knowledge attained, the process of usage, and expected outcomes (McElwee et al., 2018). Different assumptions about the course content, the role of the teachers and learners, levels of autonomy, and support for educators require addressing in pre-service development (Agodini & Harris, 2016). A course syllabus becomes a blueprint that assists the professor to determine the best ways to teach their undergraduate studies in inclusive environments. Dewey (1938) expressed the importance of education and the application of learned content. He stated that the interaction between teacher to student and student to student shapes the educational experience in the classroom. In higher education undergraduate studies, the student-teacher is the student (McElwee et al., 2018). Tyler (1949), an instructor of pre-service teachers, recognized the importance of educating his students with specific knowledge and created assessment tools, much of which aligned with Dewey's research, to optimize the experiential nature of future classroom logistics. Tyler's work, created in response to significant changes in society, altered traditional practices of instructional delivery. During the time of his primer "Principles of Curriculum and Instruction" influences on instruction were: (a) growth of school enrollments, (b) assessing measures for student and teacher performances, (c) teacher training, (d) and curricula designed to match different students. His rationale, based on concerns during his time but still relevant, was to guide pre-service teachers' professional development in communities of learning. The reform was a radical approach for instructional development because up until then, transactional evaluations in the form of standardized, normative, and statistical metrics applied to teachers' performances and drove instructional strategies.

Tyler's (1949) logic benefitted higher education objectives by identifying the strengths and weaknesses of upcoming instructors and created a framework for pre-service professional development (Wraga, 2017). Tyler's movement suggesting teachers needed adjustable curricula plans to ensure proper outcomes in the classroom was the beginning of understanding instructional differentiation thought (Plate, 2012). Plate suggested that curriculum development progresses in the context of increased social and environmental complexity. Through teachers' professional development preparation and the acknowledgment of population acculturation shifts differences in instruction began to evolve. Recognizing critical components of professional development preparation enhances current and future instructors' efficiency and ultimately, over time, impacts learning within classrooms. Examining, coaching, and checking-in are collaborative efforts to improve the instructional manner of future educators through relationships and corrective input during the time of formulating best practices. Monitoring the professional development of pre-and in-service teachers improves their abilities to expand student learning because strategic procedures need refinement during practice and experience (Alila et al., 2016; Dewey, 1938; Stark, McGhee, & Jimerson, 2017).

Understanding how to instruct in inclusion is vital to teaching students with mixed abilities. Along with the know-how are the beliefs educators hold about the personal capability to learn. Apart from confidence building, best practices result from personal experiences of increased awareness (cognition), knowledge about attainment (selection), influences on others (affect), and possession of a drive to accomplish tasks (motivation) (Bandura, 1993). Glenn's (2018) study measured teachers' epistemological beliefs (what can be known) about learning and teaching in inclusive classrooms. Participants for the Beliefs about Learning and Teaching Questionnaire (BLTQ) consisted of 120 pre-service teachers and 34 in-service educators. The study was a mixed-method examination of the relationship between teachers' beliefs about ability, responsibility, and practice. During semi-structured interviews, participants' perspectives varied from fixed to fluid beliefs about their abilities to make a difference in instruction. Pre-conceived notions were the mediating factors about how the teachers approached teaching. The strongest factors were teachers' beliefs about classroom environment control. The second element was that facilitation rather than the transmission of knowledge guides the process of learning. Teachers who understand their beliefs about ability, teaching, and learning can utilize curriculum and partnerships to instruct in different ways, such as in co-teaching associations that should be introduced in higher education institutions.

CO-TEACHING

Co-teaching is one strategy used widely in inclusion by which special and general education teachers co-exist in the classroom (Chitiyo & Brinda, 2018); in communities of learning through alliances, as suggested in Social Constructivist theory. Teachers' preparedness in practice is negotiable, under these circumstances, because many models for classroom management involves the movement of special education teachers into general education classes, renamed inclusion. General education teachers viewed as the content provider, in most cases, supply (a) how content is taught, (b) classroom management of large groups to transitional smaller groups, and (c) the pace of learning. In co-partnering, the special education teachers provide (a) modifications of the curricula, (b) understanding the specific needs of the student, and (c) a focus on the mastery of skills. Co-teaching is a complex relationship in inclusive environments that can be cultivated in higher education studies for the following reasons.

The complexity of co-teachers to accomplish the task of teaching in a mixed abilities class exists in two paradigms of shared understanding. Rytivaara, Pulkkinen, & deBruin (2019) stated co-teaching is a tool by which teachers respond to the diversity of heterogeneous student populations during in-service activities. The second viewpoint is that co-teaching, seen as a necessary partnership during pre-service training, enhances the undergraduate teacher on a personal level. Rytivaara et al. argued that co-teaching is the pairing of two strong affiliates who merge skills during synchronization of co-planning socialized events. Each view is an acknowledgment of an existing union of two or more individuals, but the first suggestion is co-teaching is a tool developed while instructing mixed-abilities students (in-service). The second paradigm is co-teaching is a required partnership developed during pre-service activities. Both views suggest co-teaching improves the teachers and students by synergistic agreement and practice in the inclusive environment through socialization. Effective co-teaching is more than classroom management but includes knowledge of strategies for instruction. Shulman (1986) stated teaching is knowing student difficulties, recognizing preconceptions about the topic

context, and applying efficient methods to address the students preferably during undergraduate guidance.

METHODS AND PROCEDURES

Seven special education and three general education elementary teachers within a school district in the eastern United States participated in telephone interviews consisting of 12 semi-structured questions. The study included a lesson plan analysis and a classroom observation of co-teachers working together in inclusion. Teachers were categorized into three groups of (a) 1-5 years, (b) 5- 10 years, and (c) greater than ten years of experience. A purposive criterion selection process was used to determine eligibility for participation. The following criterion was used for participation (a) criterion one, teachers needed to identify years of service; (b) criterion two, teachers needed to be certified; and (c) criterion three, teachers must teach in an inclusion classroom. A minimum of 10-15 participants for this qualitative exploratory single case study satisfied the research design (Yin, 2013). The study was not generalizable because the researcher did not focus on the degree of variance measurable in data sources from a large population; as done in quantitative analyses (Briesch, Swaminathan, Welsh, & Chafouleas, 2014). The transcribed information was from phone interviews, a lesson plan, and an observation. Data was coded and put into NVivo 11 software to obtain word frequencies which established connectivity to the research questions. Following the criterion-based sampling procedure, 10 teachers voluntarily participated in the anonymous study.

RESEARCH QUESTIONS

The research questions were the determinate factors for the investigator's pursuit of a qualitative case study approach. The overarching research question was to determine how general education and special education teachers perceive professional development preparation to differentiate instruction for general education students in inclusive classrooms.

RQ1. What are general education teachers' perceptions of professional development preparation to instruct general education students in inclusive classrooms?

RQ 2. What are special education teachers' perceptions of professional development preparation to instruct general education students in inclusive classrooms?

RESULTS

Understanding how educators perceived professional development preparedness was researchable using evidence supported through their commentary because the underlying question was "how-do-you?" The foundation of this qualitative probing was the assumption multiple truths were knowable and explorable through the subjective realities of the participants within the study (Hesse-Biber, 2017). Four themes were identified as relevant to the study. Theme 1 was professional development lacks specificity. Theme 2 was communication enhances success. Theme 3 was inclusion works when following integrated co-teaching guidelines. Theme 4 was students are misplaced in inclusion classes for several reasons. Theme 1 captured the feedback about professional development in pre-service higher education and in-service as articulated through the following commentaries.

Participant 4 expressed ideas that professional development is missing relevance stating, there is a minimum transfer between pre-service and in-service, especially when years of additional in-service training are between usage of the preservice information. Participant 4 also said:

Preservice training as relating to differentiated instruction did not exist. I had my master's in special education, but I mean, you do your fieldwork, and you're so naive that you barely know how to relate the information to the classes. I feel the more you get into it, the more you've worked in it, the more you understand the gaps missing. That's more beneficial. One semester and a couple of weeks, during undergraduate. You need to be placed with someone who is open and willing to try ideas, whether you succeed or fail. You need a teacher who is willing to let you try because you don't have that experience.

Participant 1 agreed with Participant 9 when they stated their teaching ability did not come from training because their background of growing up with a sibling under the Disabilities Act and understanding what they needed informed them. Participant 9 said PD is what the district passes on through email, paperwork, or a book they might recommend and most of what they did was learned coming from experience and more with working with other people. Participant 1 concurred with "I have had no development from the district to teach. I have had no impact from the district to teach diverse students. All research has been done on my own."

Participant 8 felt strongly that any professional development lacked specificity because the training is general and cannot be targeted to one type of learner. She mentioned the broad spectrum of autism and the potential of not seeing everyone. She stated:

I don't think (PD is) very helpful because I think the kids are so different you have to do your own research on how to teach them because they all learn so very different. You really have to (research on your own) because they tend to generalize it when there's a professional development on it. If you teach them like everyone else, then it doesn't work.

Participant 8, a SPED teacher, specifically stated, professional development is necessary for GENED teachers because of the need to focus on specific issues. She said:

Also, the general education teacher in the integrated co-teaching classrooms, need training on how to work with students with disabilities. Like a more focused training because they are not trained, they are just given a child or stuck in the classroom. There's no training for them to work with a child with autism, they think, that working with a child with autism, they're all the same kids. No, the child may be misbehaving because the lesson is too overwhelming, and the child needs to take a walk.

Participant 1 added further comments which supports the need of PD for general educators. As a SPED teacher, she acknowledged that she and her general education teacher do research on their own. My co-teacher and I, we try to attend professional development outside of our district. We are often denied because of funding. We did go to one last year, and the information we gained about helping the general education students was supportive to our classroom. Key to the success of the classroom. As Participant 2 said:

we do have a lot of students presented with ADD or ADHD and I feel like there's so much research still going on about it, like how to help those children because they're all so different from each other. Like children with autism. Participant 2 also spoke about the generalized nature of PD when it is offered by stating, the only PD available is modules, online resources, that's supposed to be interactive, but not very useful for teachers practicing inclusion for a long time. General education teachers are faced with special education students without understanding the explicit problem(s) of the child, even though an IEP is in place.

RECOMMENDATIONS

The themes from the study were expressions of teachers' perceived preparedness in inclusive environments. The word inclusion means an enclosure or annex but does not mean closed out. The pathway for inclusive education connects to federal mandates, states' appropriation of funds, instruction in institutions of higher learning, school districts and school boards, home environments, and the local building. Understanding how students with disabilities can be better served efficiently, considering the multifactual nature of inclusive education, requires additional studies using teachers' collective voices. Teachers from the study spoke about professional development preparation in terms of resources, non-specificity, time constraints, and assistance needed to navigate the classroom environment with their co-teachers. Teachers' perceived degrees of readiness and ability to differentiate instruction with explicit development, communication, and planning should transcend theoretical suppositions to include the day-to-day realities of educating diverse students. The fundamental question from both special and general educators is "how do I teach so many different students with the tools I have"? Additional studies conducted to monitor pre-service activities could encourage institutions of higher learning to divide teacher training into specific specializations. Much like medical doctors who specialize in a branch of medicine, teacher specialization would render specific pre-service training gaps. Quantitative data collected in a longitudinal study would show correlations between the pre-service teacher's choice of academic specialization and the effectiveness in the classrooms with similar populations.

Additional qualitative exploratory studies should be conducted within school districts using larger populations. Interpretations of the commentary may change the understanding of what it is like to be a teacher with or without preparation to instruct. A subsequent study could be researched quantitatively when substantial commentaries and patterns of thought identify markers that establish a cause and effect relationship. Units of specified professional development obtained could be correlated to the overall changes in the academic achievement scores of a class. Studies about planning and communication for co-teachers are important because inclusiveness is growing, even on a global level (Alsarawi, 2019). This study explored pre-service preparation for differentiating instruction to inclusion classes of both special and general education students. The President's Commission on Excellence in Special Education (2002) recommended teachers of general education to be instructed in special education. A practical follow-up study should investigate general educators' perceptions of teaching special education students, stated explicitly rather than implicitly.

CONCLUSION

Professional development for teachers was an aspect of educational planning since instructional systems began in early American history (Glatthorn, Boschee, Whithead, & Boschee, 2009). Discussions included elements of knowledge about curriculum content, PCK, learning standards, expected outcomes, and performance indicators beneficial for student academic attainment. Dewey (1938) stated schools are agents that combine experiences, interests, needs, and issues of learners to guide students toward academic advancement. Initially, the know-how of instruction begins with pre-service development of teachers because educating individuals is the primary business of colleges during undergraduate career development (McElwee et al., 2018). Subsequently, the practice of determining how in-service teachers develop professional expertise comes through the advisory roles of principals and district administrators (Alila et al., 2016). The deciding factor for academic plausibility in inclusive classrooms is how well teachers use their pre- and in-service professional development preparation to teach mixed abilities students.

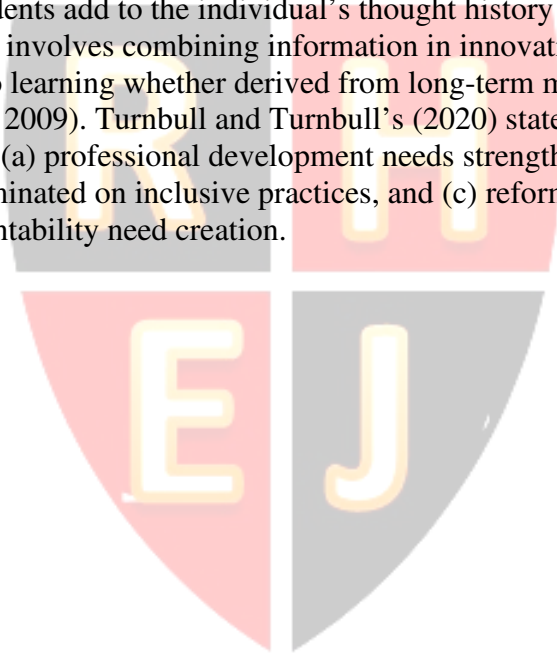
Teachers from the study perceived professional development preparedness to differentiate instruction happens through the identification of the needs of students, communication with each other in the classroom and outside, and a general understanding of what inclusion is or is not. The educators concurred professional development lacks specificity because the population of students taught is widely intellectually, emotionally, physically, and cognitively diverse. Professional development is, when made available, viewed through their eyes as a broad lens due to the generalization of needs for the inclusion population. The question becomes, how do you teach students with different types of disabilities, including sensory, autism, intellectual and physical disabilities, speech disorders, behavior, and learning issues without specifics (Chitiyo, Kumedzro, Hughes, & Ahmed, 2019). An example, emotional and behavioral disorders are represented as a broad spectrum of disabilities, generalized into an all-encompassing category during professional development according to Fuchs, Fuchs, McMaster, and Lemons, (2018) in their meta-analysis.

The elements of suitable learning pertinent to instruction in inclusive classes are supported through Social Constructivist Theory. Teachers' professional development occurs in a community and their ability to add dimension to instruction comes through experiential learning and training. The social constructivist theories are essential models to consider in inclusive environments because students master experiences and reasoning along similar lines (Xu & Shi, 2018). Teachers can influence students' experiences and broaden cognitive ability with support. Educators prepared in instructional diversity increase the academic performance of students to higher levels of task difficulty during social interactions. The theory authenticates four facets evident from the teachers in the study working to achieve academic fulfillment for their students. The components are (a) understanding the natural circumstances of the environment, including the complexity of the students (b) cooperation among all participants (co-teaching), (c) conversation about the high stakes, and (d) meaningful constructs, or a plan of action (Xu & Shi, 2018).

Xu and Shi reported that the role of teachers from a constructivist paradigm is to support students' knowledge through facilitation and corroboration learned in college. According to Jonassen (1991), in modified constructivist classrooms, teachers accomplish learning goals through questioning an issue, reviewing the specifics after dialogues, and using long-term projects which require problem-solving and discussions among the groups. As a mediator of the

learning, teachers with mixed abilities students connect prior learning to existing content through modeling, coaching, and scaffolding instruction to foster curiosity. Viewing the theory's application in inclusive classrooms is pragmatic because learning among mixed-ability students entails stratified approaches. A teacher's day-to-day role in monitoring the classroom settings includes tasks such as organizational skills, attendance, cooperation, and staying on project or process. Participants of the study expressed a lack of connection in professional development preparedness because of minimalized communication, planning efforts, and specific targeting which can be accomplished in social building sessions beginning with higher education unions.

Social constructivists consider learners' direct and indirect experiences from past and present circumstances as inspiration to perform complicated tasks because students see a relationship to the work (Xu & Shi, 2018). Teachers with pre-or in-service development assist students to build contextual meaning from the world around them and create new learning from their familiar past. Teacher preparation programs need to support a high probability and flexibility for educators to shift the mechanics of teaching (Irvine, 2019). Teachers who utilize experiences to instruct students add to the individual's thought history by providing a frame of reference because thinking involves combining information in innovative ways (Gavish, 2017). Shared information adds to learning whether derived from long-term memories or the immediate environment (Willingham, 2009). Turnbull and Turnbull's (2020) stated three main issues about inclusive education exists: (a) professional development needs strengthening, (b) research needs to be conducted and disseminated on inclusive practices, and (c) reform policies for stronger implementation and accountability need creation.



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