# Exploring Factors that Influence Beginning Teachers' Self-Efficacy to Teach in Diverse Classrooms

by

Fizza Haider
Bachelor of Science, Purdue University, USA, 2015

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We acknowledge and respect the lək̓ʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

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## Abstract

Teacher self-efficacy for teaching in diverse classrooms is an important factor in the successful implementation of inclusion. Quantitative examinations of teacher self-efficacy have found the construct to be correlated with both contextual and teacher-related factors. In-depth qualitative exploration into type, quality, and nature of experiences that shape teachers' self-efficacy beliefs is scarce. This research aimed to qualitatively examine potential sources of teacher self-efficacy and generate an explanation for the complex growth pattern it follows during the early years of practice. Seventy-eight beginning teachers across Canada (i.e., graduating teacher candidates and new teachers who are in the first three years of their practice) participated in 139 semi-structured interviews conducted over four years to address questions regarding the factors and experiences that influence their self-efficacy or confidence to teach in diverse classrooms. Ten factors which either had a positive or negative connotation emerged from a qualitative content analysis of their interviews. The Positive-Negative Experiences Balance (PNEB) model was conceptualized to understand and represent how these ten factors interactively, simultaneously, and collectively influence the development of beginning teachers' self-efficacy for inclusive practice in the initial years of their careers. Through a comparison of frequency counts of codes, it was noted that beginning teachers differentially relied on experiential factors to enhance their self-efficacy when they were graduating, or were in the first three years of their teaching. The results are discussed in light of the relevant extant research. Implications of these results for teacher education programs and school leadership are also shared.

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## Acknowledgments

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## Dedication

I dedicate my thesis to:

- The teachers who believe in including all students, regardless of whether they feel confident about teaching diverse learners, or are struggling to meet everyone's needs, but are striving to learn.
- The educators who instruct and train our teachers to help them develop their teaching skills, and build their self-efficacy.
- The principals, who with their effective leadership, support teachers in developing learning communities which are safe, welcoming, and inclusive.

# Chapter 1 Introduction

Teaching is a demanding profession especially in light of the growing movement towards inclusion; that is, teaching and providing resources and supports for all students within regular education classrooms. Canada, along with other Western countries, is at the forefront of this movement with all Canadian provinces and territories having education policies that encourage the creation of school and classroom communities where all children, with and without special education needs, can fully belong and meaningfully participate. Consequently, Canadian teachers, like their global counterparts, are increasingly having to instruct students with diverse educational needs and ensure that they are effectively contributing to their learning and growth. Teacher self-efficacy or confidence in one's ability to engage in inclusive teaching practices is an important factor in the successful implementation of inclusion (Kiel et al., 2019; Sharma et al., 2012; Zee & Koomen, 2016). The construct of self-efficacy has undergone definitional and conceptual refinements and several instruments have been developed in an effort to measure it accurately and appropriately (Gibson & Dembo, 1984; Tschannen-Moran & Hoy, 2001; Sharma et al., 2012). Measurement instruments have been designed to assess various aspects of teachers' self-efficacy with one of them being specific to the context of inclusive education (Sharma et al., 2012). However, no instrument has tapped into the sources of teachers' confidence in their abilities to provide inclusive instruction.

Initial attempts have been made by researchers to identify correlates and predictors of teachers' sense of efficacy. These have revealed factors such as gender, teaching grade level, education and training, and prior experience with individuals with special education needs as having an influence on teacher self-efficacy (Specht et al., 2016; Specht & Metsala, 2018). However, these quantitatively derived associations only present a partial picture. They inform

researchers of the existence of relationships between teacher factors, such as gender, teaching grade level, training, prior experience, and self-efficacy, and sometimes the direction of such relationships is murky because of conflicting evidence (Chao et al., 2016; Lancaster & Bain, 2007; Malinen et al., 2013; Savolainen et al., 2012; Sharma & George, 2016; Specht et al., 2016; Specht & Metsala, 2018; Woodcock et al., 2012). The existing body of research is devoid of qualitative, in-depth explorations of the particular factors and kinds of experiences that may contribute to the formation and development of teachers' self-efficacy beliefs (Wyatt, 2014). There is a gap in the scholarly literature with regard to the quality, type, and nature of such experiences. Additionally, some research indicates that self-efficacy in teachers undergoes ups and downs during the initial years of practice such that it increases through the pre-service years, declines during the first three years of service, and then rebounds and steadily grows from there on (Chan 2008; Gao & Mager, 2012; Hoy & Spero, 2005; Mintz, 2019; Tschannen-Moran & Hoy 2007). It is unclear as to what kind of experiences, successes, challenges, supports, and/or detractions lead to this uneven growth pattern.

**Paradigmatic Approach**

The present study aimed to address the gaps in the literature through a qualitative approach. Drawing from the constructivist paradigm, it relied on beginning teachers' voices from across Canada as they expressed through semi-structured interviews why they found including all students in their classrooms challenging and what experiences and resources they found helpful for bolstering their confidence for inclusive instructional practice. The constructivist world view emphasizes authenticity to participants' views about a phenomenon to the greatest extent possible and urges that meaning can be best understood by "bringing together the researchers' analysis/views and the participants experiences to narrate or explain" (Creswell &

Creswell, 2018, p. 46). The present study undertook this paradigmatic approach based on the belief that it is ultimately teachers who will create a learning environment which is welcoming to all students regardless of ability and hence their views need to be heard. For the purpose of the present study, the term 'beginning teachers' was used to collectively refer to graduating teachers and new teachers who are in the first three years of their practice. Beginning teachers were considered to be best suited for this research as they had completed their pre-service education and training and had experienced the realities inside actual classroom settings. Therefore, their accounts were based on actual experiences that they had or did not have, not simply on their perceptions and expectations. The methodological design and analytical techniques relied on for the research were rooted in respect for the belief systems, values, personal and professional experiences, and identities of participating teachers that drive their actions and their narratives, while also recognizing that the meaning derived from their conversations is a subjective interpretation and is just one of many possible ways of understanding what gives them confidence to engage in inclusive teaching practices, and what detracts from that confidence.

## Researcher's Perspective

My research interest in teacher self-efficacy for inclusive practice was driven by my identities as a student with different learning needs and as an educator seeking to bring about change. Both of these identities define me, intersect in complex ways to shape my perspectives, and filter into my work as a researcher.

### *A Student with Different Learning Needs*

I am a blind individual who was born and raised in Pakistan. Despite having a visual disability, I was always part of the general education system during my schooling in Pakistan. I attended regular schools in a country which lacked educational policies and regulations that

mandate the inclusion of all students in general education classrooms regardless of their learning needs. In the absence of such policies, studying in the general education system alongside my peers without disabilities had its challenges. The teachers who taught me had neither the resources, nor the training to instruct students with diverse learning needs. They were unprepared to modify their teaching approaches or adapt the learning activities they designed to allow me to participate in them meaningfully. During my elementary and secondary school years, I experienced firsthand that societal beliefs are reiterated in our classrooms. It is there that the beliefs are translated into action and reinforced by our educators. The teachers' own beliefs and attitudes towards students with different learning needs determine how they treat those students. Their classroom decisions shape the students' future experiences, opportunities and perceptions of themselves and others. In my own case, because it was not usual for a student with extreme visual difficulties to attend a regular school, every day I was reminded through the verbal and non-verbal messages in the classrooms I attended that I did not belong. My teachers believed that I was not their responsibility. They felt that if I had chosen to attend a regular school despite my learning requirements being different from others, I had to figure out myself how to keep pace.

***An Educator Seeking to Bring about Change***

Due to my educational experiences, I started to realize that there was a dire need for significant change in the way we view and treat students with exceptional learning needs, and I needed to play my part in bringing about that change. I decided that whenever I have the opportunity, I was going to initiate the effort to alter the way students with disabilities are perceived and treated in educational institutions. I knew that the path was going to be difficult as it would involve challenging longstanding beliefs, calling out prejudice, and standing up to those who had in some way played a part in stigmatizing students with disabilities. When I began

teaching a general education classroom in an elementary school in Pakistan many years later in 2008, I knew what not to do as a teacher to ensure that all my students felt they were welcomed in my classroom. I also came face-to-face with the demands of having students with a very wide range of abilities and learning needs together in one learning environment. Further, because of the global efforts towards inclusive education, the education system in Pakistan had also moved from segregation of students with disabilities to a somewhat integrated system by that time and some rudimentary policies for inclusion of persons with disabilities had been introduced. Due to such policies, students with special needs had been returned to general education classrooms, but to instruction models which had largely remained unchanged, school systems which were under resourced, and teachers who were not ready to accept diverse students. The result was educators who felt frustrated, overworked, and ill-equipped to handle the learning diversity in their classrooms and students who still struggled because the instructional materials and strategies did not meet their needs. This experience gave me a chance to take a closer look at the steps that needed to be taken to implement inclusive practices more effectively. Through my conversations with my teacher colleagues and my personal reflections on my teaching practice at this time, I understood that for successful inclusion of students with disabilities, we needed to create a teaching force which feels supported, prepared and efficacious to respond to learner diversity inside the classroom.

### *A Researcher on a Quest*

My challenges as a student who had needs that were different from others, my struggles as a blind educator who faced access challenges and had limited resources and training to teach diverse students, and my interactions with fellow educators who found it overwhelming to instruct and include a variety of learners played a vital part in shaping my identity as a researcher

on the quest to identify and explore the factors that contribute to teacher self-efficacy for inclusive practice. My aim was to explore the experiences, both personal and professional, that teachers find helpful in developing competence and confidence for teaching in diverse classrooms. As I embarked on this investigation, I understood that my passion for inclusive education and ability to relate to the emotions of students with disabilities and the barriers they experience to learning resulted partly from my own membership in that group. However, I also realized how frightening and intimidating the prospect of inclusive education could be to teachers who have limited exposure to persons with disabilities and who may ascribe to long-standing, deficit-based beliefs about them. Therefore, I believed that it was important to hear the voices of teachers as they express why they find including all students in their classrooms challenging and what experiences and resources they find helpful for bolstering their confidence for inclusive instructional practice. I believed that hearing their stories and perspectives was important, since it is ultimately the teachers who are responsible for creating an inclusive learning environment for all students. In doing so, I deemed it important to take a social constructivist perspective and be mindful of the personal and professional experiences, backgrounds, and belief systems of participating teachers and respect that their own identities and values would have driven their narratives as I conducted my research on teacher self-efficacy and the factors that promote or undermine it. I also recognized that the meaning that I make of their accounts would be my subjective interpretation and is one of several ways of understanding what contributes as well as undermines their confidence to engage in inclusive teaching practices.

The present study has meaning for me as a student with a disability as it contributes to the development of more efficacious and well-prepared teachers who are better able to instruct

diverse learners; thus, improving the overall quality of the students' educational experience. Further, it has value for me as an educator as it helps me identify professional development opportunities and types of experiences I should seek out to enhance my inclusive instructional skills.

In the following chapters of my thesis, I describe my journey of exploration of factors that influence beginning teacher's self-efficacy to teach in diverse classrooms. I begin by reviewing the extant literature on teacher self-efficacy in the next chapter, focusing specifically on teachers' confidence for inclusive practice. I highlight what we already know while also identifying gaps in the research. I then state the research questions that I set out to answer through the present study. In the third chapter, I outline the procedures I followed to address my research questions. I describe in detail, the participant sample, the ethical considerations, the data collection instruments, and the analytical techniques that were employed in my study. I then share my findings from the coding of the interviews and the categorization of the emerging codes into factors in the fourth chapter. I explain my conceptualization of the PNEB model, to demonstrate how the ten factors that emerged from my analysis interact. This is followed by a description of each of the ten factors, including quotes from participants which illustrate it. The fifth chapter contains a discussion of my results and their implications for teacher education programs and school leaders, both of which can play a significant role in enhancing teachers' self-efficacy for inclusive practice. Limitations of the present study and directions for future research are also outlined in this chapter. I conclude my thesis with a summary of the key take-aways, and recommendations for various stakeholders.

# Chapter 2 Literature Review

## Inclusive Education Policies in Canada

Inclusion or inclusive education is seeing worldwide growth with global educational policies increasingly focussing on ensuring that students with special education needs receive equitable opportunities to learn and participate in meaningful ways in mainstream schools (Blanton & Pugach, 2017; Miesera & Gebhardt, 2018; Round et al., 2016; Rakap et al., 2017). Canada, where education is provincially regulated, is no exception to this movement. Provincial ministries of education and territorial governments in Canada are exclusively responsible for developing policies which create standards that guide school districts and schools in establishing rules, regulations, and procedures around educational programming and delivery. All provincial and territorial ministries strongly recommend schools to welcome and value all students, regardless of their learning differences, to the greatest extent possible. British Columbia's Special Education policy, for instance, centres on the principle that "all students are entitled to equitable access to learning, achievement and the pursuit of excellence in all aspects of their educational programs" (British Columbia Ministry of Education, 2016, p. 2). The policy further emphasizes that inclusion should not just be limited to mere placement, but rather should extend to promote meaningful participation and peer interactions. Quebec's Policy on Special Education, which was adopted almost two decades ago, centers on the principle of

> Placing the organization of educational services at the service of students with special needs by basing it on the individual evaluation of their abilities, and needs, by ensuring that these services are provided in the most natural environment for the students, as close as possible to their place of residence, and by favouring the students' integration into regular classes. (Québec Ministère de l'Éducation, 1999, p. 7)

It further emphasizes that adapting educational services for students with special needs should be a priority for all stakeholders working with those students. The policy also promotes the development of true educational communities involving the child, the parents, outside partners and community organizations. In New Brunswick, public schools are urged to be inclusive, shared learning spaces where each student can fully participate and thrive. The province's inclusive education policy stresses the need for creating learning environments "which are appropriate for the student's age and grade, shared with peers in their neighbourhood school, and respect learning styles, needs, and strengths" (New Brunswick Department of Education and Early Childhood Development, 2013, p. 5). Similarly, in Saskatchewan, the Ministry of Education emphasizes that "Inclusive education creates environments where students feel accepted, valued, confident and safe to engage in learning and where school personnel, families, students and community agencies form collaborative teams that are committed to a shared vision to support students in reaching their full potential" (Saskatchewan Ministry of Education, 2017, p. 2). Ontario too, envisions inclusive schools as places where "all students, parents, and other members of the school community are welcomed and respected" and "every student is supported and inspired to succeed in a culture of high expectations for learning; and where all staff and students value diversity and demonstrate respect for others and a commitment to establishing a just, caring society" (Ontario Ministry of Education, 2016, p. 17). According to Standards for Special Education Alberta (2004), "inclusion, by definition, refers not merely to setting but to specially designed instruction and support for students with special education needs in regular classrooms and neighbourhood schools" (p. 1). To facilitate Alberta students in the achievement of learning goals,

> school authorities must ensure that all children and students (Kindergarten to Grade 12), regardless of race, religious belief, colour, gender, gender identity, gender expression, physical disability, mental disability, family status or sexual orientation, or any other factor(s), have access to meaningful and relevant learning experiences. (Alberta Education, 2019, p. 25)

The Department of Education of Newfoundland and Labrador (2011) defines inclusive education as

> the right of all students to attend their neighbourhood schools with their peers, and to receive appropriate and quality programming. . .. Within a school community, all members are encouraged to share responsibility for the learning and well-being of all students. (p. 5)

Likewise, Nova Scotia's inclusive education policy describes inclusive education as

> a commitment to ensuring a high-quality, culturally and linguistically responsive and equitable education to support the well-being and achievement of every student. All students should feel that they belong in an inclusive school—accepted, safe, and valued—so they can best learn and succeed. (Nova Scotia Department of Education and Early Childhood Development, 2019, p. 1)

The policy further asserts that successful inclusive education requires "safe, caring schools that welcome parents/guardians, families, and include the broader community as key partners in education" (Nova Scotia Department of Education and Early Childhood Development, 2019, p. 1). It is clear that in Canada, even though the policies vary in terms of specificity with regard to inclusion, the goal nation-wide is to create and nurture educational communities where every child, with or without special educational needs, feels they belong and can achieve success.

**Theoretical Perspective: Social Relational Approach**

The language that various provincial educational policies in Canada adopt and the objectives that they are trying to achieve in terms of inclusion of students with special education needs appears to be based on a social-relational understanding of disability. This perspective on disability, outlined by Thomas (1999, 2004), asserts that disability is a combined product of an individual's reduced function resulting from a physical or mental impairment and barriers or restrictions imposed on that individual by society which labels them as impaired. This definition of disability neither considers it to be solely a deficit inherent to the individual which needs to be fixed (as in the medical model of disability), nor conceptualizes it as an experience which is entirely socially constructed (as in the social model). On the contrary, it recognizes disablement as occurring collectively from barriers to doing, barriers to being, and impairment effects (Cologon, 2016). The social-relational view of disability emphasizes that individuals who have a physical, mental, or intellectual impairment feel enabled or disabled to various degrees in any given situation based on the attitudes or interactions of others in their environment (Cologon, 2016). For an educational context, this would suggest that the varying learning needs of students are not just influenced by the limitations resulting from physical, mental, or intellectual impairments, but also by potentially negative attitudes and beliefs of their educators and barriers in the educational communities that they are part of. Consequently, it means that development of welcoming inclusive learning environments in which teachers hold high expectations of all students and believe that all students are their responsibility is essential for mitigating the learning challenges of students with special educational needs. Reindal (2010) proposes taking a social-relational approach while designing learning environments to ensure that exclusionary instructional practices and structural barriers to education can be recognized and avoided. This

would ensure that the educational environments that are formed cater to students with a range of abilities. Educational policies in all Canadian provinces and territories reflect ascription to this view for meeting the diverse educational needs of all students. They focus on the cultivation of school communities where every student, with or without a disability, feels valued, respected, and welcomed, and has the opportunity to learn alongside their peers to the maximum extent possible. The development of such communities is dependent on teachers because they are key players in shaping the learning environments as well as the experiences that students have in those environments.

**The Prominence of Teachers in Inclusive Education**

The increasing global movement towards inclusion, which is also reflected in Canadian educational systems, is based on the premise that it benefits all students and improves academic and social outcomes for them. There is compelling evidence for the positive effects of inclusive education on academic achievement, social-emotional skills, school engagement, peer acceptance, and prosocial behaviours for both students with and without special education needs (Evins, 2015; Lindsay et al., 2014; Rea et al., 2002; Kalambouka et al., 2007; Szumski et al., 2017). It is no surprise then that the inclusive education movement has been steadily gaining momentum.

Teachers are at the heart of this process. They are responsible for designing classroom communities where diverse needs are recognized and appreciated and addressed through the use of inclusive instructional practices. Scholars have found that the development of teaching practices is guided by teachers' attitudes and belief systems. Teachers who think that disability is a function of barriers posed by the environment rather than a deficit inherent to the student and who have had prior experience with students who have special educational needs have more

favourable views about inclusion (Avramidis & Norwich, 2002; Malinen et al., 2013). Vaz and colleagues (2015) also discovered that teachers who feel confident about their ability to teach students with disabilities and have received training in doing so express more positive attitudes towards including them. Further, teachers who believe that the learning of all students, including those with special needs, is their responsibility and consider ability to be a malleable trait are more likely to adopt inclusive teaching strategies which benefit all students (Jordan et al., 2009; Pas et al., 2012).

Although educators are generally supportive of inclusion, they question its full implementation. Even though teachers endorse the philosophy of inclusion, they are unaccepting of including students with severe disabilities inside their own classrooms and voice concerns regarding adoption of inclusive practices due to the scarcity of support and resources to adequately teach such students (Avramidis & Norvich, 2002; Forlin & Chambers, 2011; Forlin & Cooper, 2013). Teachers also report a lack of preparedness and confidence in meeting diverse learning needs inside their classrooms (MacBeath et al., 2006; OECD, 2010; Specht et al., 2016). These findings are troubling considering the increasing number of students with special educational needs who are being educated in mainstream schools and receiving instruction from regular education teachers. More than 80% of Canadian students with special educational needs spend at least half of their school day in regular education classrooms and it is, therefore, important for teachers to feel confident in their abilities to meaningfully contribute to the learning of these students (Sharma et al., 2012; Specht et al., 2016).

**The Powerful Influence of Teacher Self-Efficacy**

Teacher self-efficacy, or their confidence in their abilities, has emerged as a powerful factor influencing the success of inclusive education (Bandura, 1997; Tschannen-Moran & Hoy,

2001, 2007; Tschannen-Moran et al., 1998). Self-efficacy refers to "the belief in one's agentive capabilities, that one can produce given levels of attainment" (Bandura, 1997, p. 382). In an educational context, the construct of teacher self-efficacy represents teachers' perceptions of their ability to undertake a variety of teaching tasks (Mintz, 2019). Klassen et al. (2011) define teacher self-efficacy as "the confidence teachers hold about their individual and collective capability to influence student learning" (p. 21). Likewise, Zee and Koomen (2016) refer to self-efficacy beliefs as "teachers' self-referent judgments of capability" (p. 981) or "confidence in their abilities" (p. 1005). The terms self-efficacy and confidence will be used interchangeably in this thesis when referring to teachers' self-efficacy for inclusive practice.

High levels of self-efficacy in teachers have benefits for teachers and students alike. Tschannen-Moran and Hoy (2001) discussed the positive effects of high teacher efficacy while making a case for developing an appropriate measurement instrument to capture this multifaceted construct. Additionally, in their synthesis of forty years of self-efficacy research, Zee and Koomen (2016) concluded that highly efficacious teachers create learning environments which are of superior quality and in which students are more engaged and perform better both academically and behaviourally. They further established that teachers' self-efficacy is associated with gains in students' self-efficacy and motivation. In their review of 165 relevant articles, the researchers also found self-efficacy to be related with improved outcomes for teachers as reflected by higher job satisfaction, greater commitment, lower levels of stress and reduced feelings of burnout. Weber and Greiner (2019) also found higher levels of self-efficacy to be associated with greater professional satisfaction among pre-service teachers.

Teacher self-efficacy contributes to the effective implementation of inclusive educational practices. Kiel et al. (2019) surveyed 471 teachers across 49 different inclusive primary and

secondary schools in Germany asking them to rate their self-efficacy on a multidimensional scale measuring three dimensions of the construct, namely, inclusive curriculum development, inclusive classroom management and inclusive cooperation. Their findings revealed that teachers who considered themselves to be highly efficacious in the implementation of inclusive education, particularly in terms of inclusive curriculum development, reported implementing inclusive practices to the greatest extent. Similarly, a positive correlation between self-efficacy and reported inclusive teaching practices was also discovered by Wilson et al. (2020) in their sample of 148 Scottish primary school teachers. From among the three dimensions of teacher self-efficacy (i.e., classroom management, instructional strategies, and student engagement), efficacy for instructional strategies was most closely related to adoption of inclusive classroom practices. Teachers who have high self-efficacy in inclusive practices believe that they can successfully teach students with special educational needs in a regular classroom (Sharma et al., 2012). They are more innovative and open to experimenting with new instructional strategies to meet a variety of learning needs and they are likely to show greater persistence while working with students who are challenging (Gibson & Dembo, 1984; Sharma & George, 2016; Zee & Koomen, 2016). Sharma and colleagues (2018) reported attitudes and teacher self-efficacy to be the strongest predictors of both Australian and Italian teachers' intentions to include students with disabilities in regular classrooms. In another study investigating how teachers' self-reported attitudes, self-efficacy and concerns about inclusion related to their actual classroom practices, Sharma and Sokal (2015) found a small, but positive correlation between efficacy to implement inclusive practices and actual inclusive practices observed inside the classroom. They conducted classroom observations with five general education teachers in Winnipeg, Manitoba out of a larger sample of 131 teachers from whom they had previously collected survey data to see how

their inclusion-related attitudes and self-efficacy translated into their teaching practice. Their findings revealed that teachers who were more inclusive in their practices had higher efficacy, held more positive attitudes, and expressed fewer concerns about inclusion.

**Conceptualization and Measurement of Teacher Self-Efficacy**

Convincing evidence linking teacher self-efficacy to a variety of positive teacher-related and student-related outcomes inspired researchers to fine-tune the construct of self-efficacy and to work on developing measurement instruments that could fully capture it. Teachers' self-efficacy research originated from the compelling findings of the studies conducted by the RAND Corporation in the 1970s. These studies involved the development of two survey items that tapped into teachers' beliefs in their ability to influence student achievement (Tschannen- Moran et al. 1998). Gibson and Dembo (1984) built on this early work and conceptualized teacher self-efficacy as comprising two dimensions, namely personal teacher efficacy (PTE) and general teacher efficacy (GTE). Personal teacher efficacy described teachers' beliefs in their own ability to influence students' learning and behaviours; whereas general teacher efficacy referred to their beliefs in the effectiveness of the teaching profession in general to bring about gains in students' performance in light of several environmental constraints.

The measurement instrument that Gibson and Dembo designed for assessing teacher efficacy, although initially popular, was criticized and challenged for having limited reliability and construct validity and researchers debated the meaning, clarity, and stability of their two-factor conceptualization of the construct (Henson et al., 2001; Tschannen-Moran & Hoy, 2001). Tschannen-Moran and Hoy (2001) particularly questioned the general teacher efficacy domain of the scale which heavily focused on the external and contextual factors that limit student achievement rather than highlighting teachers' own confidence in their abilities to influence such

outcomes. They further argued that teacher self-efficacy is context- and task-specific and hence should not be measured globally the way Gibson and Dembo's (1984) scale assesses it. They also cautioned against designing too specific an instrument claiming that such a measure would only have limited external validity and practical utility. In response to their own critique, Tschannen-Moran and Hoy (2001) developed a measurement scale that aimed to examine teacher self-efficacy at the optimal level of specificity. Their scale, which has both a short and long form, comprised three factors, efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management, each capturing an important component of teaching. Since it assessed teachers' confidence to perform a wider range of teaching tasks and had adequate reliability and validity, it was considered to be a more effective tool for measuring teacher self-efficacy and was frequently used in later studies (e.g., Chao et al., 2017; Schwab, 2019). However, out of the concerns that teacher efficacy beliefs may not always be transferrable across contexts there arose a need for constructing a measure that specifically assessed teachers' efficacy beliefs for teaching in inclusive settings. Teaching in diverse classrooms requires specific skills, such as ability to collaborate with parents, staff, administrators, and paraprofessionals; ability to employ inclusive instructional strategies (such as differentiated instruction, peer tutoring, cooperative learning); ability to assess for identification of learning challenges; and ability to design and implement curricular modifications and accommodations for students with different ability levels (Sharma & George, 2016). An instrument that effectively measured teachers' self-efficacy for such skills was required. Sharma et al. (2012) recognized this need and took up the task of developing a new scale which exclusively measured teachers' confidence for inclusive practice. The scale that they developed was tested and validated on 607 participating pre-service teachers selected from four countries, Australia,

Canada, Hong Kong, and India and was found to have good reliability and validity. A factor analysis was conducted on the responses provided by the participants and 3 domains of efficacy emerged, namely, efficacy in using inclusive instruction, efficacy in collaboration, and efficacy in managing disruptive behaviours (with alpha coefficients ranging from 0.85 to 0.93). Globally, researchers have used the scale extensively since its creation due to its utility and application to inclusive settings and various studies have provided support for the three-dimensional structure of teacher self-efficacy in the context of inclusive practice (Alnahdi, 2019; Hosford & O'Sullivan, 2016; Malinen et al., 2013; Ozokcu, 2018; Specht et al., 2016; Specht & Metsala, 2018).

## Factors Influencing Teacher Self-Efficacy

With improvements in measurement instruments and an increased interest in teacher self-efficacy for inclusive education, scholars began to investigate teacher characteristics as well as potential contextual variables which might influence the construct. Several correlates began to emerge, both at the contextual and the individual levels.

### *Contextual Variables*

Global research findings reveal that cultural context plays a vital role in shaping teachers' self-efficacy beliefs. Sharma et al. (2018), for instance, found differences in Australian and Italian teachers self-reported self-efficacy beliefs for teaching in inclusive classrooms. Similarly, a comparison of South African and Finnish teachers' attitudes and self-efficacy conducted by Sovalainen et al. (2012) also demonstrated that teachers' self-efficacy beliefs varied as a function of cultural context. Although teachers from both countries in their sample felt confident about teaching in inclusive classrooms, South African teachers expressed greater efficacy in behaviour management, whereas Finnish teachers felt more confident about collaboration in inclusive

settings. It can be expected that the differential histories of inclusive education, differing relevant laws and policies, and variation in availability of resources to support inclusion of students with disabilities in mainstream schools in the various countries may be contributing to the differences in teachers sense of confidence to exercise inclusive practices.

Contextual influences on teacher self-efficacy have also been observed at the school level. Hosford and O'Sullivan (2016), for example, found that teachers who regarded their school climate as supportive, particularly in terms of provision of adequate resources and collaborative structures, felt more efficacious about teaching in inclusive classrooms. This, in turn, led them to having greater confidence in managing challenging behaviours inside the classrooms. Various aspects of the school environment, such as collective efficacy, teacher affiliation, and academic emphasis have been observed to have an impact on teachers' belief in their ability to provide instruction to children with disabilities (Wilson et al., 2020). Wilson and colleagues (2020) reported collective efficacy, which is teachers' perception of the capability of their school staff as a whole, to be a strong predictor of teacher self-efficacy. They quantitatively assessed all three dimensions of teacher self-efficacy in regular primary school teachers, including efficacy for classroom management, instructional strategies, and student engagement. Their study revealed all three dimensions to be influenced by collective efficacy. They further discovered that instructional strategies efficacy of teachers was positively predicted by academic emphasis (that is, the school's focus on achievement). Curiously, student engagement efficacy was negatively predicted by teacher affiliation (i.e., communal relations among teachers). A mediating role of teacher self-efficacy on the relationship between perceptions of the school climate and reported inclusive teaching behaviours was also noted by the researchers. Teachers

who considered the school environment in which they worked to be supportive expressed greater confidence in their teaching abilities and reported using more inclusive instructional practices.

### *Teacher-Related Variables*

Teacher-related attitudinal and demographic characteristics, such as gender, teaching grade level, years of teacher education, and teaching experience are another category of variables that researchers have examined with regard to self-efficacy beliefs. Strong correlations have been observed between attitudes towards inclusion and teachers' self-efficacy to teach in inclusive settings (Miesera & Gebhardt, 2018; Sharma et al., 2018; Savolainen et al., 2012). Even though female teachers report more positive inclusion-related attitudes, male teachers have generally been found to express greater efficacy in managing behaviours in inclusive classrooms (Specht et al., 2016; Specht & Metsala, 2018). Elementary-level teachers have shown higher efficacy to collaborate for inclusive education as compared to secondary teachers (Specht et al., 2016). Specht and Metsala (2018) investigated this relationship further by gathering self-report data on self-efficacy and inclusion-related beliefs from a large sample of 1026 Canadian preservice teachers. They concluded that inclusion-related beliefs differentially impacted elementary and secondary pre-service teachers' efficacy for inclusion. At the elementary level, pre-service teachers who had more student-centered beliefs and those who believed that external factors such as grades motivated students felt more efficacious to collaborate and manage student behaviour. At the secondary level, pre-service teachers who believed ability to be a malleable trait felt more confident in their ability to collaborate and those who considered students learning and motivation to be environmentally impacted felt more capable in managing behaviour.

## Potential Sources of Teacher Self-Efficacy

Research examining predictors of teacher self-efficacy is needed to shed light on the sources of teachers' confidence and competence for inclusive practices, as they have not been sufficiently explored. Bandura (1977) theorized four different sources that contribute to the development of self-efficacy namely, mastery experiences, vicarious experiences, social persuasion, and somatic and emotional states. Prior experience with people with disabilities and teacher education and training are two factors highlighted in existing teacher self-efficacy literature that require further exploration to determine if they could be categorized as potential sources of confidence for teachers.

### *Prior Experience with People with Disabilities*

Strong positive associations have been observed between prior experience with people with disabilities and teachers' self-efficacy to teach in inclusive settings where students with and without exceptionalities learn together (Ozokcu, 2018; Specht et al., 2016). Previous experience of both a personal and professional nature has been seen to be beneficial in enhancing pre-service teachers' self-efficacy beliefs (Loreman et al., 2013; Specht & Metsala, 2018). Such first-hand experiences can be classified as mastery experiences under Bandura's theory (1977). Mastery experiences such as direct experience teaching students with disabilities may be a stronger source of confidence for teachers who have been teaching for a longer time and have an opportunity to gain such experiences. On the contrary, neophyte teachers may rely on other sources of self-efficacy due to their limited professional instructional experience. Malinen et al. (2013) found support for this assumption in their research with teachers from Finland, China, and South Africa. They determined that experience teaching students with disabilities had strong predictive value for teacher self-efficacy especially for more experienced teachers. These

findings lent credence to the idea that mastery experiences contribute to teachers increased sense of efficacy.

Interestingly, evidence refuting this assumption has also surfaced (Chao et al., 2016; Forlin & Chambers, 2011; Savolainen et al., 2012). Chao et al. (2016) found that prior teaching experience with students with special educational needs lowered teachers' self-efficacy for inclusive education. These results were intriguing and required deeper probing. It may be the case that practical experience in teaching students with special educational needs provides teachers with a more realistic sense of the kind of effort and commitment inclusive education entails and that, in turn, reduces their confidence in their ability to meet the needs of diverse learners (Chao et al., 2016; Sharma & George, 2016). It was, therefore, worthwhile to have teachers describe their classroom experiences in greater detail to provide insight into the nature of encounters with students which may potentially have led to a decline in their self-efficacy. Peebles and Mendaglio (2014) determined that as pre-service teachers spent more time working individually or in small groups with students with special educational needs, and less time engaging in whole-class instruction or observation, they experienced greater increases in their self-efficacy to provide instruction to students with diverse learning needs. It appeared from these results that the quality and amount of direct experience that teachers had with students with special needs mattered for their self-efficacy. It was unclear if factors like the level of support that teachers receive in the classroom played a part in the quality of their experiences and in turn influenced their level of self-efficacy. hence it was an area which warranted more exploration possibly through qualitative methods.

### *Teacher Education and Training*

Investigation into the factors that influence teachers' confidence in their instructional abilities for inclusive practices has also informed faculties of education regarding the changes that need to be made to teacher education programs (de Boer et al., 2011; Forlin et al., 2009). Teacher education programs have been responding to the changing educational landscape and increasingly including inclusion-related content in an effort to enhance teachers' efficacy to meet diverse learning needs of students (Blanton & Pugach, 2017; Cochran-Smith et al., 2016). Evidence suggesting that pre-service teachers who learn inclusion-related content and engage in relevant field experience during their teacher training programs feel more efficacious and better prepared to teach in inclusive classrooms has also come to the forefront (Rakap et al., 2017; Robinson, 2017; Zagona et al., 2017). Knowledge and training in special education allow pre-service teachers to feel more confident about providing instruction, managing behaviour, and collaborating in inclusive classrooms (Loreman et al., 2013; Peebles & Mendaglio, 2014). Peebles and Mendaglio (2014) observed gains in pre-service teachers' self-efficacy after they had been exposed to an inclusion course and field experience complementing it. The researchers assessed teacher candidates' self-efficacy at three different time points: at the start of the coursework, after the coursework, and after the field experience. It was noted that efficacy for inclusive instruction increased more after the coursework; whereas efficacy for behaviour management raised considerably after the field experience, indicating that the nature of the learning experiences differentially impacted the various dimensions of self-efficacy. Interviews with participating teacher candidates would shed light on the nature of experiences that they considered supportive in raising their confidence for the various responsibilities they are required to perform in inclusive classrooms.

Relevant education and training appear to be helpful in raising teachers' confidence in their abilities mainly when they extend over a longer period of time allowing for greater understanding and practice. Specht et al. (2016) found support for this in their study with Canadian pre-service teachers, determining that teacher candidates enrolled in programs of longer duration expressed greater efficacy and preparedness for teaching in and managing inclusive classrooms. Furthermore, pre-service teachers from Specht and colleagues' (2016) sample who engaged in practicum placements extending beyond one month felt more confident and capable with regard to inclusive practices. Specht and Metsala (2018) also reported that preservice teachers who participated in longer practicums felt more efficacious about collaborating with various stakeholders while serving diverse learners.

There remains conflicting evidence regarding what constitutes an appropriate length of training and experience for fostering self-efficacy. Woodcock et al. (2012) found no increases in participating pre-service teachers' self-efficacy after engaging in a five-month inclusion course including both subject matter and practicum components. Moreover, there was no reduction in their concerns about workload, resources, acceptance, and academic standards associated with inclusive education after attending the course and taking part in the coursework. On the contrary, pre-service teachers participating in the Lancaster and Bain (2007) study reported feeling more efficacious about future interactions with students with disabilities after taking a 13-week course which included a field placement component. These findings pointed out that courses of longer duration did not necessarily ensure increases in teacher self-efficacy. More needed to be understood about the quality of experiences that preservice teachers had during their enrolment in these courses to determine what made them more or less effective. Interviews with teachers would serve as an informative tool in helping to understand what element of their educational

and training experiences they found more impactful in terms of building their sense of confidence for teaching in inclusive classrooms since merely duration of the course has produced mixed results.

**The Changing Levels of Teacher Self-Efficacy in Early Years of Practice**

Teacher self-efficacy appears to grow or decline during the early years of practice as a function of the varying experiences teachers engage in (Gao & Mager, 2011). Gokdere (2012) developed and administered a measurement instrument to gather quantitative data to compare the attitudes, concerns, and interaction levels of teacher candidates and teachers towards inclusive education. He found teacher candidates to have more favourable attitudes towards inclusion and more positive interactions with students with disabilities as compared to practicing teachers, while both groups of teachers expressed low confidence for teaching in inclusive settings. He posited that the discrepant work-related experiences of teachers and teacher candidates may have contributed to the low confidence for inclusive education in each group. It is possible that the lack of practical mastery experiences may have contributed to teacher candidates feeling less confident to teach in inclusive settings; whereas the daily classroom issues and workload that practicing teachers experience may have been a factor in them feeling less confident in their abilities to provide instruction to students in inclusive classrooms. Hoy and Spero (2005) longitudinally followed a group of pre-service teachers as they progressed through their teacher education program and transitioned into the beginning teacher stage of their careers. They used three quantitative assessment tools to track changes in teachers' self-efficacy during this time and investigated potential sources of efficacy during the initial teaching year. Participants were assessed at three time points: at the beginning of their teaching education program, at the end of their student teaching, and after their first year of employment as a teacher. They were also asked

to rate different kinds of resources and support that they received during their first year of teaching to explore if this was a potential source of efficacy. The researchers noted that the self-efficacy of preservice teachers had significantly increased by the conclusion of their teacher education program but dipped in their initial year of teaching practice. This decline was related to the level of support the teachers perceived they had received. Mintz (2019) discussed the likelihood of beginning teachers experiencing a decline in their self-efficacy during the early years of their practice as a result of the multiple challenges that they face when they transition from the pre-service to the in-service phase. Although he did not find evidence for this decline in his quantitative investigation of self-efficacy of teachers as they transitioned from the pre-service to the in-service stage, he did observe that novice teachers were non-responsive to "enriched induction on inclusion" which was intended to boost their self-efficacy for teaching students with special educational needs. These results may be supportive of a levelling off of teacher self-efficacy during the initial year of practice.

Some cross-sectional studies comparing self-efficacy in beginning and experienced teachers suggest that self-efficacy rebounds after teachers have gained around three years of experience (Chan, 2008; Tschannen-Moran & Hoy, 2007). The changes that teachers experience in the early years of practice seem to present a shock to them as they do not meet their expectations of real classroom experiences; however, it also appears that this initial shock wears off after a few years of experience (Mintz, 2019). It was, therefore, worth investigating more deeply what successes and failures teachers have during these beginning teaching years which may lead to these changing levels of confidence that they have regarding their instructional abilities.

Research being conducted to examine teacher self-efficacy has increased considerably (Klassen et al., 2011), as a result of its significance in the effective implementation of inclusive education. However, there remains very limited research focused on the sources of teacher self-efficacy (Wyatt, 2014). Curious, and sometimes conflicting, findings about the impact of teacher training and prior experience with people with disabilities (Chao et al., 2016; Lancaster & Bain, 2007; Malinen et al., 2013; Savolainen et al., 2012; Specht et al., 2016; Specht & Metsala, 2018; Woodcock et al., 2012) establish the need to probe further, in order to identify what specific aspects of such experiences foster teachers' confidence for teaching in inclusive classrooms and which ones undermine it. Furthermore, the majority of reported research in the scholarly literature on teacher self-efficacy that guides understanding about its antecedents and correlates is quantitative in nature, preventing researchers from making fully informed inferences (Labone, 2004; Wyatt, 2014). The findings from this research heavily rely on teachers' self-reported efficacy beliefs measured on survey instruments which are largely devoid of explanatory perspectives. There is a dearth of qualitative exploration of factors that contribute to the development of, changes in, and sustenance of self-efficacy in teachers. As Wyatt (2014) argued, quantitative data collection and analysis using well-designed instruments and sound statistical techniques can be a useful initial step in research on teacher self-efficacy. However, it is essential to extend the research using qualitative methodology to make meaning of the numerical data and correlations and give them greater practical value. Several researchers who have contributed to the teacher self-efficacy research literature through their quantitative studies have acknowledged the limitations of using self-report questionnaires for evaluating the construct. Further, they have agreed that qualitative investigations in the form of case studies, interviews, focus groups or observations with teachers would be a logical future direction for the research to

move in (Avramidis & Norwich, 2002; Ozokcu, 2018; Sharma et al. 2012; Specht et al., 2016). Since some research points towards teacher self-efficacy following a complex trajectory particularly during the early years of teaching practice (Chan, 2008; DeSimone & Parmar, 2006; Hoy & Spero, 2005; Tschannen-Moran & Hoy, 2007), interviews needed to be conducted with beginning teachers to identify the factors, such as their training, actual in-class experiences, and other characteristics in order to tease apart what elements positively or negatively impacted their self-efficacy (Specht et al., 2016).

**Research Questions**

This study employed qualitative research methodology in an effort to address these gaps in the research. Semi-structured interviews with beginning teachers from across Canada (i.e., graduating teacher candidates and teachers who were in their initial years of practice) were conducted in order to answer questions regarding the factors that contribute to or undermine beginning teachers' sense of efficacy or confidence to teach in inclusive classrooms. In doing so, the research aimed to draw inferences from teachers' responses to explain the changing levels of teacher self-efficacy that have been identified in the extant research. As educational policies are provincially determined in Canada, participants were drawn from across the country in order to obtain a representative sample. This was done with the intent that it may illuminate any similarities or differences in teachers' experiences resulting from their provincial contexts. Beginning teachers were an appropriate group of individuals to include in this research since they had already undertaken relevant education and training and had also practically experienced the classroom environment and its daily rigour. Hence, they were in a position to comment on pre-service experiences which they found useful or counterproductive, and also share accounts of successes or challenges they think they had during their early in-service years. Their stories

provided an enriched understanding of how experiences differentially shape self-efficacy from pre-service to the in-service phase and provided much needed insight into the quality and type of experiences that played a role in the development of teachers' self-efficacy for teaching in inclusive classrooms. The current research aimed to answer the following questions:

1. What factors influence beginning teachers' self-efficacy (confidence) for teaching in diverse classrooms?
2. Does the role of these factors for shaping beginning teachers' self-efficacy (confidence) for teaching in diverse classrooms change as they transition from the pre-service phase into their teaching careers, particularly during the first three years?

The knowledge gleaned from this research would inform teacher education programs with respect to how to further tailor their content and structure in order to graduate teachers who feel more confident and prepared to engage in inclusive teaching. The results would also guide school leaders and administrators about how they can increase positive classroom experiences for beginning teachers and minimize the negative ones, as well as provide professional development opportunities and resources that support and increase their confidence for teaching in diverse classrooms.

# Chapter 3 Methods

## Beginning Teachers Study

The present study was based on a subset of data collected as a part of the ongoing Beginning Teachers Study funded by an Insight Grant through the Social Sciences and Humanities Research Council of Canada (SSHRC). The Beginning Teachers Study is a five-year cross-Canada longitudinal study tracking the development of self-efficacy and instructional expertise of beginning teachers from the time they start their teacher education program to the early years of their teaching careers. The aim of the research is to understand the underlying factors that influence beginning teacher self-efficacy and competence to teach in inclusive classrooms. The research study began in 2015 with Dr. Jacqueline Specht as the primary investigator along with a team of 24 inclusive teacher education researchers from Canadian post-secondary institutions representing different provinces, including Alberta, British Columbia, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec, and Saskatchewan. The Beginning Teachers Study involved two interlinked investigations using a combination of quantitative and qualitative data collection methods.

### *Study 1*

The first investigation recruited teacher candidates at the beginning of their initial teacher education coursework on inclusive education. The participants were solicited from faculties of education at the universities with which the co-investigators of the Beginning Teachers Study were affiliated. They were followed as they completed their programs and transitioned into their professional careers. To ensure that a large enough sample was obtained, and sufficient participants could be recruited for Study 2, pre-service participants were enlisted at two different time points separated by a year, that is, during 2015 (cohort 1) and 2016 (cohort 2). The

participants were asked to complete an introductory questionnaire designed to gather demographic data. Further, they were assessed for their knowledge of effective instructional practices, beliefs, and self-efficacy for teaching in inclusive classrooms throughout their involvement in the study. This was undertaken by surveying them annually using quantitative instruments including the Teacher Efficacy for Inclusive Education (TEIP; Sharma et al., 2011) and the Beliefs about Learning and Teaching Questionnaire (BLTQ; Jordan & Glenn, 2008).

***Study 2***

The second, inter-related investigation was qualitative in nature, designed to develop a deeper understanding of the findings of the quantitative results emerging from the first study. Initially, pre-service teachers who participated in the demographic surveys during the first study were invited to participate in a series of interviews taking place at four strategic times: beginning when they were graduating from their teacher education program and continuing on an annual basis through their beginning teaching years. Since the Beginning Teachers Study spanned five years, it was expected that willing participants from Cohort 1 would be interviewed four times, once at the culmination of their teacher education and then annually for the next three years as they began their teaching appointments. Similarly, participants from cohort 2 would be interviewed three times with the first time being when they graduate, and the next two times as novice teachers at the initial stages of their careers. However, there was considerable attrition from the pool who originally expressed agreement at all stages of the study. Therefore, additional participants were recruited in 2017 during the third year of the study (cohort 3) to ensure that a sufficiently large sample could be obtained. These participants were not involved in the first study. To solicit the additional participants, an information letter was distributed to potential participants through participating faculties of education notifying them of the purpose of the

study and the details of their involvement if they choose to take part. The letter specified that individuals who were in their first year of a permanent teaching contract were eligible to be included. As a result of these added participant recruitment measures, a reasonably large number of interviews from graduating teachers and new teachers in each of the first three years of their teaching careers was obtained. The interview responses of cohort 1 and 2 from study 1 and cohort 3 from study 2 collectively served as the data set for the current study.

## Research Design

The present research study was qualitative in nature. Although interview data that was used in the Beginning Teachers Study was collected from participants over time, there was participant attrition. Only a small number of respondents were available for interviews at all the required time points and remained with the study throughout. Therefore, a truly longitudinal investigation of the interview data was not undertaken in the present study. Rather, the data collected was grouped by beginning teachers' years of experience (e.g., graduating teachers, first-year teachers, second-year teachers, and third-year teachers), then analyzed cross-sectionally to determine if the role that different factors and experiences play in shaping teachers' self-efficacy changed as they transition from the pre-service phase into their teaching careers, specifically in the first three years.

## Participants

The participant sample included teachers who were graduating from teacher education programs across Canada (cohorts 1 and 2) and teachers who were in their first year of a permanent teaching contract with a school (cohort 3) at the time of their first interview. Beginning teachers were best suited for this research as they had gone through pre-service

education and training and had experienced the realities inside actual classroom settings, as well. Therefore, their accounts were based on actual experiences that they have had and not simply on their perceptions and expectations. Although a conscious effort was made by the investigators of the Beginning Teachers Study to ensure adequate representation from various provinces during recruitment, the composition of the participant pool changed as the study progressed, despite these measures. The sample for the present study was composed of a total of 78 participating beginning teachers, with 60 females and 16 males. Two participating teachers were from Alberta, 17 from British Columbia, 4 from New Brunswick, 3 from Newfoundland and Labrador, 5 from Nova Scotia, 38 from Ontario, 1 from Quebec, and 7 from Saskatchewan (See Table 1). Interview responses were obtained from 52 teachers as they were leaving their teacher education programs: 47 teachers during the first year of their teaching, 23 teachers during the second year of their teaching, and 17 teachers during the third year of their teaching. This resulted in 139 interviews which were analyzed in the present study (See Table 2).

**Table 1**

*Summary of Sample Demographics*

| Demographic Characteristics | | | | | | |
|---|---|---|---|---|---|---|
| Gender | | | | | | |
| Female | | Male | | Other | | |
| 60 (77.92%) | | 16 (20.77%) | | 1 (1.30%) | | |
| Ethnicity | | | | | | |
| Aboriginal | Black | Latin American | White | Other | | |
| 2 (2.60%) | 1 (1.30%) | 4 (5.19%) | 67 (87.01%) | 3 (3.90%) | | |
| *Grade Level Taught | | | | | | |
| K-3 | 4-6 | 7-8 | 9-10 | 11-12 | | |
| 30 (43.47%) | 46 (66.67%) | 38 (55.07%) | 39 (56.52%) | 26 (37.68%) | | |
| Education | | | | | | |
| Secondary School | GEP | Bachelor's | Master's | Other | | |
| 2 (2.60%) | 0 (0.00%) | 66 (85.71%) | 8 (10.38%) | 1 (1.30%) | | |
| **Age | | | | | | |
| 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | Not Provided |
| 14 (18.18%) | 30 (38.96%) | 13 (16.88%) | 8 (10.38%) | 4 (5.19%) | 3 (3.90%) | 5 (6.49%) |
| Province | | | | | | |
| AB | BC | NB | NL | NS | ON | QC | SK |
| 2 (2.59%) | 17 (22.07%) | 4 (5.19%) | 3 (3.90%) | 5 (6.49%) | 38 (49.35%) | 1 (1.30%) | 7 (9.09%) |

*Note.* n = 78; demographic data for 1 participant was not available

*69 participants responded to the question inquiring about grade level taught.

**mean age of the sample was 29.81 years.

**Table 2**

*Number of Interviews Conducted per Cohort at Each of Four Time Points/Rounds.*

| | Cohort 1 (2015 intake) | Cohort 2 (2016 intake) | Cohort 3 (2017 intake) | Total |
|---|---|---|---|---|
| Round 1 (graduating teachers) | 37 | 15 | NA | 52 |
| Round 2 (first-year teachers) | 35 | 4 | 8 | 47 |
| Round 3 (second-year teachers) | 21 | 0 | 2 | 23 |
| Round 4 (third-year teachers) | 17 | - | 0 | 17 |
| | | | | Total = 139 interview responses for analysis |

**Ethical Considerations**

Approval for the Beginning Teachers Study was obtained from Western University's Human Research Ethics Board as the primary investigator was affiliated with that university and the study data was housed on Western University's servers. Additionally, each co-investigator working on the study separately secured ethical approval from the institution they were affiliated with. All potential participants were provided a letter outlining the purpose of the study and containing information about the research procedures involved (see Appendix A). Interested individuals provided their consent by emailing the primary investigator expressing their willingness to participate in the study and completing a consent form (See Appendix A). Recruited participants were asked to complete demographic questionnaires as well as surveys regarding their beliefs and experiences while teaching in an inclusive classroom. These completed questionnaires were saved separately from the qualitative data that was to be collected. Each participant who completed the surveys was assigned a unique random numeric identifier as a measure to protect their identity and personal information. Participating teachers were then interviewed either when they were approaching graduation from their teacher education program, or during their novice teaching year at a time of their choice and at a private location that was convenient for them.

The interviews were held over the telephone and were approximately 30 minutes in length. The interviews were audio recorded and then transcribed verbatim. All personally identifying information was removed from the transcripts of the interviews. For protection of participant data, it was ensured that the computers that were used for transcription of interviews were password protected at all times. Interview recordings and transcripts were stored on a secure cloud-based platform and back-ups were made to prevent data loss. At the end of the first

interview, each participant was asked if they wished to continue their participation in the study by taking part in either one, two or three follow-up interviews, depending on the year during which they were recruited into the study. Participation in the interviews was completely voluntary and could be withdrawn at any time. Moreover, having participated in one interview did not mean that the participants were required to agree to future interviews.

**Instruments**

The research employed semi-structured interviews to provide an opportunity for the beginning teachers to share detailed accounts of their early teaching experiences which they felt shaped their confidence and competence to teach in inclusive classrooms. One of the strengths of the interview as a data collection instrument is that it is "an effective way of soliciting and documenting, in their own words, an individual's or group's perspectives, feelings, opinions, values, attitudes, and beliefs about their personal experiences and social world, in addition to factual information about their lives" (Saldaña, 2011, p. 32). The semi-structured format of the interview allowed for researcher control over the topics to be investigated through pre-set, yet open-ended questions, while simultaneously giving participants the opportunity to share their perspectives and experiences candidly (Given, 2008). In each interview, regardless of the time point at it which it was conducted, the interviewee was asked three questions:

1. What experiences have influenced the instruction that you use in diverse classrooms?
2. What experiences have contributed to your beliefs in how children learn in diverse classrooms?
3. How confident do you feel in teaching in diverse classrooms? Has this increased, decreased, or remained the same over the last year? What experiences have contributed to your level of confidence for teaching in diverse classrooms?

The interviews were conducted by trained graduate students who were provided detailed written instructions and prompts to refer to while interacting with the participants to ensure consistency across interviews. After their initial response to each question, the participants were probed further in order to obtain a more detailed account of their experiences. Although the interviewers were provided a set of possible probes for guidance, they primarily adopted an open probing strategy, asking follow-up questions based directly on the participant's comments. Participant responses related to instructional practices for and beliefs about teaching in inclusive classrooms (Questions 1 and 2) were not included in the present study. Rather, the present research study focused on participant responses to the third question, which targeted teacher self-efficacy. The word "confidence" was used while asking the question as it is more commonly used and understood colloquially.

**Data Analysis**

To address the research questions, a qualitative content analysis of the interview responses of beginning teachers was conducted to identify the experiences that were most frequently expressed as being influential in contributing to or undermining confidence. The factors unearthed through the analysis were integrated into an explanatory conceptual model that explains how beginning teachers' sense of efficacy to provide instruction in diverse classrooms is impacted. The concepts identified through the analysis highlighted the quality and nature of experiences that teachers believed positively or negatively impacted their self-efficacy. The analysis also allowed for generating potential explanations regarding the changing levels of teacher self-efficacy during the early years by drawing inferences from teachers' responses.

### *Qualitative Content Analysis*

A qualitative content analysis (QCA) allows the researcher to decipher meaning from textual content with the intent to provide new knowledge and insights about a phenomenon and describe it conceptually (Elo & Kyngäs, 2008). According to Hsieh and Shannon (2005), QCA is defined as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p. 1278). Thus, it is a systematic approach for analyzing textual, narrative, or visual forms of data to count and categorize specific items it contains and identify the most frequent ones. Through a QCA, large amounts of textual or narrative data can be condensed into a few content-related categories based on the assumption that words or phrases that communicate a shared meaning can be grouped together into the same category (Elo & Kyngäs, 2008). The objective of conducting a QCA is to attain a broad abstracted description of a process or a phenomenon by generating concepts or categories that describe it. In the case of the present study, the analysis illustrated the development of self-efficacy in beginning teachers to teach in diverse classrooms by identifying the factors shaping it.

### *Inductive Approach to Analysis*

An inductive approach to content analysis was undertaken to explore factors influencing beginning teachers' self-efficacy for inclusive teaching. In an inductive approach, concepts or categories are directly derived from the qualitative data (Anandarajan et al., 2018; Elo & Kyngäs, 2008). Inductive inference or meaning-making typically has a bottom-up style, moving from the specific to the general, and observing particular instances, and then combining them into a cohesive whole (Elo & Kyngäs, 2008). The rationale for adopting this approach was that the extant literature lacked a unified theory about the influences on the development of teacher

self-efficacy for teaching in diverse classrooms and the evidence available about possible predictors was fragmented. The goal of this research was to identify the factors most commonly expressed by beginning teachers in their interviews that they deem influential for shaping their self-efficacy for inclusive teaching and to combine them into a coherent framework or explanatory conceptual model.

### *Open Coding*

For this purpose, all interview transcripts were initially read to gain an overall impression or holistic view and gain familiarity with the data. After acquiring this broad overview, the transcripts were read again for open coding. During this stage, key phrases from the text that suggest an underlying meaning relevant to the research questions were identified and codes were developed and applied to these phrases. A code is

> a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data… Just as a title represents and captures a book or film or poem's primary content and essence, so does a code represent and capture a datum's primary content and essence. (Saldaña, 2009, p. 3)

Initial open coding was an exhaustive process attempting to extract all possible factors directly or latently expressed in the data without making any inferences about their possible linkages (Berg, 1995). The coding of interview responses was performed manually as despite being a cumbersome task, it allowed for a richer and deeper immersion into and interaction with the data (Anandarajan et al., 2018). While coding, analytical memos were drafted as needed. These write-ups were useful for formulating theoretical ideas or conceptual links as they appeared, for further investigation or follow-up after coding was completed (Berg, 1995).

### *Process Coding*

The specific type of coding that was used for this research was process coding. In process coding, gerunds or "-ing" words are solely used as codes to denote dynamic processes in the data including human actions, cognitive processes, or conceptual ideas (Saldaña, 2014). This particular type of coding was selected as it emphasized teacher agency and demonstrated that the development of teacher self-efficacy was an ongoing process that required action and active participation from teachers to acquire certain kinds of experiences. After an emergent coding scheme was developed through extensive open coding, the data was put through a second cycle of process coding in order to achieve code saturation. Saturation occurs when no new codes are being generated (Anandarajan et al., 2018).

### *Frequencies*

A frequency tally of the emergent process codes was maintained while reviewing and coding interview transcripts with the assumption that codes that were mentioned by a greater number of participants could be inferred to be salient for beginning teachers in the development of their self-efficacy. In many transcripts, the same code was applied multiple times because the participant referred to the kind of experience it represented several times and through several comments. However, regardless of how many times a single participant talked about an experience or factor within the interview (i.e., regardless of how many times a process code was applied within a single transcript), the participant was counted only once in the overall frequency tally for that code. This decision was taken because the purpose of the frequency tally was to determine what percentage of participants from each group of beginning teachers considered that experience or factor to be significant enough to be mentioned. Multiple mentions from the same participating teacher would have indicated that the experience was very significant to that

individual teacher, but it may not have been necessarily equally significant for the group of teachers they were part of. To prevent a single participant's response from skewing the total frequencies and inflating them, they were only counted once in the total tally.

***Categorization and Abstraction***

The emergent codes were iteratively sorted into broader conceptual categories. The aim of categorization is to eventually arrive at categories representative of more abstract concepts which have generalizability beyond the study sample to the larger population (Anandarajan et al., 2018). As with initial coding, initial categorization was also undertaken in great detail to ensure that all possible categories that codes can be classified into were generated. The categories were then fine-tuned and finalized through abstraction by combining similar ones and removing duplicates. Abstraction needed to be done carefully and completely to avoid an abundance of redundant categories or categories that are difficult to connect (Elo & Kyngäs, 2008). During this process, three different categorization structures were created and graphically depicted to determine which one best described the data. All three categorizations were then compared and one out of them was selected because it was subjectively the best representation of the interactive influence of the multiple processes that the data revealed as impacting teacher self-efficacy. The final selected categories that represented factors that influence beginning teachers' self-efficacy for teaching in diverse classrooms were then woven together into a conceptual model which explains how they work simultaneously to shape beginning teachers' confidence for inclusive instruction. The model that was developed also elucidates how beginning teachers' self-efficacy can be cultivated so that they are able to support students with a range of abilities and learning needs in diverse classrooms.

# Chapter 4 Results

The goal of this research was to identify factors that influence beginning teachers' self-efficacy to teach in diverse classrooms. Additionally, it aimed to determine if the role of these factors changes as beginning teachers transition from their pre-service phase to their teaching careers, particularly during the first three years. To answer these questions, the interviews of beginning teachers were coded and the resulting process codes were categorized to determine the factors that shape teacher self-efficacy. A conceptual model illustrating the relationship between these factors was then constructed to explain how teachers' self-efficacy for inclusive practice develops. Frequencies of the process codes were examined to identify which experiences beginning teachers considered to be most influential for the development of their self-efficacy. The top ten most frequent codes were then compared across the four groups of beginning teachers, namely graduating, first-year, second-year, and third-year teachers to detect any changes in the role of factors that shape teachers' self-efficacy for inclusive practice.

## Codes Representing Teacher Experiences

Through the two cycles of open coding of the participant interviews, 86 process codes emerged. Each of these codes captured the experiences that beginning teachers shared as being influential in shaping their self-efficacy for teaching in inclusive classrooms. As Saldaña (2014) posited, the various process codes represented actions, cognitive processes, and conceptual ideas that beginning teachers experienced during their early years of practice which affected their confidence in their inclusive instructional abilities. The code "discussing and collaborating with other teachers", for instance, described beginning teachers actively interacting with their colleagues to plan collaboratively, get advice on how to support a particular student, or receive feedback on a lesson plan or learning activity. The code "reflecting on practice", on the other

hand, illustrated the mental process of contemplation that many novice teachers engaged in, with the goal of figuring what worked and what they could have done differently after conducting a lesson or completing an academic year. Still other codes, such as "experiencing a wide range of learning needs within a classroom" or "being placed in a variety of educational settings" encapsulated conceptual ideas, such as the significance of variation in personal and professional experiences. The complete list of the 86 codes that emerged after process coding the interviews, along with their corresponding frequencies for all four groups of beginning teachers, is presented in Appendix B.

**Categories Representing Factors Influencing Beginning Teachers' Self-Efficacy**

An analysis of the 86 codes and the experiences of beginning teachers that they represented, revealed that the codes either had a positive or a negative connotation attached to them and so were classified into those two broad dimensions. Whether a code was considered to be reflective of a positive or negative experience was purely inferred from the teacher comments it was composed of. This resulted in 63 codes belonging to the positive experiences dimension whereas 23 codes were identified as belonging to the negative experiences dimension. Looking at the codes more carefully, it was observed that the codes within each dimension could further be grouped into five broader types of experiences based on the contexts or individuals with whom beginning teachers had those experiences. This grouping revealed (1) instructional experiences within the classroom, (2) experiences with students, (3) educational and training experiences, (4) experiences with colleagues and other support and administrative professionals, and (5) personal experiences as the five areas within which both the positive and negative experience codes were classified. As a result of this experiential categorization, five factors, one belonging to each of the domains of experiences mentioned, emerged within both positive and

negative experiences dimensions, resulting in a total of ten factors that collectively influence beginning teachers' self-efficacy. The final categorization, showing which process codes were sorted into which factor, is presented in Appendix C.

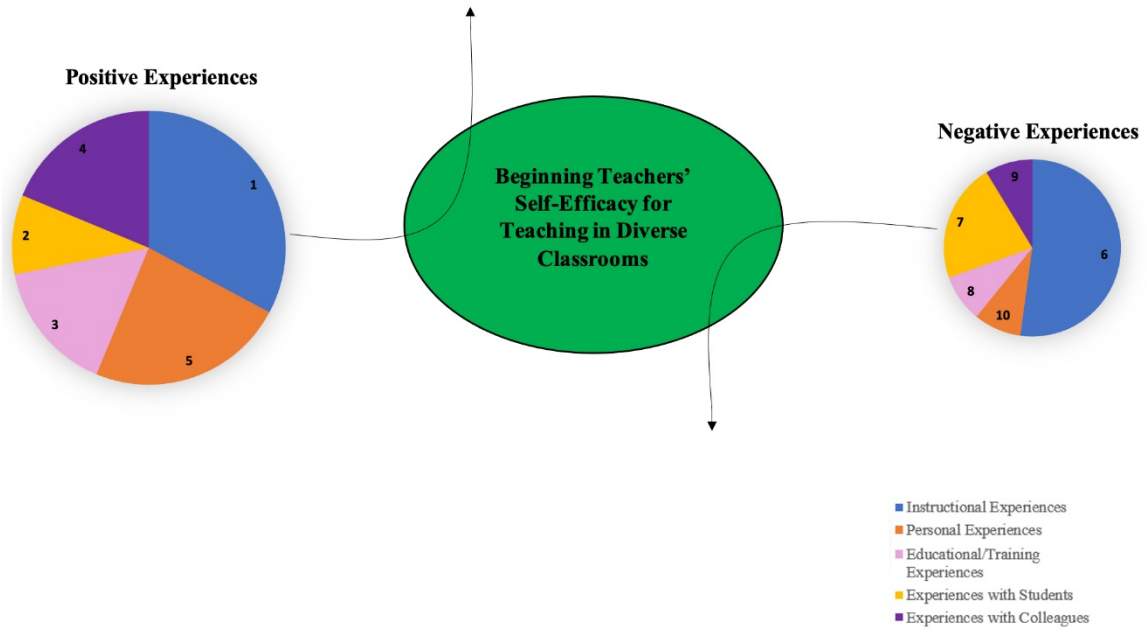
**The Positive-Negative Experiences Balance Model of Teachers' Self-Efficacy**

To understand how these ten factors collectively influence beginning teachers' self-efficacy to teach in diverse classrooms, a conceptual model (Figure 1) was developed. This conceptual model was developed on the basis of the categorization of the process codes that emerged from the interviews of beginning teachers and is named the Positive-Negative Experiences Balance (PNEB) model of teachers' self-efficacy. It was observed through the review of beginning teachers accounts that they had several kinds of both positive and negative experiences when they started teaching in diverse classrooms. While they gained instructional experience, they also faced challenges in the classroom as they taught. Their interactions with diverse students provided them with the opportunity to get to know their student's needs and see them succeed when appropriate strategies were adopted. However, that direct experience also exposed them to the continuous struggles and failure of those students when they were not sufficiently supported. Beginning teachers developed their pedagogical approach through the advice, feedback, and support of their colleagues and administration, and yet occasionally there were times when they felt unheard and misunderstood amongst their professional network and parents of their students. The education and training they received gave them a good foundation for inclusive education, but they also recognized once they started practicing that it was not sufficient and had not prepared them adequately. Beginning teachers possessed both personality strengths, like openness to learning, patience, persistence, and self-reflection, and weaknesses, such as uncertainty and frustration. Their self-efficacy was shaped by both their positive and

negative experiences simultaneously. At any given time, their overall self-efficacy depended on the balance of these opposing kinds of experiences. If the positive experiences outweighed the negative ones, the balance tilted towards greater self-efficacy. On the contrary, if the negative experiences were greater than the positive ones, their self-efficacy decreased. It bears stating here that the number of experiences was not as important as the strength and salience of those experiences. As the PNEB model depicts (Figure 1), beginning teachers had fewer negative experiences overall, but those appeared to stand out and remain memorable.

**Figure 1**

*The Positive-Negative Experiences Balance Model of Beginning Teachers Self-Efficacy*




*Note.* The numbers correspond with each of the ten factors that influence beginning teachers' self-efficacy to teach in diverse classrooms. 1 = Gaining instructional practice within the classroom, 2 = Building positive relationships with students with diverse needs, 3 = Acquiring relevant education and training, 4 = Receiving support from colleagues, school administration, and other professionals, 5 = Drawing from personal strengths and experiences, 6 = Facing challenging situations within the classroom, 7 = Experiencing setbacks while teaching diverse students, 8 = Feeling unprepared by teacher education, 9 = Feeling unheard and unsupported by colleagues and other stakeholders, 10 = Dealing with personal uncertainties and frustrations. The colours represent the five domains of experience as shown by the key.

What follows is a description of each of the ten factors influencing beginning teachers' self-efficacy for inclusive practice that make up the PNEB model. These factors are presented as an aggregate of the analysis of the interviews of all four groups of participating beginning teachers, (i.e., graduating, first-year, second-year, and third-year teachers). However, any patterns that elucidated how each of the factors influenced the four groups of beginning teachers differently have been explicitly stated to highlight their changing role during beginning teachers' first three years of practice. The factors are not presented from largest to smallest because the positive factor associated with a particular domain of experiences is not necessarily equally as large as the negative factor associated with the same domain of experiences. For example, "Drawing from personal strengths and experiences", which belongs under the personal experiences domain, is the second largest positive factor; whereas, "dealing with personal uncertainties and frustrations", which is the negative factor in the same domain, is one of the smallest negative factors. So, the five positive factors, one belonging to each of the domains of experiences mentioned previously (i.e., instructional experiences, experiences with students, educational and training experiences, experiences with colleagues and other support and administrative professionals, and personal experiences) are described first, followed by the five negative factors described in the same order for consistency.

**Positive Experiences**

***Factor 1 - Instructional Experiences: Gaining Instructional Practice within the Classroom***

The most prominent factor that beginning teachers (i.e., both graduating and new teachers) identified as being influential in building their confidence was gaining actual teaching practice inside the classroom. The prominence of this factor was reflected in 20 out of 86 (23%) process codes referring to this broad concept. Participating beginning teachers from all four

groups that were interviewed emphasized the significance of the time that they spend inside a diverse classroom actually teaching a variety of students with a range of educational needs and challenges in giving them confidence to do so effectively. Beginning teachers (including both graduating and new teachers) in this study endorsed that gaining more instructional practice in the classroom played an instrumental role in shaping their confidence. Early on in their careers, particularly during the first year of teaching, teachers have very limited experience with actual classroom instruction. Up until that point, practicums during their initial teacher education provide most of their practice in the act of teaching. These practicums, although a useful training experience, are supervised and do not involve independent teaching. Additionally, unlike professional teaching, they last only a few weeks at a time rather than an entire academic year and so offer little daily teaching practice. Participating beginning teachers communicated that this limited experience initially made them feel less confident about teaching in diverse classrooms, as was reflected by a first-year teacher who expressed,

> Like in anything experience is key, experience is what makes you a master at something and I don't have a lot of it, and I'm only in my first year of teaching … So, I don't feel like I have enough experience to rate myself as super confident in actually doing the work. (participant #8003)

The day-to-day practice that teachers gained from being in the classroom had a powerful influence on their self-efficacy for inclusive practice as it allowed them to apply the theoretical knowledge that they had acquired through their education and see it in action. This was shown through the words of a participating teacher who towards the end of her first year of teaching shared while thinking aloud,

> Just experience in teaching that I've gained so far in just the last year, I think has been the biggest thing. I mean the theory can, and what I've learned in the education program is helpful, it gives the spine, like knowing when to take certain steps or where maybe consult an outside resource, in certain situations has been helpful in what I've learned in my training, but yeah, I think the biggest contributor has actually been just teaching. (participant #12115)

Being physically present in a diverse classroom and spending time with students with a range of learning needs was necessary for beginning teachers in order to gain more instructional practice and feel more confident about teaching them inclusively. Participant #12005 articulated this very clearly,

> Then of course what also has contributed to my level of confidence is actually being in diverse classrooms. And so even though in some cases, they can be far more challenging than a homogeneous classroom of just a bunch of the same culture with the same ability or what have you, that's where that most growth happens.

As beginning teachers gained classroom instructional experience, they also, through their daily interactions, gained exposure to students with a variety of disabilities and this exposure contributed to raising their self-efficacy, as illustrated in the following exchange. When asked what experiences have contributed to their level of confidence, participant #7073 who felt highly efficacious in teaching in diverse classrooms, responded,

> I think just generally the fact that I've dealt with so many students that are such a wide variety of behaviours and exceptionalities that I don't get as worried walking into a classroom anymore because I've seen such a wide variety and dealt with such a wide variety. . . I think that's probably the biggest thing.

Beginning teachers further conveyed that in addition to the amount of instructional practice, variation in their instructional experience was another aspect that they felt increased their self-efficacy. Teachers who had taught different subjects and different grade levels expressed greater confidence for teaching in diverse classrooms. Similarly, being placed in a variety of educational settings, such as both rural and urban schools, was also mentioned as an aspect of instructional experience that participating beginning teachers believed raised their self-efficacy for inclusive teaching.

***Factor 2 – Experiences with Students: Building Positive Relationships with Students with Diverse Needs***

Beginning teachers also considered forming relationships with their diverse students to be a strong contributory factor for their confidence in teaching them. Six out of 86 (7%) process codes made up this factor encompassing different aspects of classroom experiences teachers have with their diverse students. In their interviews, participating beginning teachers stated that by working directly with the students and interacting with them daily, they got to know their student's strengths and stretches well. Participant #12043 talked about these interactions serving as a source of information about the students, "I just have a lot more confidence… from really listening to that student and seeing what they need." This knowledge about students' needs allowed beginning teachers to feel more efficacious about determining what instructional strategies would best support them overcome their struggles. One comment that illustrated the value in developing relationships with students came from participant #12124 who said,

> Specifically responsible for the shift in confidence, well, as the result of a lot of different things I'm more aware than ever that relationship with students is a major determining factor in how successful any strategies, or whatever we might use, would be. Both from

> experiences building relationships with students in classrooms to listening to friends and family talk about connections with their teachers, or their kids' connections with their teachers, or colleagues talk about building relationships with students, I would say that would be another piece of the puzzle.

Beginning teachers further explained that building a positive relationship with students who have different needs and challenges not only increased their self-efficacy for using inclusive instructional strategies with them, but also raised their efficacy for managing disruptive behaviours when they occurred. Suggestive of this influential impact of having a connection with the diverse students was the following comment by participant #10206,

> I know the community and know all the students, too, and so um, we have a relationship. You see them in the hall, say good morning, and you build these nice positive relationships. So, when you have to deal with a negative situation or a more challenging situation, you already have a rapport. And you're more confident to interact with the child or intervene if you need to do something because you have that rapport and relationship already built, but that helps with confidence.

By getting to know the students and understanding what frustrated them, teachers were able to put the right supports in place for mitigating their challenges. This resulted in the students with diverse needs achieving academic success, emotional regulation, and social competence. The success of these students at various tasks gave beginning teachers the confidence that the strategies that they were implementing were working and were effective. When asked what kinds of experiences contributed to their level of confidence for teaching in diverse classrooms, participant #12124 specifically said, "I guess watching some students succeed. or you know,

manage to successfully master certain tasks or certain learning outcomes." Participant #10206 also answered,

> Seeing the progress, because we've been so good at you know, we've instilled the routine, we have structure. We have set guidelines in our classroom and this child has just come leaps and bounds. It's really encouraging to see this child's progress. She's doing SMART. She came to this class, she's for reading and knowing all sorts of things, but behavioural and emotional, that was really behind and it's really nice to be able to see that progress. So, it's nice. it's really heart-warming and it gives me confidence, right? It's like my work that I do, look what I have so far and it's only five months into school and look what we have to show for it, for our hard work, and that gives me more confidence, too.

These comments from participating beginning teachers demonstrated that it was important for them to see the progression of students with diverse needs within the classroom as evidence of the effectiveness of their instructional techniques. It boosted their self-efficacy because it served as a concrete proof that the strategies they were trying out with the students were working and were, therefore, a testament to their instructional capabilities. What also considerably raised beginning teachers' self-efficacy was students' own positive feedback as expressed by participant #7181 when they said, "It feels really fantastic when a student tells you that they have really enjoyed my class, and that I made something accessible to them, and that they get it, and they care about it."

***Factor 3 – Educational/Training Experiences: Acquiring Relevant Education and Training***

One other factor, comprising of 10 out of 86 (12%) process codes, which beginning teachers emphasized as having an influence on their self-efficacy for inclusive practice was

acquiring relevant education and training that prepared them for teaching in diverse classrooms. Interview responses from beginning teachers in this research elaborated on particular characteristics of teacher education and training that they found useful. Participant #13095, for instance, said,

> There's also a confidence that my courses, and once again, particularly my education courses, came with a focus fully on diversity. And so to know that that's there, that I've immersed myself in some of the literature on that has been helpful just to be like oh you do have a background from which to build off of.

Similarly, participant #12005 shared,

> There were a couple of courses during my B.Ed that gave us skills. I think that what I need is some type of a plan before stepping into a situation. That's the kind of person I am. And so, some courses gave us suggestions on how to handle having students who oppose each other with your ideas or the way that they learn, or how to handle conflict in the classroom, how to handle as I said ELL students, how to properly encourage them and support them and that was just a really great foundation.

Remarks like these were made by several participating beginning teachers, suggesting that inclusion-related coursework provided them knowledge of pedagogical concepts which were relevant for handling classroom diversity, and which teachers could then build upon and utilize once they were in the classroom. Some participants, such as #13007, also named specific courses which they felt stood out from their teacher education program as having an influence,

> Having the courses that we did at (name of university) really did help. That's where I gathered a lot of what I know and a lot of what I think I can do, and it was just going into the school and seeing it in action that cemented that those are the right things to use. . . .

> Definitely spec-ed. and educational psychology as well because it touched upon teaching different levels, like different grades, and I think that really speaks to, like learning disabilities and children that are gifted, that kind of thing.

The idea briefly alluded to in the preceding quote, that practicum placements in different schools during the teacher education programs allow beginning teachers to strengthen their instructional skills and feel more confident, was very strongly conveyed by many beginning teachers. Regarding the impact of those practicums, participant #12046 commented,

> That was the biggest, that was where pretty well all of the learning that I had, took place was in my practicum experiences and then when I was able to learn from my mentor teachers while I was on those practicum experiences. That's where the biggest growth in my confidence came from.

Beginning teachers found the practicums to be so impactful because they were able to observe instructional practices they understood theoretically in their action through these experiences. They were also able to practically apply the strategies that they had learned about in their courses during these placements for a brief period which gave them confidence in their skills. Participant #6154 described their learning during one of their practicums saying,

> So, there was definitely different work for students who had IPPs or students who weren't on the same track as everyone else. So, some students required more explanation, some students you had to sit with, some had specific assistive technology I had to get familiar with, that system in one of the classrooms, I forget what it's called, but it's for people who are hard of hearing.

Apart from taking coursework and engaging in practicums during teacher education, beginning teachers also gain confidence by continuing to develop themselves professionally by

reading relevant books and literature, attending workshops, completing additional qualifications and certifications, and browsing relevant websites for resources. One of several examples of how such professional development opportunities enhance teachers' self-efficacy is represented in the following quote by participant #7073 after they described several workshops that they had attended,

> I think these workshops gave me extra tools or words that I was lacking that I didn't know how to explain to myself. So, it gave me a more clear road map, I guess. And some of them reaffirmed things that I knew, that I felt I knew… I would say that they actually probably just built up my self-confidence in just staying the course that I'm on.

***Factor 4 – Experiences with Colleagues: Receiving Support from Colleagues, School Administration, and Other Professionals***

Another powerful factor that emerged from beginning teachers' responses as being instrumental in raising their self-efficacy for teaching in diverse classrooms was the support they received from their colleagues, school administration, and other professionals who assisted them during the instructional process. This factor was made up of 12 out of the 86 (14%) process codes. The support took the form of both verbal discussions, feedback, encouragement, and advice as well as active collaboration with other teacher colleagues. For graduating teachers, such positive support came from having a healthy mentoring relationship with the associate teachers with whom teacher candidates worked during their practicums. Graduating teachers taking part in this research found that their mentor or associate teachers were a strong source of learning and information specific to inclusive instructional practices for them and observing and teaching with them contributed to their own self-efficacy for teaching diverse students. One

graduating teacher, participant #10488 spoke fondly about their associate teacher (AT) and what they had learned by observing her,

> So especially this year, at the beginning of the year I noticed my AT. She has an integrated safe classroom, really focusing on not necessarily curriculum content, but more focused on building community in the classroom, and building connections with the students and gaining their trust pretty much, and building up the students' confidence by using growth mindset and those sorts of things. And then through that, when we get into the curriculum and you see the students at different levels, just seeing how she is able to, especially, we did a lot of carpet activities where we would do like a chalk talk type of thing, whether it be for, usually math we'd do number chalks, and those sorts of things, but the way I noticed she really was able to differentiate in the way she phrased her questioning. So, she had really specific questioning for different students. She would ask a question but specifically to a student, and it was a question that they would be able to answer. . . . The questioning was so tailored to her students because she knew her students and she knew the level they were each at.

The support of teacher colleagues remained valuable in the first couple of years of practice for beginning teachers when they did not have enough first-hand instructional experience to draw upon as expressed by first-year and second-year teachers in this research. During these initial years, beginning teachers learned indirectly by observing the actions and experiences of other teacher colleagues who had been in service for a longer time. Participant # 13095 talked about the guidance of teacher colleagues serving as a source of confidence by stating,

> So, in this situation where I've had to learn more or learn specific things, I've been able to ask the colleagues around me who are more specialized and who have been doing this longer. Like how would you approach numeracy for a non-verbal person? So I gained confidence from going to people who have more experience in the field than me.

Another participant, #10206, commented,

> I do like to watch my colleagues when I walk by a classroom or when I'm on prep and I go and watch them, because I find there are teachers out there who are really amazing and it's nice to watch them and get tips from them - how they manage certain students or a certain situation.

This participant further went on to say that learning from watching other teachers handle classroom situations which they have not had to face themselves gave them greater confidence in their own ability to deal with them if and when they arose in a diverse classroom.

Apart from gaining confidence from their colleagues, beginning teachers also benefitted from support and resources they received on a broader scale from their school administration to facilitate them in the provision of inclusive instruction. Several participating teachers mentioned that working in a safe and helpful school environment lead by a supportive principal and administration gave them immense confidence. While sharing the different experiences that contributed to their level of confidence for teaching in diverse classroom, a novice teacher specifically referred to this by sharing,

> Another one has been, especially as a new teacher, having an admin in the school where I did have a contract that just felt really supportive… I felt like I could go to them if I had tried something that totally didn't work versus shut down that it was actually a bad idea. But I felt safe to share that and know that I'm coming from a place of learning, and they

> want ultimately the students to have the best experience as well, and if that means supporting me through some ups and downs, they are willing to do that. (participant #8003)

Participating beginning teachers further elaborated that having instructional guidance and assistance from resource professionals, such as educational assistants, learning support teachers, behavioural consultants, psychologists, school counsellors, etc. makes them feel efficacious about supporting diverse learners as they feel they have access to the personnel resources if they need help. The following quote vividly illustrated this idea,

> So, I feel a lot of support from my district, and then again, I have the support of my mentors and my principal at my school is also very supportive as well as my learning support teacher. I know that she's there if I'm having challenges. She'll help me problem-solve and hopefully direct resources my way. As well as school-based team meetings, we have those regularly, so if we need to bring a kid into a school-based team meeting then we have the whole panel of people supporting us and giving us ideas for that student which include a psychologist, a school counsellor, and um our learning support teacher and the principal, and usually one other from the community, and from our school district, too. So, that's been really helpful, too. (participant #12144)

***Factor 5 – Personal Experiences: Drawing from Personal Strengths and Experiences***

The fifth factor, comprising 15 out of 86 (17%) codes, that beginning teachers referred to as having a positive impact on their self-efficacy for inclusive teaching was drawing from their personal traits and life experiences. Several participating beginning teachers mentioned personality traits they possessed and cognitive processes they engaged in which helped build

their confidence. Talking about their confidence for teaching in diverse classrooms, participant #2273 shared,

> I think my confidence is continuing to grow, but I think there's always room for more growth at the same time. Whether you've been teaching for 25 years or your new into it, there's always room to grow within spec ed and just the classroom overall.

This statement indicated that being open to learning and growth influenced the development of teachers' self-efficacy. Along with this trait, beginning teachers also expressed that being patient and ready to step out of their comfort zone made them feel more efficacious. This is likely because teaching diverse students who have needs different from those which can be met through traditional methods requires innovation and persistence. It can seem challenging because the strategies being tried out may not work or may take time to show positive results in terms of improvement in students' performance. Other experiences, such as maturation that comes with age and parenthood, were also noted as they generally gave beginning teachers increased ability to manage children.

What was further understood from the participants' interviews was that as they progress through the initial years of their instructional practice, beginning teachers increasingly became reflective, looking back at their practice and engaging in a self-evaluation of their instructional practice. The current research revealed that self-reflection by beginning teachers impacted their confidence for inclusive instruction. Participant #2305 specifically talked about this process as being helpful. When asked about the factors that contributed to their confidence for teaching in diverse classrooms, they said,

> Self-reflection really. Taking the experience of the day, and not just chalking it up to that's what I did today. It was more of a I sat down, looked at the positives of the day,

> looked at the negatives, what could I have done better, because there's been obviously some interactions with students of those diverse backgrounds that didn't go as positively as I'd liked. So, what did I do to influence that kind of reaction? How can I change that for the future? That I found just really helped as well.

Another participant's comment that was indicative of engaging in reflection on their pedagogical practice was,

> Even though I can't pinpoint too many large changes in my beliefs or understandings over the past year, there's been a lot of small changes that have just increased my confidence… the biggest contribution to this confidence is that I have an understanding that if I'm not sure how to tackle an issue in the classroom when I first go in there, I don't need to make an effective change immediately. I just need to start working on an effective change for me to be effective. So, I'm a lot less scared of problems and more ready to accept the challenges that I get with a diverse classroom. (participant #13221)

This individual contemplation allowed beginning teachers to mentally celebrate the things they were doing well, while teaching diverse learners as well as identify areas that needed improvement, thus, feeding into their self-efficacy for inclusive instruction.

**Negative Experiences**

***Factor 6- Instructional Experiences: Facing Challenging Situations within the Classroom***

While beginning teachers referred to their positive instructional experiences as contributing towards their self-efficacy, they also discussed the challenges that they faced while teaching in inclusive classrooms as a significant factor which impacted their confidence negatively. This factor comprised 12 out of the 86 (14%) process codes. Particularly in their first year of teaching, beginning teachers felt that they were on their own and no longer had the

constant advice and backing that they were able to receive as a student teacher during their practicums. Participant (#13047) expressed these feelings sharing,

> It definitely has decreased my confidence of teaching in diverse classrooms. Going through teacher's college, you have this support, you have this safety net of your associate teacher and someone guiding you. And now that I'm in a situation where I'm flying solo… and the little things that I do for my class, any sort of resources or support for them is by me.

They further went on to share,

> I think it's just this idea of myself having my own classroom and how I saw it in my head where there's like rainbows and puppies and we'd all be doing different tasks but getting along. And then the actual reality of my classroom, I'm like okay, those two things don't even resemble each other. That's contributed to the decrease. So, I don't know if it was my own ideals, of how my first year would go.

This suggested that beginning teachers got a reality check when they first began teaching professionally after graduating and that shook their confidence a bit. They recognized that the realities of a classroom differed from what they had perceived when they were graduating from their teacher education programs. The following comment by participant #6135 lends credence to this understanding,

> Making adaptations and plans without an actual student to test them against is one thing, but actually making those plans in the time pressure of planning for one practicum, and then giving those to a student, and then having them work through them while also dealing with a classroom filled with other students, It's definitely a lot larger of a challenge than I appreciated beforehand.

As a result of this gap between what they had theoretically learned and understood and what they experienced in their practice, beginning teachers appeared to learn through trial and error. When faced with a situation in which they had to adapt their lessons or activities, they drew upon strategies which they had heard or read about during coursework. Since they had often not applied those practically before, they learned by implementing them and seeing the students' responses to evaluate if they were executing them correctly or needed to modify their practice. Particularly in situations where their strategies did not work or where they believed they were not supporting their students adequately, new teachers noticed that their confidence level fell. One of the accounts in which this sentiment was voiced was by participant #13047,

> I'm really just trying to ensure that even just my lessons are being, I'm able to reach my students and I'm catering my lessons properly and my assessments are good and the classroom management's there, so when it comes to the differentiation and reaching the students who aren't at grade level, I definitely struggle with that and I'm sad to admit that I've, you know,… besides like the small groupings for literature, math, and that kind of walking around the classroom to make sure everyone understands and then spending some extra time with them, Especially because they're so young that there's no modification for them besides like chunking.

Such thoughts were frequently shared by beginning teachers during their very first year of teaching when they were still learning the ropes and figuring out how to balance the multiple responsibilities that they had: to execute lesson plans, attend to the students, answer their questions, support the ones who were having difficulties, manage the classroom, complete paperwork, collaborate with other colleagues, etc. Participant #7112 gave a glimpse of how overwhelmed new teachers sometimes felt by all these tasks,

> Not only do I have to get all the regular stuff done, but I have to make sure I also see Julia for this and Rachel for that and they need me for this other thing. And then keep it in the back of my mind that Noah might need to take a walk around the hall if he's upset, and I need to remember what his triggers are. And Cameron has a safety plan that I have to remember what the steps are to go through it. It's a lot to take in. (Note: Student names used in the previous quotes are fictional.)

Participant #24005 echoed the same sentiment saying,

> So, I'm all new to everything (laughs). So, just having those daily lessons or even coming up with the assessments and everything that comes with teaching as a first-year teacher on top of it, trying to include all the students, I'm finding that's really challenging.

First-year teachers sometimes also felt underconfident simply due to not having been in the school system long enough. They mentioned that since there was such a diversity of student needs and so many classroom situations that a teacher might have to deal with, they considered themselves to have not been exposed to everything that there was to see (e.g., participants #10208, #5015). Many situations that they had to face daily in the classrooms were still novel to them and they found themselves to be apprehensive while handling them because they had not seen or resolved them before. Participant #6009 shed light on some further challenges that were unique to the first year of teaching, such as not being taken seriously by other experienced teachers when they are suggesting instructional modifications for students with diverse needs or worrying about evaluations on which their permanence in the school is contingent. These kinds of experiences and the loss of confidence associated with them gradually were less commonly shared by second- and third-year teachers who expressed that familiarity with the curriculum and

the sense that they partly knew what to expect helped them feel slightly more confident, if not entirely.

One particular aspect of instructing in a diverse classroom that beginning teachers found especially challenging had to do with the range of diversity within the same classroom. If there were too many students in the same classroom who had high needs or if the range of learning needs was too wide, beginning teachers felt less efficacious about supporting all students in such a classroom. This can be inferred from comments such as the one made by participant #24002 who said, "I feel … it's funny because I feel less confident when it's more of a broad spectrum of abilities and disabilities all in the same classroom." Participant #14006 elaborated further,

> In terms of confidence, I would say that numbers definitely play a big part in my confidence. . . Numbers in the classrooms…So, how many students are in the classroom, and then how many students in the classroom have identified special needs or special learning needs. So, being in private school where the classroom limit is 20 and where I've had as few as 12 students, I find it so much easier to get through to each student and to check on their learning. . . . When I was in public school at the beginning of the year, I was really struggling a lot because it was such a big number of students and there were several students with special learning needs. . . So, I found that that was really where my confidence felt like it was going down is that I didn't feel that I was reaching everyone because my attention was being spread out so thin that I didn't feel that I was reaching out to students individually.

Interestingly, it also appeared that having too little diversity within the classroom was also not beneficial in beginning teachers' view. Such classrooms gave them little exposure to students with varying disabilities and learning challenges, making them feel less prepared and less

confident about being able to instruct them. Issues about lack of diversity were mostly highlighted by beginning teachers who taught in French immersion schools (e.g., participant #5015 and #1034) who revealed that "you don't see near as many diverse needs in the French immersion classrooms" and "those tend to be high achieving classes because… the kids with learning disabilities are often streamed out." This suggested that having an optimal number of students with diverse needs in a classroom was necessary in order for beginning teachers to develop an adequate level of self-efficacy for teaching them.

***Factor 7 – Experiences with Students: Experiencing Setbacks while Teaching Diverse Students***

Another factor having an impact on the development of their self-efficacy that was highlighted by beginning teachers was experiencing setbacks while teaching diverse students. This factor was made up of 5 out of 86 (6%) process codes capturing experiences that beginning teachers had directly with diverse students. While interpreting their accounts, it was gleaned that when beginning teachers encountered diverse students who they could not support successfully, they questioned their own instructional abilities. Very frequently, these were students who had severe disabilities, for example, who had a severe form of autism as shared by participant #13032, and as a result had significant educational needs. Participant #2305 described students who they struggled to support in the following statement,

> So, I was terrified because there's health concerns in that room, there's boundary concerns in that room, there's mental level concerns in that room, and I had no idea what to do for students of that severity. So, I felt that really challenged my confidence.

Students who continued to struggle and demonstrate low achievement despite beginning teachers' efforts and their implementation of various inclusive strategies and/or adaptations were

also ones that beginning teachers felt less confident to support. Some of them tried to rationalize students' continued failure by pinning it on students' own characteristics, such as lack of motivation. A good example of such an underlying justification was observed in the interview of participant #14006 who claimed,

> I think where I do lack confidence is accepting some students' unwillingness maybe to put in that extra effort. You know, you want your students to all be performing. You want them to all have threes in your classes and fours, and you'd stay at recess and work with them and make all the accommodations, but if they are tired, or if they're not interested, or motivated, then despite all of the accommodations or all of the effort that I put into it, they're not always going to get that level three that we hope all our students will meet. So, I think that's where I lack confidence, in accepting what my student's goals are, and helping them. So, I think that definitely it's important for me to motivate them, but I mean to a point, it's students' responsibility too, to set their own goals and say like this is important for me.

Another student characteristic that was noted to adversely affect teachers' self-efficacy was the type and severity of the disability. When referring to groups of students who beginning teachers felt most anxious to work with, the two categories that were mentioned commonly were students who were gifted (e.g., participant #10265, #24009, #12144, #8003) and students with behavioural challenges or aggressive tendencies (e.g., participant #13047, #10206, #12005, #10442, #13095). Expressing a lack of confidence for teaching gifted students, participant #8003 said,

> I don't feel as confident working with students on the more gifted end of the [ability] spectrum. . . . I don't want to just be like, 'Oh go do more work,' but it's hard to know

> how to challenge those students. . . . It's often the students who are on the other end of the [ability] spectrum who get a lot more of the time from the specialist in the classroom, or the district, and who there's already something laid out about like these are strategies that have worked, or these are strategies that haven't worked. I often find there is at least something there, whereas for the gifted students, it's often just like, 'They're really trustworthy, or they're really great, go to them for help,' not how can I push them and help them achieve.

Beginning teachers who had dealt with students who had disruptive behaviours felt less efficacious about teaching diverse students, particularly if they had limited understanding of the students' needs and had experienced negative interactions with those students first-hand. Describing their uneasiness while teaching these students, participant #10206 explained,

> I'm still baffled by the level of violence that's tolerated in the classroom by students. Like I was saying, my classroom gets trashed, and you know, filling out these violence at work reports weekly, so I'm still baffled by these things and to be honest, the violence still frightens me. I think I've said this every time you called, you know, … I'm a teacher, I'm not a punching bag. At the end of the day, that's how I feel. I am not a punching bag, and I shouldn't be accepting this kind of violence towards my body.

It was evident that such experiences with students had a powerful and long-lasting negative impact on beginning teachers' self-efficacy. They stood out as memorable sometimes even a couple of years later (e.g., participant #10206 quoted above) and continued to undermine beginning teachers' confidence for teaching diverse students.

***Factor 8 – Educational/Training Experiences: Feeling Unprepared by Teacher Education***

Once they entered their teaching careers, beginning teachers often considered that their educational programs had not adequately prepared them to teach diverse students. This factor, although seemingly small with the two out of 86 (2%) process codes that it comprises, had noteworthy implications for participating beginning teachers' self-efficacy. It is important to point out that participating graduating teachers by and large found the educational programs beneficial and only occasionally expressed some minor dissatisfaction. They mostly deemed their education and training to be a confidence booster. First-year, second-year, and third-year teachers on the contrary, noticed gaps between what they had learned and what they were experiencing in the classrooms. As they started to interact with different kinds of learners with various disabilities (e.g., autism, attention deficit hyperactivity disorder, learning disabilities, communication challenges, hearing and visual impairments, motor challenges) in the classroom, they realized that their teacher education programs had a narrow scope. Expressing dissatisfaction with their program, participant #10442 commented, "we needed to learn about these other behavioural issues and even the psychology of the students. We didn't learn anything about the psychology at all. During our two years in university and that's very, very important." Participant #7112 further shared while describing their program,

> We didn't spend as much time as I wanted, and I understand why they did it, but in many cases, they had to choose one disability or exceptionality from a list of many, or it was assigned to us. So, I remember doing something on dysgraphia, but I'm way more likely to see students who have Autism or ADHD and so I would have preferred to know about that than about dysgraphia…So yeah, we had specialized projects, but I felt like we didn't cover enough.

Similarly, participant #1034 criticized,

> My class work hasn't prepared me for all the things that I'm going to need to know in order to help and support the students… I would say that we didn't spend a lot of time…we had courses devoted to diverse learning and mental wellness and all kinds of things like that, but we didn't always spend a lot of time with each kind of section on actual strategies we could use in my Ed degree.

Echoing the same thoughts, participant #12046 expressed,

> I didn't feel like I had any real preparation given to me in my teacher ed program. In my teacher ed program I was pretty disappointed on that end of things… I felt, so the program I was in, I felt I had one course that was particularly helpful to me which was the science curriculum course where we went over all of the curriculum and learned how to run labs. And we got to run demonstrations for a class and how to get them hooked in. And it was very much practical and doing lesson plans that may seem that I would then use in the future. The remainder of the classes that I took were very much just very theoretical or impractical, giving information but nothing to do with the information. And so, I felt they weren't useful to me.

These comments revealed that beginning teachers felt that their educational programs had a heavy focus on the theory of inclusive instruction but lacked opportunities for practical application. They believed that the programs merely made them aware of classroom diversity, but did not necessarily equip them with the tools and strategies which they can implement in order to support that diversity. This lack of knowledge about different learning needs and feeling of unpreparedness shook their confidence in their instructional abilities as new teachers.

### *Factor 9 Experiences with Colleagues: Feeling Unheard and Unsupported by Colleagues and Other Stakeholders*

The ninth factor that emerged as influential for the development of beginning teachers related to them feeling that they were not being adequately supported by their teacher colleagues, administration, paraprofessionals they worked with or parents of the students they taught. This factor, with only 2 out of 86 (2%) process codes, was expressed less frequently as compared to the others. However, the codes it comprised and the experiences those codes captured reflected that even though such incidents in which beginning teachers felt unheard and unsupported happened occasionally, they had a prevailing impact and made them feel less confident about their teaching abilities for inclusive instruction. Beginning teachers shared that when collaborative relationships were lacking or there were communication gaps between them and the administration or their colleagues, their self-efficacy was shaken. Illustrating such relationships and environments that undermined their self-efficacy, participant #13032 stated,

> I think the teachers were bogged down into their own problems and complaints, not much empathy. And I think if you're a teacher working that hard, trying your best, you know you can do that. But there's also a big challenge of getting other teachers on board because you need their help in terms of resources, you know, even getting technology, all that kind of stuff, you need some other people to buy into it right?

Lack of teamwork (e.g., participant #14010) and inadequate emotional and personnel support from the school administration and the district (e.g., participant 13095) were also cited as experiences with colleagues that beginning teachers felt negatively affected their self-efficacy. Further, beginning teachers felt very discouraged and underconfident when parents questioned their intentions and willingness to support the inclusion of diverse students. Confrontations with

and criticism from parents did not help teachers' self-efficacy. On the contrary, it made them feel devalued and unappreciated and shook their confidence for inclusive practice. While talking about a particular case in which they had to deal with parental resentment, participant #10206 shared,

> Every effort we made. . . for the success of this child… her parents said we were setting their child apart. We were not, she was never going to get better. . . . She was very aggressive and the parents, with every effort we made, but for them they saw it as we were preventing her from being part of the group. . . . They didn't approve of that. They didn't think any of our comments were justified, and any of our actions were justified, in fact, they were all wrong. We were terrible people for wanting to, you know. . . that, I guess, contributes to my level of confidence.

In situations like these, where students had intensive needs, or where parents of students were not cooperative, supportive relationships with colleagues were even more critical. If beginning teachers felt that when faced with such criticism from parents or while struggling to effectively support a student, they did not have colleagues who would lend an ear or a shoulder to cry on, their confidence for teaching diverse students decreased. Similarly, not have the backing of the administration in such experiences was also found to be detrimental for beginning teachers' self-efficacy. It was also noted that accounts of situations where they did not feel heard or supported were usually shared by graduating teachers about their practicums or new teachers in their early days of employment at a particular school.

***Factor 10 – Personal Experiences: Dealing with Personal Uncertainties and Frustrations***

The final factor that was discovered as having an influence on beginning teachers' self-efficacy for teaching in diverse and inclusive classrooms had to do with the personal

uncertainties and frustrations that they felt while instructing in those settings. This factor was made up of 2 out of 86 (2%) process codes which reflected such personal attributes. Several participating beginning teachers' accounts had an undertone of doubt and skepticism. For some beginning teachers, this skepticism about their abilities arose out of an understanding that inclusive teaching is a complex, multi-dimensional, and challenging task which requires extensive experience, skill, and knowledge which they simply do not possess. This thought was expressed by participant #14010, "Teaching is a really tough profession and I'm not very confident in teaching in a diverse learning environment because I just feel like it's never going to be good enough, … And I'm not sure if I'm ever going to get better at it." Similarly, participant #11138 shared, "I'm only doing half of what I should be doing, I feel. So, I feel like there's a huge part of teaching that I haven't even touched," indicating the vastness of the profession and the abilities and knowledge it requires. Further clarity and support for this sentiment was expressed by participant #12124,

> I just feel like I still have a lot of questions around supporting diverse learners. For example, I'm curious about the way in which I engage in differentiation. How do I properly report student's learning especially when the program has been adapted or modified? How best to instruct E.A.s and support those E.A.s in the room, the education assistants? How much support to give different students? What about those students who are non-verbal or on completely modified programs? What are the best practices for Individual Education Plans? How to support other specific exceptionalities like autism, or specific learning disorders.

Since inexperienced teachers believed that inclusive teaching had many facets, they often experienced a general sense of inadequacy and unsureness regarding their own abilities when

they were new to the profession. This unsureness was manifested in the precariousness of their self-efficacy which was observed when participant #24002 commented, “You start to think you're doing really, really good things and you can have one day where it kind of destroys that confidence or makes you really start to question what you're doing, how you're doing it and why you're doing it.” The precariousness was further discussed by participant #24002 who explained,

> It's daunting. . . some days I feel it's yes, I feel confident. Other days I don't, and I feel like I'm not a good teacher because I'm not able to keep a handle on those kids that you know, you sort of look at. . . . Say for drama class. I teach Grade 2 drama and I see videos of classrooms with a classroom and a teacher, and all the kids are sitting patiently, and they're waiting with their hands in their laps, and they do this brilliant activity, and they have so much fun. Then I try it in my classroom, and it completely falls apart and it doesn't work. So, the confidence piece is shaky; definitely shaky right now.

Some beginning teachers were also skeptical regarding their self-efficacy because they felt frustrated with the education system and the policies and procedures which they believed hindered inclusive instruction. Expressing their frustration, participant #8003 remarked,

> I would say that my confidence has actually decreased. That relates back to what I’ve been sharing about just feeling more sure, if you can be sure of anything, that the framework in the system is not conducive to what they say they are trying to accomplish with inclusion. And not having adequate support in the classroom to make it a reality because I do think that inclusion can totally, is beneficial and would work if there were smaller class sizes, if there was more support not just from the teaching role but maybe more classroom educational assistants, or really looking at schools not as these independent institutions but more in a community collective sense.

Participating beginning teachers were exasperated by the high number of students with severe developmental disabilities that were being clustered in the same classroom (participant #24010), lack of personnel support to assist with diverse students inside classrooms (participant #24002), and the existing policies and procedures to guide teachers on how to handle students with severe behavioural challenges (participant #10206). It was discouraging for these beginning teachers to realize that despite their own commitment and effort towards inclusive education, it was hard to achieve full inclusion due to systemic barriers and this undermined their self-efficacy for it. What was also observed was that early on, that is, in the very first year of their practice, beginning teachers felt more unsure about their own knowledge and skills for teaching in inclusive classrooms and this impacted their self-efficacy. However, as time went on, that is, by the third year of teaching, beginning teachers' personal frustrations which influenced their self-efficacy stemmed from their dissatisfaction with the education system at large.

**Changing Role of Factors Influencing TSE During Early Years of Practice**

A frequency count of the codes revealed that "gaining practical instructional experience" was most commonly identified by beginning teachers as a contributing factor to the development of their self-efficacy for teaching in diverse classroom. Comments or statements that had an underlying meaning captured by this code were made by 63.46% of graduating teachers, 74.46% of new teachers in their first year of teaching, and 65.21% and 70.58% of beginning teachers in their second and third year of practice, respectively. Looking at the top ten most frequently occurring codes for each round of participant interviews (see Appendix B), it was observed that the codes depicting both positive and negative instructional experiences inside the classroom were dominant across all four time points when teachers were interviewed. Two of the most frequent codes for graduating teachers were categorized under the broad factor, "gaining

instructional practice within the classroom", whereas two fell under "facing classroom challenges", making a total of four out of the top ten codes from the instructional experiences domain. For first -year and second-year teachers, six out of ten codes were from the instructional experiences domain. However, an interesting observation was that for first-year teachers, two of these codes were positive and were categorized under "gaining instructional practice within the classroom"; whereas four had a negative connotation for them and were sorted under "facing classroom challenges". However, this switched for second-year teachers for whom four of the most frequent codes captured positive and two captured negative instructional experiences. In the case of third-year teachers, three out of the top ten most frequently emerging codes belonged to the "gaining classroom instructional experience" factor and one was from "facing classroom challenges", making a total of four codes from the instructional experiences domain.

By analyzing the remaining of the top ten codes from each group of beginning teachers who took part in the study, it was determined that for graduating teachers, "acquiring relevant education and training" appeared to be significant with four out of the top ten codes belonging to this broader factor. For first and second-year teachers, positive experiences with colleagues and other professional started to emerge more frequently with three out of the top ten most frequent codes referring to "receiving support from colleagues, school administration, and other professionals". This suggests that the support, advice, encouragement, and feedback of fellow teachers, paraprofessionals, educational assistants, and school administration was a powerful influencing factor for their self-efficacy. By the time teachers reached their third year of practice, even though experiences with colleagues still remained prevalent, experiences with students also began to gain prominence in the responses and accounts of participating teachers. For third-year beginning teachers, two out of the top ten codes were relevant to "building positive relationships

with students with diverse needs", reflecting that their direct experience working with students with diverse needs and the connections they formed with these students boosted their confidence in teaching in diverse classrooms. Teachers expressed that through getting to know and forming relationships with the students, they were able to better determine their needs and address them appropriately.

## Chapter 5 Discussion

Teacher self-efficacy or confidence has gained significance in the scholarly literature as a critical determinant in the successful implementation of inclusive education (Kiel et al., 2019; Klassen et al., 2011; Sharma et al., 2012; Zee & Koomen, 2016). While researchers have been actively investigating predictors of the construct using quantitative methods, they have not adequately explored its potential sources (Wyatt, 2014). Considering that inclusive education has benefits for all students with and without disabilities (Evins, 2015; Lindsay et al., 2014; Rea et al., 2002; Kalambouka et al., 2007; Szumski et al., 2017) and the movement has been gaining traction, it was important to take a qualitative look at the factors or experiences that impact teachers' confidence to engage in inclusive instructional practices. Furthermore, since there exists some evidence that teachers' confidence for inclusive practice declines when they first start to practice professionally (Gokdere, 2012; Hoy & Spero, 2005; Mintz, 2019), there was also a need to directly ask teachers who had just graduated and were starting their careers about their experiences, in an effort to understand the reasons for this decline. These areas of inquiry were addressed through the present qualitative study and factors influencing beginning teachers' self-efficacy to teach diverse students were ascertained. What follows is a discussion of the results along with their significance and implications for educational practice both at the teacher preparation or education level as well as in schools. Knowing more about the experiences that contribute to or undermine teachers' confidence for instructing diverse students is useful for teacher educators and school leaders. This knowledge can guide them in designing education and training opportunities, facilitating collaborative interactions, creating supportive classroom environments, and providing beneficial resources which can potentially mitigate the effect of the

negative influencing factors that contribute to a decline in teachers self-efficacy in the early years.

**Maintaining a High Positive-to-Negative Experiences Ratio**

When interviewed and provided with the opportunity to share factors that influenced their confidence for teaching in diverse classrooms, beginning teachers shared both positive and negative experiences in a variety of domains, including their educational context, instructional context, and personal lives as they graduated from their education programs and while they were in their early years of practice. Along with these experiences, they also had both positive and negative interactions with their colleagues and school administration, as well as the students they taught. As depicted by the PNEB model, these opposing experiences happened simultaneously and exerted a collective influence on their overall sense of confidence to teach diverse students. While coding and categorizing the experiences narrated by beginning teachers in their interviews, it was noted that they underwent many more uplifting situations as compared to instances which dampened their confidence. The positive process codes outnumbered the negative codes by a ratio of 3 to 1. What was also clearly evident though, was that despite being fewer in number, the negative experiences had a more intense and lasting adverse impact on beginning teachers' self-efficacy. Previous research suggests that generally, 'bad' is stronger than 'good' in a wide range of psychological phenomenon including trauma effects, learning processes, close relationship outcomes, interpersonal interactions, and human emotions (Baumeister et al., 2001). The findings of the present study further support this notion. Baumeister et al. (2001) claimed that if there existed an equal number of 'good' events (that provide happiness and satisfaction) and 'bad' events (that create unease and discomfort), the psychological effect of the 'bad' ones would be greater due to people's propensity to pay greater

attention to negative information. It is adaptive for people to have a heightened awareness of negative information as it is indicative of a need for change and encourages them to act (Baumeister et al., 2001). This suggests that beginning teachers in this study remembered the negative experiences that they had during their early years of practice more vividly because those experiences made them feel less confident and unprepared for teaching in diverse classrooms. It could be that facing some challenges and setbacks during their initial years was a motivator for them to continue to develop their knowledge and skills further so that they could replace this feeling of unpreparedness with that of greater confidence or self-efficacy.

It also appeared that beginning teachers needed to have many positive experiences to offset the damaging influence of a single negative situation that they faced in their classrooms. This is consistent with existing research that asserts that a high positive-to-negative ratio of experiences, interactions, and events needs to be maintained for assuring desirable outcomes in a variety of domains from education to employment (Baumeister et al., 2001; Flora, 2000; Sabey et al., 2019). Pre-service and in-service teachers have been taught to maintain a 4:1 or 5:1 ratio of positive to negative interactions with their students to promote academic engagement and to reduce disruptive behaviours (Cook et al., 2017; Marchand-Martella et al., 2010). While not measured in the present study, it may be that receiving a similarly high ratio of positive-to-negative experiences from their colleagues, students, and other individuals they work with, would help them feel more efficacious about their inclusive practice.

### *Implications*

At the start of their careers, beginning teachers are similar to students in many respects as they, too, are learning about the skill of instruction. Just as their students need reinforcement, praise, and approval to counterbalance any criticism or negative feedback, they also require

encouragement, recognition, and validation from their superiors or more experienced colleagues who serve as their mentors. Such positive feedback is needed on a frequent basis and in large amounts to compensate for the few negative instructional and student experiences which are inevitable during daily instruction, but that can really shatter beginning teachers' self-efficacy for teaching diverse students. School leaders should keep this in mind and should make a conscious effort to maximize the positive experiences that beginning teachers have by acknowledging their efforts, providing encouragement, and offering assistance. They must keep lines of communication open so that beginning teachers feel comfortable sharing their challenges and negative experiences with them. When school leadership becomes aware of a new teacher having experienced a negative interaction with students or their colleagues, they must ensure that they provide enough positive support to offset its detrimental effects on the teacher's confidence for teaching diverse students. This could be in the form of specific guidance on how to manage a similar situation in future, reassurance and understanding for the new teacher's challenges, and creation of a safe space where the new teacher can express their concerns freely.

**Experiential Factors that are Sources of Beginning Teachers' Self-Efficacy for Inclusive Practice**

The analysis of the conversations with beginning teachers in this study provided much-needed insight into potential sources of teacher self-efficacy uncovering factors that had not been identified in the extant literature. In gaining further understanding of the factors that influenced beginning teachers' confidence for inclusive practice, it also became clear why contradictory findings were sometimes found in the literature regarding a couple of predictors of teachers' self-efficacy, such as teacher education and training and prior experience with people with disabilities. Interestingly, the provincial context, which was expected to have a possible

influence on teacher self-efficacy, was not discussed by participating beginning teachers as one of the factors that impacted their confidence in the early years. It was anticipated that since education is provincially regulated in Canada and every province and territory forms its own policies governing inclusion of students, beginning teachers may reveal how the regulations and policies they work within either bolster or hamper their self-efficacy for inclusive practice. However, this was not the case. Provincial policies and context were not explicitly mentioned by beginning teachers in their interviews. It could be posited that for neophyte teachers, their more immediate context, that is the school or school district that they are working in, is more significant. As they gain experience, they might become more familiar with their broader provincial context and its strengths and limitations, and it may begin to have an impact on their self-efficacy later in their careers rather than in the initial years. It could also be supposed that beginning teachers are under the assumption that provincial policies are similar across different provinces and are already being adhered to until they progress further in their careers and interact with their counterparts practicing in provinces different from their own. Several other experiences that impacted beginning teachers' self-efficacy were revealed in this research though, and they help describe how their confidence for inclusively instructing all students develops.

### *Instructional Experiences in the Classroom*

The results reveal both positive and negative aspects of instruction that beginning teachers experienced inside the classroom and that were found to be instrumental in shaping their confidence. With every passing day of professional teaching, the time that beginning teachers spent inside classrooms actively instructing diverse students increased. This increased instructional and contact time with students was beneficial for their skill development and, in

turn, for their self-efficacy because it gave them hands-on practice in teaching. Pre-service teachers have previously found field experiences of longer duration to contribute positively to their self-efficacy (Specht et al., 2016; Specht & Metsala, 2018). Beginning teachers in this study endorsed the significance of daily instructional practice for fostering their confidence, as greater time in the classroom exposed them to a variety of students to teach and situations to manage. As beginning teachers experienced opportunities to consistently spend time in the classrooms when they first transitioned from their pre-service phase to their teaching careers, they also received what Mintz (2019) called a 'reality shock'. They recognized that the perceptions that they held regarding their instructional experience while they were graduating were perhaps too idealistic, contributing to an inflated sense of confidence in their abilities. The reality of actual classrooms had many more challenges than they had anticipated, including limited resources, struggling students, extensive workload, etc. When beginning teachers initially came face-to-face with these instructional issues, their self-efficacy for teaching diverse students declined. Additionally, having either too little or too much diversity in the same classroom impacted teachers' self-efficacy negatively. Classrooms which were too homogenous did not provide beginning teachers with sufficient exposure to students with a range of disabilities and consequent learning needs, reducing their confidence in instructing them in the future. Lack of diversity is a common issue in French immersion schools, in particular, where students with disabilities are often discouraged and recommended to opt out (Delcourt, 2019). In the present study, beginning teachers who started their teaching careers in French immersion, felt less efficacious about teaching diverse students because they simply did not have enough practice teaching them. On the flip side, classrooms with too many students who have special educational needs or classrooms with a wide range of learning needs were also not conducive for building beginning teachers' self-

efficacy. Beginning teachers felt overwhelmed, stressed out, and overworked in such environments, especially if they did not have other support personnel assisting them during their classroom instruction.

**Implications.** This finding suggests that having an optimal number of students with diverse needs in a classroom was necessary in order for beginning teachers to develop an adequate level of self-efficacy for teaching them. It is important to recognize that determining the ideal number of diverse students may be difficult as it may vary from teacher to teacher. Furthermore, maintaining such a number may also not always be logistically possible, as refusing to place students with diverse needs in a particular classroom simply because there are already several other students with disabilities present, goes against the principles of inclusive education. What is critical is that teachers are consulted regarding decisions about student numbers and are provided adequate support and resources to manage diverse classrooms. Relying on the natural diversity that exists within classrooms rather than specifically assigning students to them would avoid clustering of students with intensive needs, thereby preventing teachers from feeling unduly overwhelmed.

### *Experiences with Students*

Research establishes that direct experience teaching students with diverse needs plays a role in the development of teachers' self-efficacy for instructing them inclusively (Loreman et al., 2013; Malinen et al., 2013). In some studies, teachers have reported that directly working with the students who have diverse needs raises their self-efficacy for inclusive practice (Malinen et al., 2013; Specht & Metsala, 2018); whereas in other studies, prior experience with students with disabilities has been found to lower their confidence (Chao et al., 2016; Savolainen et al., 2012). The accounts of the participating beginning teachers in this research confirmed the

influential role of experience with diverse students. Additionally, their remarks provided some clarity as to why and how such experiences could serve as both favourable and unfavourable for teachers' self-efficacy. Elaborating on the nature of those experiences, beginning teachers explained that the experiences were a combination of encouraging and disheartening interactions. There were times when beginning teachers were able to develop a healthy relationship with the diverse students and were able to support and instruct them effectively. In those situations, the students also demonstrated progress, and this gave the teachers confidence in their teaching ability. The development of a healthy relationship with the diverse students was contingent on the time and effort the teachers invested into it. Often at the beginning of a school year, they had limited knowledge of the students' learning needs; but as the year progressed, they were able to put some plans into action and observe the results. There were other times when teachers struggled to find appropriate strategies to help students improve their academic and behavioural skills. They shared that they mostly found it difficult to effectively support and include students with behavioural challenges, students who had significant needs, or students who were gifted. Beginning teachers who had to deal with students' aggression and classroom violence or had experienced less success in improving the behavioural or academic performance of diverse students who they taught, found their previous experience with diverse students to be an undermining factor for their self-efficacy for teaching those students in the future. It was understood from these accounts that the nature of the student experience determines whether it helps or hinders beginning teachers' self-efficacy for teaching in diverse classrooms. Different kinds of experiences with diverse students can exert a different influence.

**Implications.** Since students who have severe behavioural challenges, students who have significant needs, and students who are gifted are groups of students who beginning teachers

have identified as ones that they find particularly challenging, it is important that they are taught specific evidence-based strategies to manage and support them. A greater theoretical and practical focus on instructing these students in teacher education programs may increase beginning teachers' confidence in understanding and teaching them. Before they graduate from their teacher education programs, beginning teachers should be given an opportunity to work with students with these particular diverse needs under the supervision of more experienced teachers or mentors so that they can learn how to include and instruct them in regular classrooms. This will likely prevent them from feeling ill-equipped when they first encounter these diverse students once they start practicing. School districts and school boards also need to ensure that teachers have additional human and physical supports in classrooms which have diverse students with intensive needs. While all students, including those who have significant behavioural challenges must be included in regular classrooms, there need to be policies put in place under which teachers feel safe and protected from classroom aggression.

***Educational and Training Experiences***

Many quantitative studies (e.g., Peebles & Mendaglio, 2014; Rakap et al., 2017; Zagona et al., 2017) reveal a correlation between teacher education and training and teachers' sense of efficacy for inclusive practice. Interview responses from beginning teachers in this study provided both support and clarification for this association by illuminating particular aspects of their teacher education and training that they found useful and the ones that they felt could have been improved. Within the larger group of beginning teachers, graduating teachers were the ones that found their educational and training experiences to be most influential and beneficial for their confidence for inclusive practice. Consistent with Peebles and Mendaglio's (2014) findings, inclusion-specific coursework and field experience that provided opportunity for beginning

teachers to apply what they were learning were regarded as beneficial to developing teacher self-efficacy. Graduating beginning teachers believed that having taken a couple of courses that focused on learner diversity, special educational needs, educational psychology, and inclusion exposed them to relevant research in the field and gave them adequate foundational knowledge about how to manage diverse students and how to support them. Graduating beginning teachers perceived that they could draw from this knowledge while instructing diverse students inside a classroom and gained confidence from this perception. The field experience or practicum components of their educational program solidified that knowledge, as it provided them opportunities to see the theoretical knowledge being implemented. The more time they spent on practicum, the more confident they felt. For the time that beginning teachers were on practicum, they were able to observe inclusive strategies being implemented by other teachers and were able to personally practice executing them, as well.

It was not until they entered their first year of professional practice that beginning teachers began to recognize a gap between what they had been taught and what they were professionally required to do. It was at this point that beginning teachers first realized that their education and training had not provided them with a realistic view of what their day-to-day routines and responsibilities as a practicing teacher would be like. In their own classrooms, beginning teachers experienced much greater responsibility than they were provided during their time on practicums. When required to address a wide variation of learning needs and challenges on their own, beginning teachers realized that their inclusion-related coursework had not sufficiently familiarized them with diverse student needs. The courses were limited in both depth and breadth in terms of coverage of student disabilities. Moreover, the content covered provided very little information about the pedagogical strategies that could be used to support specific

kinds of special educational needs. The lack of preparedness and low levels of self-efficacy that beginning teachers felt in their initial years motivated them to engage in ongoing professional development targeting inclusive instruction. They shared that it encouraged them to seek out workshops, certifications, additional qualifications, books, websites, and other resources which would help them bridge this gap in knowledge and understanding.

The scholarly literature reveals conflicting evidence with regard to the effect of courses of longer duration on teachers' self-efficacy. Lancaster and Bain (2007) found that pre-service teachers felt more efficacious about interacting with diverse students after completing a 13-week course focusing on inclusion. On the contrary, Woodcock et al. (2012) found that taking a 5-month long inclusion course did not increase pre-service teachers' efficacy for inclusive practice or reduce their concerns about inclusive education. The dissatisfaction that beginning teachers participating in the present study expressed with their education and training once they started practicing may explain why sometimes courses of longer duration (e.g., Woodcock et al, 2012) may not raise teachers' self-efficacy for inclusive practice. Unless a course covers many different kinds of student educational needs (i.e., especially the high incidence student needs teachers are more likely to encounter in their classrooms), beginning teachers would not gain self-efficacy from completing it. For coursework to be useful in guiding beginning teachers in their practice, it must focus adequately on instructional strategies to support various educational needs and provide sufficient hands-on opportunities to practice implementing them.

**Implications.** In light of this understanding, teacher education programs need to review their curriculum to ensure that the coursework is covering various kinds of special educational needs and disabilities along with practical instructional strategies for supporting them. The coursework should also be supplemented with an increased number of days that beginning

teachers spend on practicum. In addition to having several short practicum placements which give beginning teachers a chance to work in different educational settings, they should also have the opportunity to engage in additional practicum placements that stretch over longer durations. Currently, Ontario and British Columbia, the two provinces that are most heavily represented in this study's sample, require teacher candidates to complete 14 weeks and 12 weeks of practicum, respectively, as part of their teacher education programs (Ontario Ministry of Education, n.d.; Province of British Columbia, 2019). This includes an extended practicum of at least 8 weeks (Ontario Ministry of Education, n.d.; Province of British Columbia, 2019). Considering that beginning teachers have reported practicum placements to be valuable for their self-efficacy for inclusive practice, especially when they extend beyond a month (Specht et al., 2016), it may be beneficial to lengthen the duration of this extended practicum so that it covers an entire school semester with the students. Such a practicum of a longer duration would provide graduating beginning teachers enough time to get to know the students, develop a relationship with them, and put plans in place to support them. It would further provide them with a more realistic sense of their instructional role in actual classrooms and equip them to enter their professional careers with greater confidence. It is also important for faculties of education that offer teacher education programs to establish partnerships with schools which have diverse learners so that graduating beginning teachers can be placed in those settings for their practicums.

***Experiences with Colleagues***

Through conversations with beginning teachers in this study, it became evident that both positive and negative experiences and interactions that they had with their colleagues, school administration, parents, and other paraprofessionals with whom they worked had a noteworthy influence on their self-efficacy for inclusive practice. In their research with pre-service teachers,

Tannehill and MacPhail (2014) found that discussions with their peers during their teacher education programs, particularly with their associate teachers and supervisors during their practicum placements, strongly shaped their beliefs about teaching and learning. Graduating beginning teachers participating in the present study endorsed this finding. For them, their mentor or associate teachers were a vital resource from whom they learned about inclusive pedagogy. By being in the classroom with these more experienced teachers, observing them teach, and also teaching under their supervision, beginning teachers gained a lot of confidence for teaching diverse students. Additionally, beginning teachers in their first, second, and third year of teaching also considered their teacher colleagues to be an important source of information and guidance, depending heavily on their advice and recommendations. It was noted that the support of teacher colleagues was particularly valuable for beginning teachers during the first couple of years of their careers. During these initial years, new teachers relied on what Bandura (1977) termed as vicarious experiences in which they learned by observing more experienced teachers. These vicarious experiences compensated for beginning teachers' lack of mastery experiences during their initial years of practice which Bandura (1977) described as being positive, practical, and hands-on in nature. Beginning teachers, being new to the profession, frequently learned by watching what inclusive strategies other teachers were adopting in their classrooms and which ones were working for them. They then tried to follow similar instructional techniques in their own classrooms.

Apart from learning by observing fellow teachers, beginning teachers also considered the encouragement, validation, appreciation, and tangible resources that they received from the people who they worked with to be a positive source of self-efficacy. This positive feedback helped beginning teachers feel that they were surrounded by a supportive network of

professionals. Healthy, collaborative relationships with colleagues within a supportive working environment have been established to be important for inclusive education (Ainscow & Sandill, 2010; Hoy & Spero, 2005). Somma and Bennett (2020) assert that "guidance from colleagues, support from administration and specialists in Communities of Practice or Professional Learning Communities within their school or school board" (p. 287) is important for teachers as they embraced inclusive pedagogy. Hoy and Spero (2005) further discovered that new teachers' level of self-efficacy for inclusive practice was correlated with their perceptions of the level of support they received in their instructional context. The accounts of the beginning teachers in the present study confirmed that knowing that they are surrounded by like-minded professionals who understand their challenges and are willing to support them through their struggles as new teachers gave them tremendous confidence in their abilities to teach inclusively. In instances where such support and encouragement from colleagues, school leadership, paraprofessionals, or parents was lacking, beginning teachers' self-efficacy also suffered considerably. In the absence of this support, they felt that they were alone in resolving their classroom challenges and were doubtful in being able to handle classroom diversity effectively. Beginning teachers felt quite vulnerable in the early years of their practice. They also reported that their confidence was easily shaken if they heard critical or discouraging comments from parents or colleagues during this time. As stated previously, it was mostly graduating teachers on practicums or beginning teachers who were just starting employment at a particular school who shared stories in which they felt a lack of support from people in their work environment. This seems to indicate that when beginning teachers are new to a school environment, they are unfamiliar with policies, procedures, and routines being exercised in that school culture and feel that they are not fully informed or guided in their day-to-day practices. Further, they find it

difficult to be accepted and become part of the school network because existing school staff already have established groups and friendships. It is possible that as beginning teachers spend more time at the schools where they work and get to know their colleagues better, they would develop a stronger and a more supportive network of professionals around them.

**Implications.** Keeping in mind the vulnerability of beginning teachers at the start of their careers, it bears emphasis that they be provided the encouragement and support that they need in order to feel more confident and self-assured. Existing school staff must create a welcoming environment for beginning teachers and regularly check in with them to offer assistance and collaborate with them. School leadership must provide direct mentorship by pairing them up with a more experienced teacher at the school. Since collaboration between teachers is most helpful when it is contextually relevant (William, 2016), it is recommended for beginning teachers to be partnered with others teaching the same grade level or subject, who can take them under their wing and guide them in the first couple of years as they familiarize themselves not just with their own responsibilities as a teacher, but also with the school and its policies.

### *Personal Experiences*

Participating beginning teachers revealed an array of personality strengths and weaknesses along with positive and negative personal experiences that they considered to be instrumental in molding their self-efficacy for inclusive instruction. While traits like patience, openness to experience, persistence, flexibility, innovative problem solving, and advanced planning were viewed as being beneficial for self-efficacy; uncertainty, fear of working with new people, fear of making mistakes, anxiety, and hesitation in asking for help were considered detrimental to self-efficacy. Interestingly, it was through personal self-reflection that beginning teachers evaluated themselves as possessing these helpful or harmful personality traits. Recent

work by Somma and Bennett (2020) revealed that pedagogical self-reflection was instrumental in driving a change in teachers' overall beliefs about inclusion and the instructional methods they adopt. The current research found that self-reflection by beginning teachers also impacted their confidence for inclusive instruction in addition to their beliefs and practice. By reflecting on their instructional behaviours and interactions, beginning teachers were able to identify areas of change and work on improving themselves professionally.

When beginning teachers were new to the profession, they were overwhelmed by the complexity of the task of teaching all students. They largely recognized the inadequacy of their professional experience at this stage of their practice; but depending on their individual personalities, responded to the challenge differently. Beginning teachers who were willing to take risks, try out new things, and learn from their mistakes took it in stride and emerged as more confident in their abilities. On the contrary, those who felt frustrated, anxious, or unsure of themselves, expressed lower efficacy for teaching diverse students.

It was also striking to see that as beginning teachers gained professional experience, their frustrations had less to do with their own lack of skill or experience and more to do with systemic barriers and limitations to inclusive education. As beginning teachers spent more time in the teaching profession, they began to detect system-level constraints which hindered effective implementation of inclusive education. As previously identified by Pappas et al. (2018), insufficient funding, lack of planning time, inadequate specialized support, and unavailability of teaching materials and other resources were significant barriers to effective inclusion of diverse students. Beginning teachers in the present study agreed that the absence of these resources discouraged them in their pursuit of inclusive pedagogical approaches making them feel less efficacious as they believed that they would not be successful in teaching diverse students

inclusively without the necessary structural supports in place. They believed that the provision of such supports and resources was the responsibility of their school administration and could be addressed at the school level, indicating that they did not yet recognize or fully understand the constraints that provincial policies placed on acquisition of resources which facilitate the effective implementation of inclusive education of diverse students.

**Implications.** Considering that systemic barriers make beginning teachers feel unsure and reduce their self-efficacy for teaching in diverse classrooms, school leadership must ensure that their schools are well-resourced with teaching materials and paraprofessionals who can provide instructional support to teachers in their early years of inclusive teaching. Since teachers consider the advice and views of their colleagues to be more valuable than information they learn from research articles and during their teacher education (Guckert et al., 2016), school leaders must build planning time within the daily schedule during which beginning teachers can collaborate and consult with other teachers and benefit from their experience and knowledge (Hood, 2016). School leaders must also be made aware of beginning teachers' tendency to frequently question themselves and feel nervous in novel situations which leads to lower their self-efficacy. Once school leaders are attuned to the tentativeness that beginning teachers may experience, they could ensure that they offer additional emotional support to those teachers to help them overcome their apprehension and uncertainty.

## Changing Role of Factors Influencing Teacher Self-Efficacy During Early Years of Practice

The factors influencing beginning teachers' self-efficacy for teaching diverse students identified in the present study can be classified into the four sources of self-efficacy outlined by Bandura (1977) namely, mastery experiences, vicarious experiences, social persuasion, and

somatic and emotional states. It appears that the significance of each of these four sources of self-efficacy changes for beginning teachers when they are graduating and during the first three years of their careers. The instructional experiences that beginning teachers gain inside the classroom and the challenging situations that they face while teaching could be considered mastery experiences as they provide beginning teachers with the most authentic opportunities to take on new responsibilities and practice their skills in successfully instructing diverse students. These mastery experiences are vital for beginning teachers' confidence throughout their initial teaching years. However, since they do not have enough of such experiences when they are graduating or are in the first year of their career, they rely on other sources of self-efficacy at this time, including vicarious experiences and social persuasion. During the first and second year of their practice, beginning teachers are able to build their confidence by observing their more experienced counterparts and learning vicariously from them. Additionally, the support and encouragement that they receive from their colleagues and school administration serves as a form of social persuasion, as it convinces them that they are effectively implementing pedagogical strategies, managing classrooms, and engaging diverse students. By the third year of teaching, beginning teachers also begin to rely on direct feedback from students as an additional form of social persuasion for assuring them that they are successfully including diverse students in their classrooms. It may be that by this time in their careers, beginning teachers have accumulated enough instructional contact with students with diverse needs for them to feel comfortable and confident in interacting with them and asking for their feedback on instructional strategies that they are trying out. This may be why experiences with students emerge as a potential source of confidence for beginning teachers by this time. Throughout the first three years, beginning teachers' individual traits and personality strengths generate emotional

reactions and physical states within them as they go about their daily instructional routines. Those who have a general tendency to be fearful of making mistakes experience elevated levels of stress or anxiety; whereas the ones who are open to new experiences are more likely to remain calm and relaxed. These physical and emotional states also serve as a source of self-efficacy for beginning teachers as they help them determine their instructional capabilities in diverse classrooms throughout their initial teaching years.

**Explaining the Complex Growth Pattern of Beginning Teachers' Self-Efficacy**

Evidence for the uneven growth pattern of teacher self-efficacy for inclusive practice during the initial teaching years established a need to find explanations for the gains and declines in confidence that teachers experience when they first started practicing. Hoy and Spero (2005) determined that pre-service teachers graduated from their teacher education programs with a high level of confidence for teaching diverse students, but their confidence declined during their first year of professional teaching. Mintz (2019) too, noted that first-year teachers did not benefit from an 'enriched induction on inclusion' aimed at increasing their self-efficacy for teaching diverse students and theorized that this was due to multiple challenges that they faced once they transitioned into their careers after completing their education. Accounts of beginning teachers in the present study shed light on some of these challenges, offering explanations for the decrease in confidence experienced by first-year teachers that existing research has hinted at. Beginning teachers who were in their first year of teaching confirmed experiencing the 'reality shock' that Mintz (2019) talked about. It was apparent from their comments that they first realized that their perceptions about what their classroom experience would be like were grossly overinflated when they began practicing. Having just started their careers, many of the classroom situations that they faced were novel to them requiring them to think on their feet. Negative instructional

experiences and failures inside the classroom were most commonly expressed by beginning teachers in their first year of teaching, likely because they were learning through trial and error at this time rather than relying on actual practical experience which they had in limited amounts. In addition to this, first-year teachers faced other unique challenges which contributed to the decline in their confidence. Since they were new to the profession and their work environments, they had not yet created a network of supportive colleagues who could guide, advise, or encourage them. Comments from some first-year teachers also seemed to indicate that they felt that their suggestions and concerns were not taken seriously by their more experienced colleagues or school administration, due to their inexperience in the field. Added to this, some beginning teachers also took up supply or substitute teaching positions rather than annual contracts during their first year of teaching. The substitute positions required them to be at different schools or in different classrooms every day. Although this exposed them to a diverse range of learning contexts and students with a vast variety of learning needs, it also meant that they were not in one learning environment long enough to form positive relationships with their students or colleagues or to put long-term instructional plans in place for their students and see them to fruition. According to the beginning teachers in this study, such relationships and positive interactions are instrumental in building self-efficacy for inclusive practice, particularly early on when they do not have sufficient instructional experience to draw from. The problems and challenges they encounter in their classrooms are often ones that their colleagues have experienced and solved before, making teacher colleagues an invaluable resource in the early years (Nielsen & Mageean, 2016). Gutierez and Kim (2017) further stressed the importance of collaboration between teachers with different backgrounds and levels of experience, explaining that it encouraged an exchange of ideas and incorporation of old and new educational

approaches. Since first-year beginning teachers had few supportive colleagues, limited successful interactions with students, little practical instructional experience, and moreover, were faced with a 'reality shock', their confidence for teaching diverse students dipped during the first year of practice as they had fewer positive experiences to cancel the impact of the negative ones that they were having. As they gained familiarity with their classroom and school context, began collaborating with their colleagues, worked with more students with special educational needs and as their initial shock wore off, their self-efficacy began to rebound over the next couple of years of practice. This was observed by Tschannen-Moran and Hoy (2007), as well. As they spent more time teaching, they accumulated more and more positive experiences with students and colleagues in their instructional contexts to outweigh and balance out the negative interactions that they were also facing.

**Limitations of the Present Study and Future Research Directions**

The present study aimed to contribute to the teacher self-efficacy research by exploring its potential sources that have not been addressed adequately in the extant literature. As with all research, it had limitations. Firstly, despite concerted efforts to recruit beginning teachers from the various Canadian provinces and territories, the sample did not have equal representation from all provinces and territories. Ontario and British Columbia were more heavily represented in the studied sample; whereas, there were no participants from Manitoba, Prince Edward Island, and the Canadian territories. Therefore, inferences regarding Canadian teachers on the whole should be drawn with caution. Moreover, as the sample included only Canadian teacher candidates and beginning teachers, any findings regarding factors influencing their self-efficacy for teaching in diverse classrooms have limited generalizability to other global contexts, especially countries which are developing or under-developed. It is recommended that the PNEB model is tested with

participants from other countries to establish how generalizable the factors influencing teacher self-efficacy that have been identify in this research are to other global contexts. This would support an understanding of how the national climate and context may potentially shape beginning teachers sense of confidence for providing instruction in diverse classrooms across the world.

Secondly, due to significant participant attrition at all time points in the data collection, it was not feasible to undertake a longitudinal investigation into the development of teacher self-efficacy which would have been a more rigorous way of examining the concept. Since very few participants remained with the study throughout and provided interview responses at all time points, the data collected had to be compared cross-sectionally in addressing the research questions. Adopting a truly longitudinal approach in examining the development of teacher self-efficacy in future will support a greater understanding of how and why it changes within the same teachers over time as they progress through their careers.

Lastly, it is important to highlight that the analysis of the interview data only presents one possible explanation dependent on my own subjective interpretation and other researchers might derive different meaning from the same interview responses. Since the interview data had already been collected, it was logistically challenging to confirm analysis findings by sharing interpretation with participating teachers and conducting member checks. Future researchers might increase the credibility of my findings by using the PNEB model generated through the present study and testing its applicability to other population samples through a deductive approach to analysis.

## Conclusion

Teacher self-efficacy plays a critical role in enabling educators to effectively teach all students with and without special educational needs. There is no unified theory to date explaining the nature and role of various influences on teacher self-efficacy. Identification of the factors that promote or hinder its development is important. It is also vital to understand why teacher self-efficacy declines in the first year of practice and may rebound over the next couple of years as indicated by existing research. The present study contributes to the teacher self-efficacy literature by using an inductive approach to analysis, identifying the factors instrumental for shaping teachers' confidence. Both positive and negative experiential factors that influence beginning teachers' self-efficacy for inclusive practice emerged in the results of this study. The PNEB model developed from the findings of the present study is a significant first step in understanding how these experiential factors interact to shape teachers' self-efficacy for teaching diverse students. As illustrated by the PNEB model, positive and negative experiences happen simultaneously in beginning teachers' early years of practice and collectively shape their confidence for inclusively teaching diverse students. The balance of these positive and negative experiences determines how efficacious beginning teachers feel about inclusive teaching at any given point in time. Beginning teachers in this study revealed that the experiences they have during their education and training as well as those that they have while teaching inside classrooms affect their self-efficacy in the first three years of their career. Moreover, they are not only influenced by their colleagues and students, but also their own personalities and life experiences.

When beginning teachers graduate and transition into their professional careers, they have limited classroom teaching experience, so they rely more on other sources of self-efficacy

such as knowledge acquired from their teacher education programs and support of colleagues. They do, however, recognize the importance of gaining hands-on instructional experience throughout the first three years of teaching. Beginning teachers find the first year of teaching particularly challenging because they feel that the reality of actual classrooms does not match the perceptions that they had while entering the profession. Many day-to-day situations they are faced with are novel to them and they have little practical experience to draw upon to manage them. Further, being new to the field, they also do not have a network of colleagues who can guide and encourage them. It was inferred that these unique challenges faced by beginning teachers leads to a decline in their self-efficacy in their first year of teaching. These challenges gradually begin to lessen by the second year of teaching and beginning teachers' comfort level and confidence continues improving into the third year of teaching as they gained more direct experience working and interacting with diverse students. This offers a potential explanation for the rebound and subsequent increase in teacher self-efficacy during and after this time period.

**Recommendations**

With knowledge of the factors that influence teacher self-efficacy for inclusive practice, teacher education programs can be improved by including elements in coursework that this study reveals beginning teachers find helpful. These elements include broader coverage of the characteristics and needs of students they are likely to encounter in diverse, inclusive classrooms; pedagogical approaches appropriate for specific learning challenges; longer practicum placements; and direct experience with students with severe disabilities, behavioural challenges, and giftedness. Similarly, school leaders can also utilize the findings of this research to create a collaborative school culture and supportive classroom environments which facilitate inclusive education. They can provide direct mentorship and inclusion-related professional development

opportunities to beginning teachers during the initial years of teaching in order to boost their confidence for instructing all students.

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# Appendices

## Appendix A Letter of Information and Consent Forms

**Project Title:**
The Development of Inclusive Educational Practices for Beginning Teachers

**Principal Investigator:**
Dr. Jacqueline Specht, Professor, Western University, London, ON

### Letter of Information

**Invitation to Participate**

My name is Dr Jacqueline Specht, and I am a Professor at the Faculty of Education at The University of Western Ontario. I am the director of the Canadian Research Centre on Inclusive Education, and we are currently conducting research into preservice teachers' beliefs of inclusive education practices in Canadian classrooms and would like to invite you to participate in this study.

**Purpose of the Letter**

The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

**Purpose of this Study**

The purpose of this study is to explore the self-efficacy, beliefs, and instructional practices of beginning teachers identifying the factors that shape their development over time and in the context of their initial teaching experiences. Through this study, we hope to gain a better understanding of how teachers develop their instructional knowledge and practice to meet the needs of students in diverse Canadian classrooms, spanning the period from initial professional development through the first years as an educator.

**Inclusion Criteria**

Individuals who are enrolled in a teacher education program at a participating Canadian post-secondary institution are eligible to participate in this study. Participants must be at the beginning of their teacher preparation programs.

**Exclusion Criteria**

Individuals who are not enrolled in a teacher education program at a participating Canadian post-secondary institution, and those who are not at the beginning of their teacher education program, are not eligible to participate in this study.

**Study Procedures**

If you agree to participate in this study, you will be asked to complete survey questions about your beliefs and experiences teaching in an inclusive classroom. Completion of these questionnaires will take place within the Faculty of Education at your respective university and will take approximately 30 minutes of your time in one session. The task will be conducted in person in a course related to special/inclusive education.

After completion of the in-class survey, you will be asked if you would like to participate in subsequent surveys. Subsequent surveys, should you choose to participate in these, will be conducted online throughout your program tenure and into your first years of teaching, using Qualtrics, a secure survey platform used by Western University. These tasks will take approximately 30 minutes of your time. If you elect to participate in subsequent surveys, you will be asked to leave your contact information in a separate section (not linked to the survey data). Personal information will be removed from the research data and kept separate from this. Unique identifiers will then be assigned to each survey for the purposes of protecting personal information while tracking participants for the duration of the research study.

You will also be asked if you would like to participate in follow-up interviews. Participation in the interview component is entirely voluntary and separate from the survey component; involvement in the initial survey component does not mandate involvement in the follow-up interview component. Subsequent interviews, should you choose to participate in these, will be conducted in your first years of teaching. If you elect to be contacted to participate in the interview component, you may be sent an email requesting you to respond to me stating that you are interested. The researcher will contact you to set up an interview time and private location convenient to you. Interviews will be recorded using audio recording procedures; participants who do not wish to have their interview audio recorded will not be able to participate in the interview portion of the study. It is estimated that each interview will take approximately 30-60 minutes. All interviews will be audio-recorded. Audio-recordings will be transcribed verbatim. Any information that could identify you, your place of study, or your place of employment will be removed.

There will be a total of 300 local and 4500 total participants in this study overall.

**Possible Risks and Harms**

There are no known risks or harms associated with participation in this study.

**Possible Benefits**

The possible benefits to participants include enhanced knowledge about themselves as educators (strengths and weaknesses) and enhanced knowledge of effective educational practices in working with diverse learners. Participants may benefit from improved teacher training opportunities that develop from this research. Societal benefits of this study include enhanced professional practice for teachers, training and skill development for teachers, and new and enhanced partnerships amongst researchers in education.

**Compensation**

As an incentive to participate in this study, you will have the opportunity at the completion of the initial survey to enter your name to win a draw for 1 of 15 $100 gift certificate for Indigo/Chapters. Participants who participate in subsequent aspects of the study (surveys, interviews) will automatically be entered into a draw in each year in which they participate. Each year they will have a chance to win 1 of 15 gift certificates.

**Voluntary Participation**

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your future academic status or employment. Withdrawing your participation or not answering questions will not disqualify you from being entered into the draw for a gift certificate in the year.

**Confidentiality**

All data collected will remain confidential and accessible only to the investigators of this study. Personal information in this study will only be collected if you offer this information to the researcher on the initial survey. Personal information will be stored separately from the research data; research data, therefore, will not be identifiable in connection to personal information. Unique identifiers will be assigned to each survey collected in order to protect personal information.

All hard-copy data will be stored in a locked filing cabinet in a locked institutional office. Digital data will be stored on a password-protected computer on a secure network behind institutional firewalls, which will only be accessible to the researchers. The Qualtrics survey platform ensures secure transmission of data through the enablement of the TLS (transport layer security) encryption feature, and the masking of participant IP addresses from the survey author. For those who elect to participate in the interview component of the study, the researcher will maintain confidentiality through non-disclosure of identifying information (i.e. real names, locations, personal details). Pseudonyms will be used to protect confidentiality in the final research product. If the results are published, your name will not be used. If you choose to withdraw from this study, your data will be removed and destroyed from our database. All data will be kept by the researcher and stored securely for a minimum of five years. Data will be destroyed when no longer needed.

**Contacts for Further Information**

If you require any further information regarding this research project or your participation in the study you may contact Dr. Jacqueline Specht, Principal Investigator, by telephone at (519) 661-2111 x 88876, or email to jspecht@uwo.ca.

Representatives of Western University's Non-Medical Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Research Ethics (519) 661-3036, email: ethics@uwo.ca.

**Publication**

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please provide your name and contact information in the designated area after completion of the survey.

**Consent**

Written consent will be obtained in person in the initial surveys.

Completion of subsequent online surveys is indication of your continued consent to participate.

*This letter is yours to keep for future reference.*

## Consent Form (Initial Survey)

**Project Title:** The Development of Inclusive Educational Practices for Beginning Teachers

**Study Investigator's Name:** Dr. Jacqueline Specht

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction. I understand that I do not waive my legal rights by signing the Consent Form.

Participant's Name (please print):

_____

Participant's Signature:

_____

Date:

_____

Person Obtaining Informed Consent (please print):

_____

Signature:

_____

Date:

_____

## Consent Form (Interview)

**Project Title:** The Development of Inclusive Educational Practices for Beginning Teachers

**Study Investigator's Name:** Dr. Jacqueline Specht

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate in the interview. All questions have been answered to my satisfaction. I understand that I do not waive my legal rights by signing the Consent Form.

- ❑ I consent to being audio recorded during the interview

Participant's Name (please print):

_____

Participant's Signature:

_____

Date:

_____

Person Obtaining Informed Consent (please print):

_____

Signature:

_____

Date:

_____

# Appendix B List of Process Codes and Their Frequencies

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Gaining practical instructional experience | 63.46 | Gaining practical instructional experience | 74.46 | Discussing and collaborating with other teachers | 65.21 | Gaining practical instructional experience | 70.58 |
| Taking coursework related to inclusive education | 48.07 | Discussing and collaborating with other teachers | 38.29 | Gaining practical instructional experience | 65.21 | Working directly with students with diverse needs | 41.17 |
| Learning through practicums | 46.15 | Getting instructional support from EAs and other resource professionals | 34.04 | Getting instructional support from EAs and other resource professionals | 34.78 | Getting instructional support from EAs and other resource professionals | 41.17 |
| Working directly with students with diverse needs | 40.38 | Being a first year teacher | 31.91 | Forming relationships with students | 34.78 | Discussing and collaborating with other teachers | 35.29 |
| Spending time in a diverse classroom | 34.61 | Getting a reality check | 29.78 | Receiving support from school administration or within school environment | 34.78 | Trying out different teaching strategies | 35.29 |
| Learning from associate teachers | 30.76 | Having your own classroom | 29.78 | Supplying or substituting | 34.78 | Supplying or substituting | 35.29 |
| Learning through trial and error inside a classroom | 28.84 | Spending time in a diverse classroom | 27.65 | Experiencing wide range of learning needs within a classroom | 30.43 | Spending time in a diverse classroom | 29.41 |
| Experiencing wide range of learning needs within a classroom | 26.92 | Working directly with students with diverse needs | 27.65 | Getting exposed to students with a variety of disabilities | 30.43 | Forming relationships with students | 29.41 |
| Learning inclusive instructional strategies | 25 | Experiencing wide range of learning needs within a classroom | 25.53 | Spending time in a diverse classroom | 26.08 | Learning inclusive instructional strategies | 29.41 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Taking advantage of professional development opportunities (e.g. books, workshops, internet, websites, qualifications, etc.) | 25 | Receiving support from school administration or within school environment | 25.53 | Spending more classroom time with diverse students | 26.08 | Finding and accessing available resources | 29.41 |
| Receiving support from school administration or within school environment | 25 | Learning through trial and error inside a classroom | 23.4 | Handling variety of classroom situations | 26.08 | Receiving support from school administration or within school environment | 29.41 |
| Getting exposed to students with a variety of disabilities | 25 | Taking coursework related to inclusive education | 23.4 | Struggling to support students with diverse needs | 26.08 | Noticing gap between theory and practice | 23.52 |
| Making connections with students with diverse needs | 23.07 | Learning inclusive instructional strategies | 23.4 | Working directly with students with diverse needs | 21.73 | Taking advantage of professional development opportunities (e.g. books, workshops, internet, websites, qualifications, etc.) | 23.52 |
| Forming relationships with students | 23.07 | Taking advantage of professional development opportunities (e.g. books, workshops, internet, websites, qualifications, etc.) | 23.4 | Taking advantage of professional development opportunities (e.g. books, workshops, internet, websites, qualifications, etc.) | 21.73 | Reflecting on practice | 23.52 |
| Discussing and collaborating with other teachers | 21.15 | Getting exposed to students with a variety of disabilities | 23.4 | Trying out different teaching strategies | 21.73 | Dealing with students with severe disabilities | 23.52 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Observing other teachers | 19.23 | Having novel experiences as first year teacher | 23.4 | Reflecting on practice | 21.73 | Getting exposed to students with a variety of disabilities | 23.52 |
| Being placed in a variety of educational settings | 19.23 | Learning through practicums | 21.27 | Being open to learning | 21.73 | Struggling to support students with diverse needs | 23.52 |
| Recognizing the uniqueness and diversity of learning challenges for each student | 19.23 | Noticing gap between theory and practice | 21.27 | Having your own classroom | 21.73 | Observing other teachers | 17.64 |
| Getting instructional support from EAs and other resource professionals | 17.3 | Making connections with students with diverse needs | 19.14 | Balancing multiple responsibilities as a teacher | 21.73 | Experiencing wide range of learning needs within a classroom | 17.64 |
| Getting a reality check | 17.3 | Reflecting on practice | 19.14 | Being placed in a variety of educational settings | 17.39 | Handling variety of classroom situations | 17.64 |
| Noticing gap between theory and practice | 17.3 | Dealing with students with severe disabilities | 19.14 | Recognizing the uniqueness and diversity of learning challenges for each student | 17.39 | Recognizing the uniqueness and diversity of learning challenges for each student | 17.64 |
| Finding and accessing available resources | 17.3 | Supplying or substituting | 19.14 | Listening to students' voices | 17.39 | Having a range of relevant professional experiences | 17.64 |
| Dealing with students with severe disabilities | 17.3 | Being placed in a variety of educational settings | 17.02 | Feeling pressured due to lack of time and extensive workload | 17.39 | Seeing students with diverse needs succeed at tasks | 17.64 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Applying the theory of inclusive ed to practice | 17.3 | Forming relationships with students | 17.02 | Feeling unprepared and dissatisfied with teacher education | 17.39 | Being open to learning | 17.64 |
| Feeling unprepared and dissatisfied with teacher education | 17.3 | Recognizing the uniqueness and diversity of learning challenges for each student | 17.02 | Having the instructional tools needed to succeed | 17.39 | Getting frustrated by systemic barriers | 17.64 |
| Spending more classroom time with diverse students | 13.46 | Finding and accessing available resources | 17.02 | Observing other teachers | 13.04 | Seeing students with exceptionalities struggle | 17.64 |
| Handling variety of classroom situations | 13.46 | Struggling to support students with diverse needs | 17.02 | Getting a reality check | 13.04 | Experiencing various forms of diversity (ethnic, linguistic) | 17.64 |
| Learning from other professionals in the field | 13.46 | Seeing students with diverse needs succeed at tasks | 14.89 | Teaching multiple grade levels or subjects | 13.04 | Getting exposure to diversity in personal life | 11.76 |
| Having a range of relevant professional experiences | 13.46 | Listening to students' voices | 14.89 | Learning from other professionals in the field | 13.04 | Making connections with students with diverse needs | 11.76 |
| Being open to learning | 13.46 | Benefitting from teacher education | 14.89 | Seeing students with diverse needs succeed at tasks | 13.04 | Receiving feedback from associate teachers | 11.76 |
| Getting exposure to diversity in personal life | 11.53 | Feeling unsure of self | 14.89 | Finding and accessing available resources | 13.04 | Learning through trial and error inside a classroom | 11.76 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Seeing students with diverse needs succeed at tasks | 11.53 | Teaching multiple grade levels or subjects | 12.76 | Dealing with students with severe disabilities | 13.04 | Being placed in a variety of educational settings | 11.76 |
| Having your own classroom | 11.53 | Being open to learning | 12.76 | Discussing with colleagues in teachers education | 13.04 | Spending more classroom time with diverse students | 11.76 |
| Gaining knowledge about various disabilities | 11.53 | Applying the theory of inclusive ed to practice | 12.76 | Managing students with significant challenges | 13.04 | Handling a challenging class successfully | 11.76 |
| Learning from professors in teachers ed | 11.53 | Feeling unprepared and dissatisfied with teacher education | 12.76 | Seeing students with exceptionalities struggle | 13.04 | Listening to students' voices | 11.76 |
| Benefitting from teacher education | 11.53 | Spending more classroom time with diverse students | 10.63 | Experiencing failure while implementing strategies | 13.04 | Instructing diverse students successfully | 11.76 |
| Teaching multiple grade levels or subjects | 9.62 | Trying out different teaching strategies | 10.63 | Getting exposure to diversity in personal life | 8.7 | Feeling pressured due to lack of time and extensive workload | 11.76 |
| Asking for help without hesitation | 9.62 | Feeling pressured due to lack of time and extensive workload | 10.63 | Noticing gap between theory and practice | 8.7 | Having the instructional tools needed to succeed | 11.76 |
| Reflecting on practice | 9.62 | Receiving more inclusion specific training | 10.63 | Learning inclusive instructional strategies | 8.7 | Experiencing failure while implementing strategies | 11.76 |
| Listening to students' voices | 9.62 | Balancing multiple responsibilities as a teacher | 10.63 | Having a range of relevant professional experiences | 8.7 | Getting a reality check | 5.88 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Struggling to support students with diverse needs | 9.62 | Seeing students with exceptionalities struggle | 10.63 | Collaborating with parents | 8.7 | Teaching multiple grade levels or subjects | 5.88 |
| Receiving feedback from associate teachers | 7.69 | Getting exposure to diversity in personal life | 8.51 | Instructing diverse students successfully | 8.7 | Asking for help without hesitation | 5.88 |
| Trying out different teaching strategies | 7.69 | Learning from associate teachers | 8.51 | Receiving more inclusion specific training | 8.7 | Taking coursework related to inclusive education | 5.88 |
| Collaborating with parents | 7.69 | Observing other teachers | 8.51 | Feeling unsure of self | 8.7 | Feeling unprepared and dissatisfied with teacher education | 5.88 |
| Planning for diversity | 7.69 | Learning from other professionals in the field | 8.51 | Getting frustrated by systemic barriers | 8.7 | Receiving more inclusion specific training | 5.88 |
| Becoming a parent | 5.77 | Collaborating with parents | 6.38 | Making connections with students with diverse needs | 4.35 | Having advance knowledge of classroom composition and diversity | 5.88 |
| Instructing diverse students successfully | 5.77 | Instructing diverse students successfully | 6.38 | Learning from associate teachers | 4.35 | Managing students with significant challenges | 5.88 |
| Discussing with colleagues in teachers education | 5.77 | Discussing with colleagues in teachers education | 6.38 | Learning through trial and error inside a classroom | 4.35 | Feeling unsupported inside the classroom | 5.88 |
| Feeling pressured due to lack of time and extensive workload | 5.77 | Gaining knowledge about various disabilities | 6.38 | Receiving criticism from parents | 4.35 | Balancing multiple responsibilities as a teacher | 5.88 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Translating outside experience with PWDs to classroom setting | 5.77 | Getting frustrated by systemic barriers | 6.38 | Asking for help without hesitation | 4.35 | Having a partner teacher for support during first year | 5.88 |
| Getting involved in community or volunteer work | 5.77 | Having the instructional tools needed to succeed | 6.38 | Taking coursework related to inclusive education | 4.35 | Reading research evidence for inclusion | 5.88 |
| Receiving more inclusion specific training | 5.77 | Handling variety of classroom situations | 4.26 | Planning for diversity | 4.35 | Learning through practicums | 0 |
| Feeling unsupported and dissatisfied with advisors and mentors | 5.77 | Asking for help without hesitation | 4.26 | Gaining knowledge about various disabilities | 4.35 | Learning from associate teachers | 0 |
| Seeing the benefits of a diverse classroom practically | 3.85 | Having a range of relevant professional experiences | 4.26 | Learning from professors in teachers ed | 4.35 | Receiving criticism from parents | 0 |
| Maturing with age | 3.85 | Having advance knowledge of classroom composition and diversity | 4.26 | Feeling unsupported inside the classroom | 4.35 | Receiving appreciation from parents | 0 |
| Feeling unsure of self | 3.85 | Working as an EA | 4.26 | Feeling comfortable with not being perfect | 4.35 | Having patience | 0 |
| Receiving criticism from parents | 1.92 | Learning from professors in teachers ed | 4.26 | Having previously created course materials to draw from | 4.35 | Persisting with struggling students | 0 |
| Receiving appreciation from parents | 1.92 | Feeling unsupported inside the classroom | 4.26 | Creating a safe classroom culture | 4.35 | Learning from other professionals in the field | 0 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Having patience | 1.92 | Having previously created course materials to draw from | 4.26 | Teaching older students | 4.35 | Seeing the benefits of a diverse classroom practically | 0 |
| Persisting with struggling students | 1.92 | Reading research evidence for inclusion | 4.26 | Learning through practicums | 0 | Maturing with age | 0 |
| Handling a challenging class successfully | 1.92 | Having limited understanding of students needs | 4.26 | Receiving feedback from associate teachers | 0 | Becoming a parent | 0 |
| Interacting with persons with disabilities | 1.92 | Receiving feedback from associate teachers | 2.13 | Receiving appreciation from parents | 0 | Collaborating with parents | 0 |
| Having advance knowledge of classroom composition and diversity | 1.92 | Receiving criticism from parents | 2.13 | Having patience | 0 | Applying the theory of inclusive ed to practice | 0 |
| Managing students with significant challenges | 1.92 | Persisting with struggling students | 2.13 | Persisting with struggling students | 0 | Planning for diversity | 0 |
| Believing in the positive impact of inclusion | 1.92 | Handling a challenging class successfully | 2.13 | Handling a challenging class successfully | 0 | Discussing with colleagues in teachers education | 0 |
| Working as an EA | 1.92 | Seeing the benefits of a diverse classroom practically | 2.13 | Seeing the benefits of a diverse classroom practically | 0 | Interacting with persons with disabilities | 0 |
| Getting frustrated by systemic barriers | 1.92 | Maturing with age | 2.13 | Maturing with age | 0 | Translating outside experience with PWDs to classroom setting | 0 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Feeling unsupported inside the classroom | 1.92 | Becoming a parent | 2.13 | Becoming a parent | 0 | Getting involved in community or volunteer work | 0 |
| Interacting with children | 1.92 | Translating outside experience with PWDs to classroom setting | 2.13 | Applying the theory of inclusive ed to practice | 0 | Having your own classroom | 0 |
| Feeling comfortable with not being perfect | 1.92 | Getting involved in community or volunteer work | 2.13 | Interacting with persons with disabilities | 0 | Feeling unsupported and dissatisfied with advisors and mentors | 0 |
| Stepping out of comfort zone | 1.92 | Feeling unsupported and dissatisfied with advisors and mentors | 2.13 | Translating outside experience with PWDs to classroom setting | 0 | Gaining knowledge about various disabilities | 0 |
| Balancing multiple responsibilities as a teacher | 0 | Managing students with significant challenges | 2.13 | Getting involved in community or volunteer work | 0 | Believing in the positive impact of inclusion | 0 |
| Having previously created course materials to draw from | 0 | Having a partner teacher for support during first year | 2.13 | Feeling unsupported and dissatisfied with advisors and mentors | 0 | Working as an EA | 0 |
| Having novel experiences as first year teacher | 0 | Feeling relaxed while teaching | 2.13 | Having advance knowledge of classroom composition and diversity | 0 | Learning from professors in teachers ed | 0 |
| Having the instructional tools needed to succeed | 0 | Creating a safe classroom culture | 2.13 | Believing in the positive impact of inclusion | 0 | Benefitting from teacher education | 0 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Having a partner teacher for support during first year | 0 | Experiencing various forms of diversity (ethnic, linguistic) | 2.13 | Working as an EA | 0 | Feeling unsure of self | 0 |
| Being a first year teacher | 0 | Experiencing failure while implementing strategies | 2.13 | Benefitting from teacher education | 0 | Interacting with children | 0 |
| Supplying or substituting | 0 | Receiving appreciation from parents | 0 | Interacting with children | 0 | Feeling comfortable with not being perfect | 0 |
| Feeling relaxed while teaching | 0 | Having patience | 0 | Stepping out of comfort zone | 0 | Stepping out of comfort zone | 0 |
| Reading research evidence for inclusion | 0 | Planning for diversity | 0 | Having novel experiences as first year teacher | 0 | Having previously created course materials to draw from | 0 |
| Having limited understanding of students needs | 0 | Interacting with persons with disabilities | 0 | Having a partner teacher for support during first year | 0 | Having novel experiences as first year teacher | 0 |
| Seeing students with exceptionalities struggle | 0 | Believing in the positive impact of inclusion | 0 | Being a first year teacher | 0 | Being a first year teacher | 0 |
| Creating a safe classroom culture | 0 | Interacting with children | 0 | Feeling relaxed while teaching | 0 | Feeling relaxed while teaching | 0 |
| Experiencing various forms of diversity (ethnic, linguistic) | 0 | Feeling comfortable with not being perfect | 0 | Reading research evidence for inclusion | 0 | Having limited understanding of students needs | 0 |
| Experiencing failure while implementing strategies | 0 | Stepping out of comfort zone | 0 | Having limited understanding of students needs | 0 | Creating a safe classroom culture | 0 |

| Round 1: Graduating Teachers | | Round 2: First-Year Teachers | | Round 3: Second-Year Teachers | | Round 4: Third-Year Teachers | |
|---|---|---|---|---|---|---|---|
| Code | Total R1 % (n=52) | Code | Total R2 % (n=47) | Code | Total R3 % (n=23) | Code | Total R4 % (n=17) |
| Teaching older students | 0 | Teaching older students | 0 | Experiencing various forms of diversity (ethnic, linguistic) | 0 | Teaching older students | 0 |

**Appendix C Categorization of Codes into Factors Influencing Beginning Teachers' Self-Efficacy**

**Positive Experiences**

| 1 – Gaining instructional practice within the classroom (20 process codes) | 2 – Building positive relationships with students with diverse needs (6 process codes) | 3 - Acquiring relevant education and training (10 process codes) | 4 - Receiving support from colleagues, school administration, and other professionals (12 process codes) | 5 - Drawing from personal strengths and experiences (15 process codes) |
|---|---|---|---|---|
| Spending time in a diverse classroom | Making connections with students with diverse needs | Learning through practicums | Learning from associate teachers | Getting exposure to diversity in personal life |
| Being placed in a variety of educational settings | Working directly with students with diverse needs | Taking coursework related to inclusive education | Observing other teachers | Having patience |
| Gaining practical instructional experience | Forming relationships with students | Learning inclusive instructional strategies | Receiving feedback from associate teachers | Having a range of relevant professional experiences |
| Spending more classroom time with diverse students | Recognizing the uniqueness and diversity of learning challenges for each student | Taking advantage of professional development opportunities (e.g. books, workshops, internet, websites, qualifications, etc.) | Discussing and collaborating with other teachers | Reflecting on practice |
| Handling variety of classroom situations | Seeing students with diverse needs succeed at tasks | Discussing with colleagues in teachers education | Getting instructional support from EAs and other resource professionals | Maturing with age |
| Teaching multiple grade levels or subjects | Listening to students' voices | Receiving more inclusion specific training | Receiving appreciation from parents | Becoming a parent |

| 1 – Gaining instructional practice within the classroom (20 process codes) | 2 – Building positive relationships with students with diverse needs (6 process codes) | 3 - Acquiring relevant education and training (10 process codes) | 4 - Receiving support from colleagues, school administration, and other professionals (12 process codes) | 5 - Drawing from personal strengths and experiences (15 process codes) |
|---|---|---|---|---|
| Handling a challenging class successfully | | Gaining knowledge about various disabilities | Asking for help without hesitation | Being open to learning |
| Trying out different teaching strategies | | Learning from professors in teachers ed | Learning from other professionals in the field | Interacting with persons with disabilities |
| Seeing the benefits of a diverse classroom practically | | Benefitting from teacher education | Finding and accessing available resources | Translating outside experience with PWDs to classroom setting |
| Getting exposed to students with a variety of disabilities | | Reading research evidence for inclusion | Receiving support from school administration or within school environment | Getting involved in community or volunteer work |
| Applying the theory of inclusive ed to practice | | | Collaborating with parents | Believing in the positive impact of inclusion |
| Instructing diverse students successfully | | | Having a partner teacher for support during first year | Interacting with children |
| Planning for diversity | | | | Feeling comfortable with not being perfect |
| Having advance knowledge of classroom composition and diversity | | | | Stepping out of comfort zone |

| 1 – Gaining instructional practice within the classroom (20 process codes) | 2 – Building positive relationships with students with diverse needs (6 process codes) | 3 - Acquiring relevant education and training (10 process codes) | 4 - Receiving support from colleagues, school administration, and other professionals (12 process codes) | 5 - Drawing from personal strengths and experiences (15 process codes) |
|---|---|---|---|---|
| Working as an EA | | | | Experiencing various forms of diversity (ethnic, linguistic) |
| Having previously created course materials to draw from | | | | |
| Having the instructional tools needed to succeed | | | | |
| Feeling relaxed while teaching | | | | |
| Creating a safe classroom culture | | | | |
| Teaching older students | | | | |

**Negative Experiences**

| 6 – Facing challenging situations within the classroom (12 process codes) | 7 – Experiencing setbacks while teaching diverse students (5 process codes) | 8 - Feeling unprepared by teacher education (2 process codes) | 9 - Feeling unheard and unsupported by colleagues and other stakeholders (2 process codes) | 10 - Dealing with personal uncertainties and frustrations (2 process codes) |
|---|---|---|---|---|
| Learning through trial and error inside a classroom | Dealing with students with severe disabilities | Feeling unprepared and dissatisfied with teacher education | Receiving criticism from parents | Feeling unsure of self |
| Experiencing wide range of learning needs within a classroom | Managing students with significant challenges | Feeling unsupported and dissatisfied with advisors and mentors | Feeling unsupported inside the classroom | Getting frustrated by systemic barriers |
| Getting a reality check | Having limited understanding of students needs | | | |
| Noticing gap between theory and practice | Seeing students with exceptionalities struggle | | | |
| Feeling pressured due to lack of time and extensive workload | Persisting with struggling students | | | |
| Struggling to support students with diverse needs | | | | |
| Balancing multiple responsibilities as a teacher | | | | |
| Having novel experiences as first year teacher | | | | |
| Being a first year teacher | | | | |

| 6 – Facing challenging situations within the classroom (12 process codes) | 7 – Experiencing setbacks while teaching diverse students (5 process codes) | 8 - Feeling unprepared by teacher education (2 process codes) | 9 - Feeling unheard and unsupported by colleagues and other stakeholders (2 process codes) | 10 - Dealing with personal uncertainties and frustrations (2 process codes) |
|---|---|---|---|---|
| Supplying or substituting | | | | |
| Experiencing failure while implementing strategies | | | | |
| Having your own classroom | | | | |