

Secondary Pre-service Teachers Exploration of Inclusive Education

Abstract:

In today's classrooms, teachers are expected to design and facilitate inclusive learning environments. Teacher education programs are required to provide pre-service teachers with appropriate and relevant training to enable them to respond to the diverse learning needs of all children. To address this issue, an online collaborative transformative learning experience was established with pre-service teachers, teacher educators and practicing teachers dialoguing about contemporary pedagogical approaches for a diverse and changing classroom. This experience was designed to introduce secondary pre-service teachers to the reality of inclusive pedagogies required to effectively teach across a range of differences within their classrooms. A single case study (n=50) was used to examine archived online discussions conducted in a secondary curriculum and pedagogy course. The purpose of study was to explore secondary pre-service teachers' concerns and knowledge regarding inclusivity and inclusive practices for students with special educational needs in their discipline-based classrooms. Using a constant comparative analysis six themes emerged: Defining inclusion, fear of inclusion, impact of inclusion, multiple approaches to inclusion, important of collaboration, and ICT and inclusion. Drawing on the data and the literature, four implications for pre-service teachers and for teacher education programs are also discussed.

Keywords: Inclusion, teacher education, special educational needs, secondary pre-service teachers.

In contemporary classrooms, teachers are expected to design and facilitate inclusive learning environments for all learners (Subban & Mahlo, 2016). The growth of inclusive practice in schools began in the late 1970's (Costello & Boyle, 2013). This is a major shift, as noted by Rose, Meyer, and Hitchcock (2005) "away from meeting disability-specific needs and toward providing 'changing' access to the general education curriculum for all students" (p. 11). As a result, teacher education programs are required to provide pre-service teachers (PSTs) with appropriate educational opportunities to develop the knowledge and skills to effectively respond to the diverse needs of all children.

This chapter provides an overview of a single case study that examined the online collaborative transformative learning experience that was established with pre-service teachers, teacher educators and practicing teachers dialoguing about contemporary pedagogical approaches for a diverse and changing classroom. The purpose of the online

collaboration was to introduce secondary pre-service teachers (PSTs) to the reality of inclusive pedagogies required to effectively teach across a range of differences within their classrooms. The research examined the concerns and knowledge of secondary PSTs regarding inclusion of students with special educational needs in secondary classrooms. The results of the study highlight the need for PSTs to have greater opportunities to question and explore what is inclusive education, to determine what that means for practice, and to identify how they can be responsive to diversity in contemporary learning environments.

Inclusion in Education

Contemporary secondary classrooms in all discipline areas include students from a range of different backgrounds, abilities and disabilities. “Diversity and difference in classrooms are a reality” (Jobling & Moni, 2004, p. 5). Today’s inclusive classroom practices support and benefit all learners. Savolainen, Engelbrecht, Nel and Malinen (2012) reminded us that

Including students with diverse educational needs in mainstream schools is now at the heart of education policy and planning through the world and this emphasis on education for all within inclusive schools as served as a catalyst for the transformation of schools. (p.51)

There is international agreement that access to education is a basic human right and we “need to work towards ‘schools for all’ – institutions which include everybody, celebrate differences, support learning, and respond to individual needs” (UNESCO, 1994, p. iii). The rights of all learners to access quality learning experiences includes those who are marginalised within general education systems such as those with special educational needs. As such, how are teachers being prepared to meet the learning needs of all students?

Inclusive education is the “merger of special and regular education into a unified system required adaptive instruction, consultation, and collaboration to address the special needs of students” (Andrews, Drefs, Lupart, & Loreman, 2015, p. 25). A broad view of inclusion focuses on active participation in education by all and provides opportunities to reduce the marginalisation of learners with irrespective of gender, sexuality, language, class, poverty, and medical needs as well as those identified under a traditional special needs view of education (Ainscow & Booth, 1998). As noted by Andrews et al. (2015) it is not adequate for teachers to know of the various diagnoses or labels for learners and how to target instructional strategies to accommodate such needs. Rather, they argued “teachers also need to be able to understand all types of student variance (e.g., gender, religion, social class, race, and ethnicity) and provide appropriate instruction to address all their students’ individual and collective needs” (p. 26). This means that each student in each classroom has a unique set of educational demands.

Pre-service Teacher Concerns

PSTs are commonly daunted by the challenges of including students with special educational needs into general classroom settings. Teacher education programs “produce teachers bound for professional placements feeling unprepared

and inexperienced” (Hamilton-Jones & Vail, 2013, p. 58). Having said that, research undertaken by Costello and Boyle (2013) indicated that pre-service teachers had a positive attitude toward inclusion. They also contended that competency influenced pre-service teachers’ attitudes. The challenge is how to help prepare pre-service teachers to develop an understanding of diversity and how to be responsive in meeting the needs of all students in an inclusive classroom.

Context

The PST participants were enrolled in a secondary curriculum and pedagogy course in their second year of a four-year teacher education program or in the first semester of a one-year graduate diploma in teaching and learning. The course introduced a range of curriculum and pedagogy issues (such as inclusion, cyberbullying, indigenous perspectives and cultural diversity) and occurred prior to them completing a compulsory inclusive education course.

As part of the course, PSTs engaged in a six-week online international project focused on diversity and inclusivity. Students progressed through the following four stages of the project:

- 1) Community building – PSTs introduced themselves to others and began to develop a social presence online.
- 2) Learning from a shared experience – To begin, each PSTs read one of four stimulus novels. They were to review the novel, note pedagogical and curriculum linkages and create inquiry questions that would spark conversation. A number of these questions were used to begin the online dialogue facilitated by the teacher educator.
- 3) Learning from peers and teachers as experts – The teacher educator selected pedagogical questions gathered from stage 2 to open up a two week peer to peer discussion about inclusion. After those discussions, inservice teachers and other teacher educators in the role of experts joined the online conversation for two weeks. These experts were from Canada and Australia. To complement the asynchronous online discussion, synchronous discussions entitled Café Conversations. In these one-hour synchronous sessions, an expert joined with the PSTs in talking about a particular scenario that provided the foundation for thinking about strategies, resources, and professional development need to support the required pedagogical practice for the classroom.
- 4) Critical reflection – During the final week, PSTs were asked to reflect on their experience working both in terms of the process and content. They were also required to respond to one of five different scenarios. The reflections and scenario responses were shared with colleagues in the online environment. (Redmond & Lock, 2009; Lock & Redmond, 2011)

In relation to this book chapter, the data for this chapter came from this international online project, where PSTs investigated the topic of inclusion in relation to learners with special educational needs. In stage two, the pre-service teachers were required to read the stimulus novel *The Curious Incident of the Dog In The Night Time* (Hadden, 2002). The novel set the stage for the pre-service teachers’ inquiry into special

education and inclusion. For stage three, pre-service teachers were joined by teachers and teacher educators who were experts in teaching students with special education needs. PSTs brought to the discussion ideas and questions from the stimulus novel, their textbook, other literature, their own childhood, perspectives as a parent, and previous relevant job experience. Within the online discussion forums, they responded to initial inquiry questions that led to further peer discussion and debate and then expanded their understanding of inclusion through discussion with the experts.

Research Design

The purpose of the study was to explore the concerns and knowledge of secondary pre-service teachers regarding the inclusion of students with special educational needs in their discipline specialist classrooms. The research question which guided the work was: What is the nature of secondary pre-service teachers concerns about teaching students with special educational needs?

The research was conducted under a naturalistic paradigm (Lincoln & Guba, 1985; Stake, 1995) using the real world as the research setting, without any control or manipulation. A single case study methodology was used to examine pre-service teachers' perceptions of inclusive education.

Ethics approval was received from the host university. Data were collected within archived online discussion forums. The archived online postings were de-identified by a research assistant prior to analysis. The PST participated in this learning experience as part of their assessment and they were expected to post three to five times each week during the two-week period. However, it was found that seven was the average number of posts per participant as there were 343 posts by 44 pre-service teachers and 6 expert participants.

Using a qualitative analysis of the online posts, the researchers used a constant comparative approach (Wellington, 2000). As noted by Creswell (2002), this process has the researchers "constantly comparing indicators to indicators, codes to codes, and categories to categories" (p. 451). Through this process, the researchers identified patterns and themes in the data while also looking for contrasts or irregularities.

Discussion of Findings

Figure 1 summarises six key themes derived from an analysis of the content of the pre-service teachers' online discussion posts.

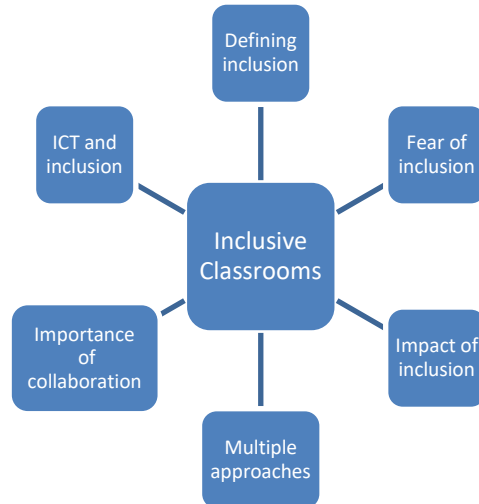


Figure 1: Broad themes from pre-service teachers’ online discussion posts.

Defining inclusion. In literature and in practice, there is no clear or common definition of inclusion. Many definitions in the literature include terms such as integration or mainstreaming (Hausstätter, 2013; Ryndak, Jackson, & Billingsley, 2000) of students with specific educational needs. The concepts of equality, fairness, social justice, or treating some learners unequally to gain equality are key to the construct (OECD, 2011). It could be said that the term inclusion is about the right for all children “to participate and benefit from education” (Hausstätter, 2013, p. 1).

In the online discussion, PSTs debated concepts of tolerance, acceptance and embracing difference when referring to inclusion. As reported by PST-B, “inclusion is more about everyone belonging (being included) in the school and not limited to disability, race, politics religion, ideals etc.” This was supported by PST-E who acknowledged that “it is important that we view every child regardless of race, religion, ability & disability etc. as having the equal right to be educated and to have an education”. Whereas PST-F noted that, “The act of inclusion means fighting against exclusion ... Fighting for inclusion also involves assuring that all support systems are available to those who need such support. Providing and maintaining support system is a civic responsibility, not a favour”. What the pre-service teachers were discussing parallels the research conducted by Hughes and De George-Walker (2010) who also found that values such as “tolerance, empathy and respect” (p. 114) were key concepts of importance for effective inclusive education.

PSTs made reference to inclusion as an intentional act. For example, PST-R revealed that a student with special needs at her professional experience placement “was meaningfully included in all activities and the other students learned acceptance, patience and compassion”. Through their practicum placements in schools, they observed how teachers intentionally designed and supported inclusive practices; they witnessed inclusive theory put into everyday practice.

The concept of equity within an inclusive classroom was discussed in depth by both the experts and the pre-service teachers. PST-K argued that “[d]ifferent people have different needs and therefore inclusion means giving everyone the same opportunities even if that means more support for one student than another!” In contrast PST-J believed that equity was about “treating students the same as opposed to responding to individual’s needs.” Through their discussion of equity, they developed a deeper appreciation and understanding of the concept.

Experts shared their perspectives which supported and/or conflicted with the PSTs ideas. For example, Expert-O shared the following account in terms of how every student is different: “Each one is unique. So treating everyone equally becomes a contestable ideal. Practically, we need to identify barriers to access and participation in curriculum.” As the experts engaged in the discussion, they acknowledged the various key words that are used in defining or describing such as “inclusion, equality, equitable, fair, and same” (Expert – K). Yet, how it is defined is grounded on a values systems. Expert-L proposed that such a term is “based on value systems that are deeply rooted in culture, sub-culture and personal experience”. To help the PSTs explore their own personal definition, Expert-M commented: “Treating disadvantaged people equally can lead to them remaining disadvantaged, because they may never be able to take advantage of or have access to the resources that others have in the same context.”

With the support of the online experts, pre-service teachers began to explore the concept of inclusion as a way of thinking, acting, valuing and being. As they grappled with defining the term, many of the posts revealed their fears of inclusion.

Fear of inclusion. PSTs are often fearful of the inclusion of students with special education needs in their classrooms (Jobling & Moni, 2004). Research by Savolainen et al. (2012) proposed that “teachers fears are pragmatic and that their ‘teachers’ attitudes toward inclusion are often not based on ideological arguments, but rather on practice concerns about how inclusive education can be implemented” (p. 32).

From the analysis of the data, the following four key fears were identified: 1) time to be pedagogically inclusive; 2) their own capabilities; 3) constant change; and 4) the unknown. PST-I questioned, “How teachers can treat all students equally and fairly if some children require more attention, planning and accommodations than other ... trying to address different learning needs requires varying amounts of time and effort”. PST-A and PST-R reinforced the fact that time was a fear given some students may need more of the teachers’ time and attention. This was supported by PST-M who acknowledged this concern as a teacher,

my time will absolutely Run Out.....no matter what I do, I will leave most children well under their potential, so knowing and being happy to ‘move on’ to the next student, and leave a student in the knowledge that they haven’t quite got a full understanding, will be very difficult!

The participants also expressed concern that the support in schools may not be adequate for the high incidence exceptional children therefore, placing more strain on the classroom teacher. They went on to acknowledge that such fears maybe dependent on the school, personal knowledge, special needs assistants, and the administration. PST-B carefully articulated questions that highlighted common anxiety experienced by PSTs: “Will I be adequately resourced to be able to effectively teach the class with a wider student needs? Will there be a teacher aide? Are the physical characteristics of the classroom able to cope? Are the materials that we are using able to be adapted for all students?”

Another common fear was not being capable or competent in their ability to fulfil the demands of all students. PST-W argued that, “When teachers fear practicing inclusion, it is about THEIR fear – their fear of failing and looking ‘stupid’. They need to realize that fear helps them to learn and succeed”. They went on to say “face the fear monster; stare it down. Name it, move on, and reap the benefits”. PST-L mentioned,

I quake in my boots at the thought of having a class with an Indigenous student, a gifted student, a special needs student, a new Australian with ESL and a behavioural problem student. But this is actually a very likely situation!

The situation may push a teacher or PST beyond his/her comfort zone. As noted by PST-J when she reflected on her mentor teachers, “Some seem to take it in their stride, but some really struggle as they are not equipped to do what is expected of them”.

The PSTs also noted that the fear of change is common in the teaching profession. In terms of teaching in an inclusive classroom, PST-V suggested that teachers fear “changing the way they do things e.g. needing to write a special program”. PST-W believed that teachers may fear inclusion because it means a “[c]hange to their style, experiences, planning, behaviour management and commitment to their profession ... it is often difficult to maintain this goal without constant reflection, re-design and professional training in inclusive methods”.

PST-Q believed a major fear for teachers with regard to inclusion is “what is the unknown. Not only what the teacher doesn’t know about the children but also what the children don’t know about each other”. Jobling and Moni (2004) elicited that “pre-service teacher education programs [should] take some responsibility for preventing the development of negative attitudes towards students with special needs as well as challenging non-inclusive practice” (p. 6).

Participants in this study mirrored those PST within Jobling and Moni’s (2004) synthesis from other studies. They noted that teachers can develop “negative attitudes toward inclusion and had doubts about their abilities to teach students with disabilities ... express their concerns about a general lack of preparation and confidence in providing for students who have disabilities” (p. 6).

PSTs revealed that they had number of fears about teaching within an inclusive classroom. They were uncomfortable about their limited knowledge, skills and experience to plan and implement effective teaching and learning for students with special needs. This fear may exacerbate their perspectives of the impact of inclusion.

Impact of inclusion. The implementation of an inclusive pedagogy has an impact on students with special education needs in the class as well as the teachers, parents and other students in addition to the resource distribution in the school or classroom. Although, the PSTs referred to the impact on parents and other students they particularly identified the impact with reference to economic cost and levels of responsibility.

The concept of the cost of inclusion was articulated by a number of pre-service teachers. For example, PST-I shared, “I love the idea of inclusion, but wonder what cost it comes at. I would never advocate bringing back special schools, but I do wonder how it is the government can continue not funding what is so desperately needed”. This was supported by PST-P who proffered, “I don’t want to sound like an economic rationalist, the argument goes that it is cost effective to provide services in one place rather than in every classroom”. Through these PSTs’ discussion, they were grappling with the question: Can a price be put on inclusion?

Through moral, ethical and pedagogical lenses, the PSTs wrestled with the economic impact of creating and supporting inclusive mainstream classrooms. PST-H remarked that the

problem lies not just for our teachers having to deal with a lack of resources but making them expel more energy in having to develop and/or customise teaching and also learning and behavioural strategies within the constraints that already exist.

The embodiment of inclusion in today’s education is a responsibility at all levels: school, district, and national. All stakeholders (e.g., teachers, administrators, politicians, parents) must work together to ensure resources and supports are in place to foster and nurture inclusive learning environments. This also means that PST have a responsibility in preparing themselves to accept their role in creating inclusive environments for all children in their classrooms.

Through their online discussions the PSTs expressed the belief that establishing inclusive classrooms impacts on others at a range of levels as well as having a financial impact. Interestingly, although mentioned in passing, the PST focus on impact did not extend to the impacts that are revealed by other studies. For example, Salend and Duhaney (1999) suggested that there are academic and social impacts when placing students with special education needs in a mainstream classroom to create an inclusive setting. The following section describes the next theme from the data which is the multiple approaches which may be implemented to create an inclusive classroom.

Multiple approaches. The PST noted that they had observed a number of different approaches for inclusion within secondary schools. There was an acknowledgment from the participants that different educational needs often require different approaches from a

school and classroom level. There was also an agreement that overtime approaches to inclusion have changed, especially for students with identified special educational needs.

The PSTs provided the following examples of different approaches for students with special education needs: separate schools, separate classes, pull out programs, drop in programs, socialisation programs, and the use of teacher aides as one-on-one or small group support. Rosenberg, Westling, and McLeskey (2011) indicated that dependant on the severity of the educational need students may be involved in any of the approaches above or even in a mixture of approaches. When investigating the range of approaches PST-A maintained that

Sometimes pull-out programs are most helpful, sometimes full inclusive classrooms are best but in order to determine which program to implement, I think conversations with the student, their parents, the teachers involved, school administrators and support staff needs to take place. ... Doing what is best for the student and their learning is most important.

During the discussions, PSTs reflected on what they had observed at their professional experience placements. PST-C shared a different perspective based on a very inclusive experience: “The school also has a very special culture around acceptance of these students. It results in a largely unconscious acceptance by students of those members of the class with special needs.”

Over several decades, different approaches have been used to educate children with special needs. There has been a move from separate special education schools to special education centres in mainstream schools and the integration of students with special educational needs into mainstream classrooms. As part of the evolutionary progress from segregation, integration, mainstreaming to inclusion, Andrews et al. (2015) argued that the “predominant and developing educational trend in diversity education is personalized instruction” (p. 29). They suggested that

personalized instruction takes into account and considers education with the broader contexts of community, school and home environments and tailors the curriculum and instruction to the unique experiences, abilities, needs, and self-identify of each student to ensure engagement in meaningful, relevant, and appropriate work. (Andrews et al., 2015, p. 29)

The research of Andrews et al. (2015) aligned with the views expressed by the participants in this study that one size does not fit all. PST-V reminded others that the uniqueness of every student requires multiple and integrated approaches and teachers should be “[d]oing what is best for the student”. When exploring the different approaches to inclusivity the concept of collaborative approaches was raised.

Importance of collaboration. There was common agreement between the PSTs around the concept, ‘it takes a village to raise a child’. They appreciated that no one individual teacher would be responsible for positive educational outcomes for students with special educational needs. There was an acknowledgment of the importance of professional networking and the need for a whole school approach for inclusion. A belief

of PST-X was that “[e]ssentially a difficult task is made near impossible when support networks are removed and teachers are left to fend for themselves.” In this discussion, pre-service teachers talked about the importance of communication, especially between the school and parents, but also with the team of professionals who are supporting the student. PST-Z’s comment highlighted the importance of communication, “Conversations - ongoing ones - need to occur between parents, teachers and other staff members to ensure we are providing a true inclusive environment”.

The PSTs saw themselves as a member of a collaborative team. Yet there seemed to be a disconnection in terms of practice. The following two quotes capture this disconnect. PST-V believed that every “student was the school’s responsibility, not just one specific teacher’s concern”. In contrast PST-U, claimed that

‘Teachers are alone’... With the right support from management, specialist teachers and other resources ... or within the community, you can access a range of individuals with a range of skills. Perhaps the best way to overcome this feeling of isolation is to have a good knowledge of the roles and skills these individuals can offer.

When discussing the lack of support and ability of teachers to cope PST-U shared that “I’ve always found there are people ready to help and support you when you ask them”. Rosenberg et al. (2011) suggested there is a range of sources for teachers including the following: 1) more experienced teaching colleagues; 2) attendance at professional development; and 3) advice from other professionals and para-professions (e.g., advisory visiting teachers, guidance officers, special education teacher/expert; teacher aide, and occupational therapist). Expert-C proposed, “When our administrators (school district, principal, consultants) support the teachers by providing the necessary resources (extra time, professional development, teaching assistants, etc.) then inclusive education will be easier and these nay-sayers will more likely jump on board”.

One type of support is that of a team. “Teams comprising of parents, executive staff, general and special education teachers, therapists and other professions or community members can work together to guide the child’s learning plan” (Pearce & Forlin, 2005, p. 101). This view of a collaborative approach was shared by the PSTs and is encapsulated in the post by PST-T who stated, “when we are educating the whole child, we are actually part of a team. This team ... should include the parents, the school administration, school staff and specialists.”

Having a team approach in the school, as well as, networks beyond the school were commonly mentioned in posts. PST-P revealed, “I certainly want to create a network of professionals in the education field that I can go to for support, and in turn maybe offer my support to them? I like the idea of being part of an ‘educational team’”. Whereas, PST-W observed that “a lot of the time the support and resources come from community organisations and this can act as an integration tool”.

The view of inclusion being a collaborative effort is supported by Pearce and Forlin (2005). They proposed that “[o]ne of the primary means of achieving inclusion is for teachers with general and special education training to work together collaboratively in one

inclusive educational system” (p. 101). They suggested that teachers’ ongoing training and support can be sourced through working with colleagues, co-teaching and mentoring.

The participants reported that collaboration with others is an important aspect of successful inclusion. The findings in this study indicated that the participants’ views aligned with the research and expected practice of teachers. They are aware that they do not need to go it alone and that there is a range of support available and a collaborative approach is likely to gain a more effective inclusive outcome. Many of the pre-service teachers admitted that it would be important for them to seek assistance from others, particularly when using ICTs in an inclusive classroom.

ICT and inclusion. Towards the end of the two-week period in the online discussion with the experts, one of the pre-service teachers commented that they were surprised they had yet to discuss the effect of information and communication technologies (ICTs) in supporting students with special needs. For students with special educational needs, ICTs have a key role in expanding curriculum learning opportunities.

The participants began to question if ICTs would in fact assist learning or lead to other issues that may impede learning. PST-G asked the following questions of the online experts and their peers: “I am presuming that ICT’s complicate things, but can this be used to assist in the teachings of inclusivity or does it only impede? Or does the internet present a whole different kind of inclusivity into society?” These questions align with the opinion of Brodin and Lindstrand (2003) who suggested that educators views on the use of ICTs have “become more balanced and a more realistic and critical attitude to ICT is discernible” (p. 72).

From their observations and reading of the literature, the PSTs identified various issues when using technology. PST-A responded that “[m]y observation is that the school and teachers struggle with knowing how to best use them [technology] for educational purposes - that promote good outcomes, are safe, accessible and relevant”. This idea was further explored by PST-D who argued that the problem of using ICT may

lead to an over-reliance on IT to communicate to others. There have already been studies that show that online social networking can lead to a decrease in physical social skills, as people become dependent on ICT and avoid personal interaction.

Expert B acknowledged the “delicate dance” with ICT in inclusive classrooms. With the use of technology, also comes a responsibility for the pre-service teacher to learn when and how to use it to appropriately support student learning. Lock and Friesen (2015) argued that networked digital technologies are part of the contemporary classroom. It is in the design of the learning with the purposeful integration of technology that will generate a more positive learning outcome. “The inclusive, accessible classroom is one in which all children are provided with multiple and flexible means of representation, expression, and engagement” (Lock & Friesen, 2015, p. 97). ICTs provide the teacher with multiple opportunities to represent information for the students and it also provides the student with different tools to demonstrate their knowledge.

Within this study, there was some apprehension for PSTs when dealing with specialised technologies for students identified with high special educational needs. Assistive technologies can assist learners with some special educational needs participate in education and can be particularly beneficial in facilitating writing, communication and play (Brodin & Lindstrand, 2003). They go on to comment that the “use of technology should be educationally led, rather than led by the technology itself” (p. 72). As argued by Dell, Newton and Petroff (2012) there is a “gap between the *possibilities* of assistive technology and the actual implementation of it in our school” (p. 305). Within the discussion, the PSTs were beginning to examine this gap and what they need to learn to be prepared to support student learning with assistive technologies.

Implications

Data from the online discussions suggest four implications for PSTs and for teacher education programs. The goal of the learning experience was to introduce the concept of inclusion and open pre-service teachers’ eyes to the reality of inclusion in today’s mainstream secondary classrooms. During this online learning experience, PSTs’ discussions indicated that they achieved a broader awareness of inclusion, they shared strategies for an inclusive classroom, and also reflected on their professional experience placements. Implications of the findings from this study are discussed below.

First, PSTs need a positive attitude towards inclusion. They need to approach it with an open mind. The data indicated a wide variety of knowledge, experience and perspectives connected to inclusive classrooms and teaching students with special education needs. As part of the teacher education training, PSTs require experiences where they can realise that their personal experience with inclusion may not be that which is promoted through policy or true inclusive pedagogical practices in today’s classrooms. Learning experiences should challenge PSTs’ perception and develop an openness to employing various strategies and approaches in creating and supporting an inclusive learning environment. It is about creating conditions to foster the development of a disposition of inclusivity.

Second, PSTs’ personal knowledge of inclusive practices are not strong. Many of them have doubts about their ability to teach students with special education needs due to the lack of preparation and limited confidence. It was evident from the data that they had minimal knowledge given limited or no reference to such items as legislation, curriculum and/or instruction. This gap should be observed as part of a continuum of practice. As the PSTs enhance their knowledge and skills through their academic program and professional experience placements their confidence and competence of inclusive practices and specific strategies will continue to develop. For teacher education, the concept of inclusion should not be a one-off effort with a single standalone course focused on inclusion. Rather, there should be multiple touch points where inclusive practice can be integrated into various courses (e.g., curriculum) so that PSTs are continually thinking about how to designing and facilitating learning for all students.

Third, it is important for PSTs and teacher education programs to recognise that different approaches and working in collaboration are common in inclusive education. There is no ‘one size fits all’ approach. Approaches may differ depending on the severity

of the educational need of the learner and the resources available within the school. One teacher cannot do it all, nor will they know it all. It is important for secondary PSTs as a discipline specialist to be encouraged work with other relevant stakeholders such as the administration, other teachers who specialise in special education, and parents and caregivers to promote an effective learning outcome for students. Within their practicum placements, partner teachers plays a critical role. Partner teachers in the role of mentors should share their practice, address questions, as well as guide the PSTs' practice in becoming an inclusive educator.

Fourth, there are some broad implications for initial teacher education programs. Teacher education programs need to have explicit teaching of knowledge and skills to support a range of students with special educational needs, including the use of assistive technologies. Also where possible, they should provide opportunities for targeted professional experience to work either in inclusive learning environments, a special needs school, in a special education centre within a secondary school, or to be mentored by a special education/inclusive teacher within mainstream classes. PSTs will require multiple opportunities to develop knowledge and skills in inclusion. At the macro-level, teacher education programs need to plan for such experiences across secondary programs. Intentionality in creating opportunities across a program is required for PSTs to experience and to develop knowledge and skills with regard to special education practices.

This online learning experience provided PSTs with the opportunity to discuss strategies for inclusive secondary classroom with experts in the field. Rayner and Allen (2013) suggested that PST placed a higher value on the expertise of practitioners when compared to academics, and like their study, the PSTs in this learning experience embraced the teachers as experts as an integral part of the learning process.

Utilizing online discussions with teacher experts as well as PSTs located in range of geographical locations facilitated the ability of learning about inclusive practices in different contexts, sharing a range of different approaches, and the ability to learn *from* and *with* others. Varcoe and Boyle (2014) identified that a “single approach to training pre-service teachers inclusive education is not sufficient” (p. 335). This learning experience was an introduction to the concept of inclusion for the secondary PSTs. Their teacher education program builds on these concepts in other curriculum and diversity courses providing them with multiple opportunities and different approaches to gain an understanding on how they might differentiate teaching to meet the specific learning needs of all students in inclusive classrooms.

Limitations and Directions for Future Research

This single case study has limitations in that the results come from an analysis of a course that occurred in one semester at a regional university. The findings may not be generalizable to other PST contexts. However, there is currently limited research in the area of inclusion in mainstream secondary classrooms. Future research needs to investigate specific strategies to support rich inclusive practice for secondary PSTs education or explore if there is discipline differentiation of inclusion in secondary schools.

A two prolong approach may be considered for future research. At the academic level, research needs to occur investigating the pragmatic elements. That is, studying what is occurring in classroom in relation to strategies and layering of pragmatic approaches in schools. Further, research needs to continue examine the impact of policies that support and facilitate inclusion and inclusive practices in schools. At the PST level when they become teachers, they should be encouraged to engage in studying their teaching using a participatory research approach. Using action research, participatory action research, and/or design based research methodologies, they will be able to interrogate and critically reflect on their practice. It provides a means for them to link theory to practice and practice to theory in terms of how to design and support inclusive education in their classrooms and schools. Special education and inclusion knowledge mobilization will continued to be advanced if both academics and teachers (former PSTs) engage in research.

Conclusion

The PSTs in the study explored through questions and discussion with experts their issues and concerns with regard to inclusion in secondary educational settings. The PSTs had an opportunity to openly interrogate the topic in a safe learning environment. They were able to assess what they know and believe, as well as, to begin to identify what more they need to learn about inclusion and inclusive practice. This online experience gave them the opportunity to determine the next steps in their professional learning to inform their knowledge and practice with regard to inclusion and inclusive education.

Within teacher education programs, conditions need to be created that foster the purposeful integration inclusion across the program. A standalone course offered in a program is not adequate in providing the necessary knowledge and skills for today's diverse classrooms. Rather, PSTs need to be continually learning about special education practices and strategies and given opportunities to apply theory to practice. Opportunities to engage in conversation with various stakeholders and to observe their practices will help them to develop their knowledge and skills. Through teacher education, we need to be helping PSTs to develop a disposition of inclusivity that impacts their day-to-day practice with students.

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