Preserve Teachers' Experiential Leading and Learning of Inclusion Strategies

Erin Keith
St. Francis Xavier University, Nova Scotia, Canada

Abstract

The purpose of the research was to investigate the relationship between preservice teachers' attitudes, funds of knowledge, and self-efficacy of using inclusive high-leverage instructional strategies while collaborating with others to curate an experiential collection of hands-on tools and artifacts. This investigation employed a mixed-method approach including pre- and post-surveys (n=18) as well as semi structured interviews of Year 2 BEd students (n=2). The findings of this study contribute to the existing research on inclusion self-efficacy that new teachers benefit from peer-led experiential learning opportunities. The results also support a pre-service program dialogue in reimagining and strengthening the design of BEd inclusion courses and address balancing students' experiential with theoretical knowledge, promote positive pre-service teacher attitudes, and enhance self-efficacy about inclusive teaching practices.

1. Introduction

Preservice teachers in the Bachelor of Education (BEd) program at St. Francis Xavier University, Antigonish, Nova Scotia, Canada (StFX) are enrolled in a two-year program at both the elementary and secondary certification levels. Within their program, BEd students are enrolled in two Inclusion courses, one in Year 1 and one in Year 2. The Year 1 course primarily focuses on the theoretical underpinnings of inclusion including research and sense-making related to equity, culturally responsive and relevant practices, intersectional identity supports, universal design for learning, differentiated instruction, etc. Year 2 continues with further theoretical grounding related to exceptionalities, adaptations, individualized program plans (IPPs), behaviour / trauma-informed practices, provincial systems, etc. and provides some practice-based learning such as implementing functional behaviour analyses, writing IPPs, curating adaptations for specific neurodiverse students, and curating visuals learning supports for 'hypothetical' students. Both courses weave in the guiding principles of Nova Scotia's (NS) Inclusive Education policy [1] and engage students in understanding the Multi-Tiered Systems of Support (MTSS) approach that all schools in the province endorse. While BEd students are no doubt provided with rich learning and theoretical k

knowledge related to inclusion within their preservice education, there is a wondering that students have not yet developed the real-life, experiential self-efficacy to teach neurodiverse students in inclusive classrooms [2], [3].

2. Research Questions

The following questions I, as a BEd faculty member of Inclusion II, addressed are:

1. What is the current level of Year 2 preservice teachers' attitudes, knowledge, and self-efficacy in inclusive practices?
2. Does the Year 2 preservice teachers' attitudes and funds of knowledge about inclusion explain their efficacy in inclusive instructional strategies?
3. How does collaborating with other Year 2 preservice teachers to curate an experiential collection of hands-on tools and artifacts through a student-led learning symposium impact their self-efficacy?

3. Body of Knowledge

According to the Multi-Tiered System of Supports: A Quick Guide [1], certified teachers must learn and mobilize their inclusion skills and competencies in the classroom in an equity-informed manner. Teachers must use "evidence-informed instructional and assessment practices that support the well-being and learning of all" (p. 2) [1], connect with students in relational, culturally and linguistically responsive ways, and ensure that they embed "flexible interventions and supports and resources matched to student strengths, challenges and interests" (p. 2) [1] daily. Although a focus on informed knowledge [4] is present in the policy [5], many of the skills required to enact the policy are praxis or experientially derived.

Several researchers' findings indicate that preservice teachers can effectively define inclusive education from a theoretical perspective, however they demonstrate dissonance between their funds of knowledge related to inclusive education and their praxis or teaching skills and competencies [6], [2], [7]. Funds of knowledge is a capacity-filled wisdom that is cultivated through mutually sharing individuals'

culture, language, and unique lived histories [22]. It is an asset-based, relational, and cultural learning process that originally involved students and their families [23], but has been further strengthened in the literature by reciprocal professional learning partnerships [24], such as students sharing stories, artifacts, and language about their teaching and learning journeys [25].

Surprisingly, very little has changed over the last 17 years in preservice education. Hodkinson conducted a similar critical examination and concluded that "preservice teachers had a good understanding of the theory of inclusion but that their knowledge and skills related to the practical delivery of inclusive education were limited" (p. 25) [8]. These parallel of results in previous studies despite the chronological disparity across them, indicate that preservice teachers' funds of knowledge and their skills and competencies about inclusion is worth further experiential investigation. More importantly, if students within Nova Scotia schools are to be responsively and equitably programmed for through high leverage teaching strategies [1] as outlined in the Inclusion policy [2], then further Faculty of Education academic programming decisions related to inclusion is critically needed.

Self-efficacy is based upon Bandura's social cognitive theory which states, "what people think, believe, and feel affects how they behave" (p. 25) [9]. With respect to education, a teacher's self-efficacy is their own belief, attitude, and confidence in their ability to responsively support the learning capacities or needs of all diverse students in their classrooms [10]. While StFX's BEd program is enriched with many confidence-building and leadership-oriented learning opportunities such as four gradual release in-school practicums, use of authentic case stories and hypothetical student learning profile discussions, and other dialogic, relational in-class activities, the effort primarily falls to the pre-service teacher to fully embrace and be reflexive on their own growth. It is acknowledged that some students may embrace this learning more fulsome than others and therefore the range of self-efficacy of teachers entering the field will vary widely [10]. If some students are graduating with their BEd feeling less self-efficacious, then the ripple effect into classroom inclusion praxis will be inauspiciously apparent. Investigating ways to counteract students' low self-efficacy through the curation of a collection of hands-on tools and artifacts may serve to promote and strengthen teachers' own beliefs and confidence.

4. Action Plan

It is well documented that new teachers face many barriers and often leave the profession within the first two years of service due to lack of self-efficacy, pedagogical confidence, district support, and stress /

burn-out [11], [12]. The prevailing negativity about teaching, and the profession itself, exasperated since Covid-19 in Canada [13], is difficult to overcome without concerted efforts to enhance self-efficacy, promotion, and resiliency of new teachers [11], [12]. To overcome these perceived deficits of new teacher retention, I choose to implement a paradigm shift using a "non-deficit" (p. 16) [14] philosophy founded on the theoretical framework of appreciative inquiry [15] to the investigation. By looking at the strengths of StFX's BEd program and drawing upon the values of Year 2 BEd students' experiences, this investigation will identify the "best of what is" (p. 129) [15] related to self-efficacy in inclusive instructional strategies. This paradigm shift aligns with the investigation's goal to determine how collaborating and co-constructing knowledge with other Year 2 preservice teachers through an experiential, 'real-life' student-led learning symposium impacts their own self-efficacy. This is not to exclude the deficits or concerns Year 2 BEd students may have. A complete and authentic picture of students' attitudes and beliefs was favoured. By capturing the in-depth, rich, and mixed-methods perceptions and values of Year 2 BEd students, the purpose of this study to investigate the relationship between preservice teachers' attitudes, funds of knowledge, and self-efficacy of using inclusive high-leverage instructional strategies was fully explored.

By using a strength-focused lens of "what is" (p. 101) [16], this study engaged participants using a "stream of positive conversation" (p.101) [16] which captured what "could be" (p. 101) [16] using a mixed-methods approach of pre- and post- surveys (n=18) and semi-structured interviews (n=2). Risks and concerns about participants' self-efficacy were revealed and documented as interview questions were phrased in an open- ended manner that invited safe and trusting disclosure of participants' experiences after engaging in the learning symposium.

The learning symposium was a research only event. Participants (n=18) engaged in six hands-on, experiential learning activities in small groups. Groups rotated every 25 mins to the next learning activity. Inclusion activities included learning about assistive technology (e.g., Makey Makey, C-Pen), creating and experimenting with sensory materials, participating in movement circuits, valuing families and engaging parents in dialogue about their child, and the use of visuals to support learners. Each learning activity had a 'creation' or 'take-away' element such as a fidget toy, sensory bag, first/then/next board, etc. All learning activities were led by peers, Year 2 BEd students, who volunteered to share their knowledge and passion for their topic. These learning activity facilitators were not included in the participant pool.

As in all qualitative methodology, triangulation of data from multiple perspectives helps to ensure

validity and protects against biases. Triangulation is defined as "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (p. 126) [17]. In triangulation, the object of the study can be best understood when approached by a variety of research methods.

This investigation employed a mixed-method approach including pre- and post-surveys (n=18) as well as semi-structured interviews of Year 2 BEd students (n=2). Participants were selected through both convenience and snowball sampling methods. The survey instrument employed was The Teacher Efficacy for Inclusive Practices (TEIP). Drawing on two sources of data, this investigation embedded qualitative data from rich, semi-structured interviews into the two broader quantitative surveys data (pre/post) in an effort to provide context, depth, and rigour to the survey responses.

In the first part of the study, Year 2 BEd students were invited to complete an online pre-survey about their attitudes, knowledge, and self-efficacy in inclusive practices. Completion of the questionnaire took place online and was approx. 15 minutes to complete, prior to the learning symposium. There was no personal information documented to ensure identities were anonymized. Participant data was numbered; individuals were only referred to by the occupation as a 'preservice teacher.'

Participants were then invited to participate in a 2-hour onsite learning symposium within the Faculty of Education at StFX on Monday, March 6 from 6:00 – 8:00pm. Participants (n=18) engaged in the six hands-on, experiential learning activities facilitated At the end of the symposium, Year 2 preservice teachers who attended, completed a post-survey about their attitudes, knowledge, and self-efficacy in inclusive practices in the same format as the pre-survey. In addition, Year 2 BEd students were invited to participate in a semi-structured interview led by the investigator inquiring about how their efficacy and funds of knowledge has shifted based upon the hands-on, experiential learning opportunity. Two BEd students volunteered to participate in an interview via Zoom, a few days after the learning symposium. Interviews were recorded using audio recording procedures, transcribed, and member checked. Each interview took approximately 20-30 minutes. Any information that could identify the participant was removed.

Johnson and Onwuegbuzie [18] assert that research questions and sequence of questions are best and most fully answered through mixed research explanations. Creswell and Plano Clark [19], as supported by Mistry et al. [20], suggest that such an approach can "offset the weaknesses of both quantitative and qualitative research" (p. 9). For this reason, both a pre- and post-survey instrument along with semi-structured interviews will be used for a fulsome analysis.

According to Gay et al. [21], there are several guidelines to be considered when planning and conducting interviews. Some of these guidelines include: (1) include both open-ended and closed questions; (2) pilot test the questions with a group of respondents who share similar characteristics to the research participants; (3) listen more and talk less; (4) allow wait time and tolerate silence; (5) keep a neutral demeanor and do not debate responses; (6) allow an opportunity for other comments as they can provide an excellent source of "discrepant data" (p. 389) [21]; and, (7) ensure participants of their confidentiality and let them know that a follow up conversation may be required.

5. Analysis and Findings

Results from the pre/post surveys clearly outlined the positive change in preservice teachers' self-efficacy after the learning symposium. During the pre-survey, preservice teachers responded to the TEIP inclusive practice questions with a mean score of 4.4 (somewhat agree). After the learning symposium, post-survey results indicated an increased mean score of 5.1 (agree). All TEIP inclusive practice questions indicated a significant increase between the pre and post average response score (p=0.00000024). Specific areas of greatest self-efficacy were evident in the post-survey for questions related to getting parents involved in school to support their child, supporting students who are physically aggressive, and informing others about laws and policies related to inclusive practice (see Figure 1).
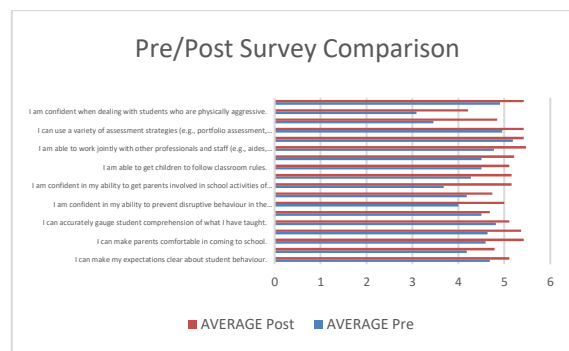

Figure 1. Pre/Post Survey Comparison by TEIP question

Similarly, comments from preservice teachers on the post-survey confirmed a strong sense of self-efficacy as a result of their two-year BEd program, however several participants noted the lack of peer-led, experiential opportunities throughout their program, especially in their Inclusion I and II courses. One participant stated, "I think that this symposium needs to be in place for future educators. It was amazing to learn all this information before graduating but if it was applied before at the beginning

of this two-year degree, I would be better equipt (sic)." Another participant who had similar views commented, "I think hands on learning experiences are crucial to the Bachelor of Education program. As a year 2 pre-service teacher, I wish this was implemented in year 1 and continued to grow onwards. I am thankful I was able to participate in this experience because if not, I wouldn't have had these practical strategies." Interviewed participants had similar views about their lack of hands-on, experiential learning opportunities in their Inclusion classes. Interviewee A did acknowledge the efforts her Inclusion II instructor made in bringing in various student visuals and fidget tools, however she did comment it was a one-time occurrence that seemed more like "show and tell" than rich, embedded, lasting learning. Interviewee B had a different course instructor for Inclusion II but had a similar experience as Interviewee A. He acknowledged the benefit of listening to a guest speaker who brought in materials and resources to support students who were deaf. The hands-on nature of seeing and touching the speaker's resources were impactful he said, but it was more of a "one time thing" experience.

Further examination of the two interviews, both in-depth and over time, resulted in three specific keywords surfacing from the thematic analysis. These keywords were also evident in some of the written comments on the post-surveys. This first coded keyword was "commitment to learn." Many preservice teachers in the study showcased that although they may not feel fully confident in the inclusion practices outlined in TEIP, several commented on their wish to continue their learning. Their unwavering commitment to include all students into their future classrooms was an aspiration mentioned by participants that they attributed to stemming directly from their two-year BEd program learning. Many felt confident to seek out supports from other school professionals so that they could continue to support their students in an informed and evidence-informed way. The second keyword was "wish for more." Sentiments like, "Amazing! Learned so much! This is how our inclusion classes should be taught" were prevalent across data sets (e.g., quantitative and qualitative). Experiences similar to the learning symposium could be infused into BEd program requisites such as Professional Learning (PL) days, and Practicum preparation days. Reimagining who is leading these sessions could be considered from a faculty perspective since many of the speakers are internal staff to the BEd program or guest speakers. Surprisingly, none of the speakers invited are Year 2 BEd students who have extensive funds of knowledge to potentially share. Thirdly and complementary to the second keyword is peer leadership. Both Interviewees commented on the "intense energy level" felt when their peers were leading learning through the activity. Learning

facilitators were not seen as experts but rather leaders who shared information about inclusive practice that impassioned them. The facilitators were already known to be passionate about their topic even before participants joined their activity. For example, the facilitator who led the movement activity is a knowledgeable, enthusiastic supporter of physical education. Interviewees stated they knew who she was and what her skills were even before she began her learning symposium activity. This 'heart' for her topic made for an informative, engaging, and experiential learning experience. The same message was conveyed by Interviewees for the assistive tech learning facilitator, the parent engagement learning facilitator, and the Makey Makey learning facilitator. As a faculty member in the BEd program, the untapped potential of having Year 2 BEd students lead a topic of their choice and within their own funds of knowledge is an eye-opening and invigorating realization.

6. Conclusion

Overall, when preservice teachers who have positive attitudes towards inclusion co-center their learned teaching strategies and competencies with theory together, all students benefit. If preservice teachers are leaving the BEd program feeling unprepared to practically support students in real-world inclusion scenarios, then negative attitudes towards including such students may surface. This is unfair, inequitable, and misaligned to Nova Scotia's teaching standards. This research aimed to merge theoretical funds of knowledge and praxis more intricately so that students benefit from increased preservice teachers' self-efficacy related to inclusion understandings demonstrates that peer-led, experiential learning has a significant impact, in students' inclusion knowledge, their self-efficacy, and how faculties can reshift pedagogical practice in BEd programming towards more peer-led, funds of knowledge driven opportunities.

7. References

[1] Government of Nova Scotia. (2019). Multi-tiered system of support: A quick guide. https://www.ednet.ns.ca/psp/files-psp/docs/mtssquickguideen.pdf (Access Date: 11 November 2022).

[2] Gehrke, R.S., and M. Cocchiarella, "Preservice Special and General Educators' Knowledge of Inclusion", Teacher Education and Special Education, 36(3), 2013, pp. 204–216.

[3] Alsarawi, A. and R. Sukonthaman, "Preservice Teachers' Attitudes, Knowledge, and Self-Efficacy of Inclusive Teaching Practices", International Journal of Disability, Development and Education, 2021, DOI: 10.1080/1034912X.2021.1922992

[4] Sensoy, O., and R. DiAngelo. Is Everyone Really Equal? (2nd ed.). Teachers' College Press. 2017.

[5] Government of Nova Scotia. (2020). Nova Scotia Inclusive Education Policy. https://www.ednet.ns.ca/docs/inclusiveeducationpolicyen.pdf (Access Date: 11 November 2022).

[6] Alexiadou, N., and J. Essex, "Teacher Education for Inclusive Practice Responding to Policy", European Journal of Teacher Education, 39(1), 2016, pp. 5–19.

[7] Majoko, T. "Inclusion in Early Childhood Education: Pre-Service Teachers Voices", Early Child Development and Care, 186(11), 2016, pp. 1859–1872.

[8] Hodkinson, A. "Conceptions and Misconceptions of Inclusive Education: A Critical Examination of Final-Year Teacher Trainees' Knowledge and Understanding of Inclusion", Research in Education, 73(1), 2005, pp. 15–28.

[9] Bandura, A. Social foundations of thought and action: A social cognitive theory. Prentice Hall, 1986.

[10] Alhumaid, M. M., S. Khoo, and T. Bastos, "Self-Efficacy of Pre-Service Physical Education Teachers Toward Inclusion in Saudi Arabia", Sustainability (Basel, Switzerland), 12(9), 2020, pp. 3898–3899.

[11] Kutsyuruba, B., L. Godden, and J. Bosica, "The impact of mentoring on the Canadian early career teachers' well-being", International Journal of Mentoring and Coaching in Education, 8(4), 2019, pp. 285–309. DOI: 10.1108/IJMCE-02-2019-0035.

[12] Stoloff, S., M. Boulanger, É. Lavallée, and J. Glaude-Roy. "Teachers' indicators used to describe professional well-being," Journal of education and learning 9(1), 2020, pp. 16–29.

[13] Godber K. A., and D. R. Atkins, "COVID-19 impacts on teaching and learning: A collaborative autoethnography by two higher education lecturers", Frontiers in Education, 6, 2021, https://www.frontiersin.org/articles/10.3389/feduc.2021.647524 (Access Date: 11 November 2022).

[14] Bushe, G. R. "Dialogic OD: A theory of practice", Organization Development Practitioner, 45(1), 2012, pp. 11–17.

[15] Cooperrider, D. L. and S. Srivastva, "Appreciative inquiry in organizational life", Research in Organizational Change and Development, 1, 1987, pp. 129–169.

[16] Norum, K. "Appreciative Inquiry as Conversation", 1987, http://link.springer.com/chapter/10.1007%2F978-0-387-75843-5_7#page-1 (Access Date: 11 November 2022).

[17] Creswell, J. W. and D. Miller, "Determining validity in qualitative inquiry", Theory into Practice, 39(3), 2000, pp. 124–131.

[18] Johnson, R. B., and A. J. Onwuegbuzie. "Mixed methods research: A research paradigm whose time has come," Educational researcher 33(7), 2004, pp. 14–26.

[19] Creswell, J. W., and V. L. Plano Clark, "Designing and conducting mixed methods research", Sage, 2007.

[20] Mistry, R. S., E. S. White, K. A. Chow, K. M. Griffin, and L. Nenadal. "A mixed methods approach to equity and justice research: Insights from research on children's reasoning about economic inequality." Advances in child development and behavior, 50, 2016, pp. 209–236.

[21] Gay, L. R., G. E. Mills, and P. Airasian, "Educational research: Competencies for analysis and applications" (10th ed.), Pearson Merrill.

[22] Turner, E. E., and C. Drake, "A review of research on prospective teachers' learning about children's mathematical thinking and cultural funds of knowledge", Journal of Teacher Education, 67(1), pp. 32–46, 2016, DOI: 10.1177/0022487115597476.

[23] Moll, L. C., C. Amanti, D. Neff, and N. Gonzalez, "Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms." Theory Into Practice 31(2), 1992, pp, 132–41. http://www.jstor.org/stable/1476399 (Access Date: 17 March 2022).

[24] Moll, L. C., "Elaborating funds of knowledge: community-oriented practices in international contexts", Literacy Research: Theory, Method, and Practice, 68(1), 2019, pp. 130–138. DOI: 10.1177/2381336919870805.

[25] Schnellert, L. and D. Kozak, "In situ hybrid spaces as generative sites for teacher preparation", McGill Journal of Education / Revue des sciences de l'éducation de McGill, 54(1), pp. 1–23, DOI: 10.7202/1060860ar.