PREPARING LEARNING TEACHERS: THE ROLE OF COLLABORATIVE INQUIRY

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ABSTRACT
This paper describes a two-year action research study of 20 pre-service teachers (referred to in the context of this study as intern teachers) in their final 15-week practicum, during which they engaged in a type of action research known as collaborative inquiry. Over the course of their practicum, these intern teachers were interviewed monthly to ascertain the impact of collaborative inquiry on their confidence and competence as emerging reflective practitioners. Interview data were triangulated with observations by their practicum mentor teachers, resulting in three skills that participants believed could be attributed to implementing a collaborative inquiry model during practicum: intern teachers increased their understanding of the reflective process and its role in improving their instructional effectiveness; intern teachers increased their skill and confidence in working with colleagues to address pedagogical and practical problems; and intern teachers increased their ability to engage in professional learning as teacher-researchers, that is, in their ability to link theory with practice.

INTRODUCTION
Authors across North America and Europe have documented a recent notable shift in expectations of education and schooling (see, for example, Ben-Peretz, 2001; Gray, 2010; Sahlberg, 2007; Zeichner, 2011). Indeed, schools have been tasked with solving myriad socio-political phenomena (challenges?) (Stein, 2001), the quantity and nature of which may be approaching an untenable level; this, as evidenced in literature that explores
increased attrition rates among early-career teachers (Alberta Teachers’ Association, 2011).

In this context of heightened social complexity and public scrutiny, teacher preparation programs are likewise (similarly?) being challenged to do more, and to do better, in preparing future educators to succeed and thrive in an increasingly demanding profession. Faculties of Education acknowledge the value (importance?) in graduating teachers who are engaging, inspiring, adaptable, knowledgeable, and resilient, able to respond appropriately to professional landscapes that shift from the conventional to the innovative. To ascertain their effectiveness in meeting this challenge, some faculties have gleaned data from Quality Assurance Reviews; others have relied on government policy to re-shape their guiding principles and to revise programming; (while) others have maintained a stoic certainty with the status quo, claiming that---under the purview of universities’ academic freedom---their role is more all-encompassing and complex than simply preparing technicist classroom practitioners.

Further complicating the landscape (field?) of teacher preparation is the assertion by some authors (see, as one example, Darling-Hammond & Baratz-Snowden, 2007) that research in this area is a relatively young and unproven science, and that the characteristics of effective teacher preparation programs are highly contextual, embedded in fluid socio-political environments. Yet, a study by Crocker & Dibbon (2008) has identified promising practices in Canadian Faculties of Education that, they contend, contribute to the successful preparation of teachers who are able to thrive in 21st-century classrooms. They identify five programmatic and curricular characteristics of such programs, including: high quality and lengthy practica (practicum?) experiences; cohort structures that support and enhance collaborative learning; sustained explicit links between the theory and practice of teaching; partnerships and shared expectations with practica-hosting schools; and attention to the professional or non-pedagogical aspects of teaching.

This paper describes a two-year action research study of 20 pre-service teachers (referred to in the context of this study as intern teachers) in their final 15-week practicum, with particular attention to incorporating the first three strategies outlined above (i.e. length of practicum, collaborative learning cohorts, and theory-practice praxis). First, the paper will explore the notion of professional induction as a commonly applied strategy to supplement degree-granting teacher preparation. Induction programs will be discussed as they are situated within and outside of the practica. Next, the paper will describe the collaborative inquiry process implemented with intern teachers during this study. Semi-structured interview data will then be presented that describes the extent to which intern teachers felt that this 15-week collaborative inquiry experience helped them participate in supportive partnerships, enhance collaborative professional learning, and develop their self-awareness as teacher-researchers.
Post-graduation Induction

The challenges and ordeals experienced by new teachers are well documented (see, as examples, Anhorn, 2008; Cherubini, 2007; Hellsten, Prytula, Ebanks, & Lai, 2009; Ingersoll & Strong, 2011; Loughran, Brown, & Doecke, 2010; McCluskey, Sim, & Johnston, 2011) and seem to be dominated by metaphors of survival: ‘trial by fire’, ‘sink or swim’, ‘treading water’, or ‘eating your young’. Each is characterized by a hostile environment that allows little time or support for beginning professionals to understand and adapt to the culture of the classroom or school. Coupled with excessive competing demands---pedagogical, extra-curricular, and socio-political---the stage is set for increased attrition and disengagement, loss of idealism and identity, and isolation. Anhorn (2008) observes that,

Difficult work assignments, unclear expectations, inadequate resources, isolation, role conflict and reality shock are some top reasons for the horrendous attrition statistics with the widespread “sink or swim” attitude that is prevalent in so many schools. A beginning teacher is expected, from the first day of her career, to complete all tasks asked of the veteran teacher (p. 15).

To mitigate the dispiriting environments experienced by some beginning teachers, a variety of induction programs have been built for the express(ed?) purpose of creating the conditions and relationships to support teachers during their first few critical years. Most induction opportunities are post-degree programs that fall under the purview and sponsorship of school districts. Although varying in goals, levels of formality, structure, length, and planned activities, these programs are often, as Wong (2004) describes “a highly organized and comprehensive form of staff development, involving many people and components....” (p. 379). That is, induction most often functions as workplace socialization that trains new employees in the most rudimentary skills required to ‘fit in’ to the daily operations of the organization (for descriptions of other induction programs, see examples such as Cherian & Daniel, 2008; Harding, 2015; Hellsten, Prytula, Ebanks, & Lai, 2009).

These types of post-graduation induction programs can usually be described as pragmatic, technicist, and competency-base. They may include, for example, activities such as:

- Several days of initial orientation, typically focusing on district handbooks, policies, and procedures;
- Systematic workshop training over one or two years focusing on system goals and directions;
- Mandatory participation in learning networks, often in the form of episodic professional development events;
- Evaluation by school or system administrators, often based on lesson observations of varying duration or frequency.

However, it cannot necessarily be assumed that these training opportunities will automatically provide a forum for addressing new teachers’ learning needs. Without an explicit endorsement of induction as a shared responsibility integrated into a professional
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culture that supports collaboration and problem solving, new teachers may still find themselves alone with their fears, questions, and frustrations.

The Role of Teacher Education in Induction
To support and integrate some of the goals of induction, it seems a reasonable assertion that teacher preparation programs might be included as a partner in this professional culture. Darling-Hammond (2006) identifies two ways that (efficacious?) teacher education programs might do this: by offering repeated opportunities to bridge the theory-practice gap, and by embedding opportunities for collaborative professional relationships. Yet, examples of programs that achieve these outcomes are not readily identifiable. In their broad examination of teacher education programs, Graham and Phelps (2003) point out that, “Research to date on the nature and practices of teacher education indicates it is a somewhat conservative enterprise” (p. 2). Zeichner (2010) describes the dominant model that guides much pre-service teacher education as one in which, “prospective teachers... learn theories at the university and then go to schools to practice or apply what they learned on campus” (p. 90 - 91). That is, disconnect(ions?) occur(s) between the reality of teaching and the theory of pedagogy that is (are?) sometimes implicitly sanctioned by teacher preparation faculties. Induction to the profession is seen to be the responsibility of schools where the hard work and pragmatics of teaching happens, while contemplation and reflection about the scholarly aspects of teaching transpires in a more rarefied setting on campus.

In what ways can, or do, teacher preparation programs participate in or contribute to the goals of induction? Some Faculties of Education have broad stakeholder engagement with professional associations, central office personnel, government, and students that informs and situates the skills necessary for a smooth transition into successful beginning teaching. For example, on-campus workshops may be offered by professional association members about the responsibilities, ethics, and professional protocols required for membership in the teaching profession. In addition, policy-makers or curriculum developers from various levels of government may be invited to provide teacher candidates with information about the legal guidelines and requirements of the profession. Likewise (In a similar way?), superintendents or principals may be invited to explain supervision, evaluation, goal-setting, contracts, and certification.

These multi-agency models are characterized by a sustained and reciprocal dialogue between (among?) many stakeholders about the knowledge and skills essential for pre-service teachers to successfully link the academic on-campus portion of the program with the in-field or practicum portion. However, it is still far more common for a (the) bulk of these responsibilities to be left to those teachers and administrators in practicum schools.

Practicum as induction. The practicum component is frequently identified as one aspect of teacher preparation that most closely mimics those experiences of induction. During this time, pre-service teachers are offered opportunities to problematize their understanding of the links between pedagogy and practice. The most frequently identified
strategy to achieve this praxis is mentorship (see as examples, Kelly, 2004; van Ginkel, Oolbekkink, Meijer, & Verloop, 2015).

However, Zeichner (2000), among others, contends that the role of practica in teacher education has become under-funded, under-valued, and irrelevant to the extent that, “cooperating teachers and university instructors are often mutually ignorant of each other’s work and the principles that underlie it” (p. 61). A decade later, Zeichner (2010) continues to be critical of the campus-field schism, noting that “the disconnection between campus and field-based teacher education” (p. 90) remains, as does “hegemony over the construction and dissemination of knowledge” (ibid), despite growing calls from schools for increased collaboration.

**Thinking otherwise about practicum as induction: Collaborative inquiry.** What processes or ways of thinking can be fostered in pre-service teachers that might serve as a template to help them approach a breadth of professional challenges or obstacles? Cochran-Smith and Lytle (2009) advocate re-thinking the relationship between theory and practice, something that may be accomplished by helping pre-service teachers assume an *inquiry stance*. Similarly, the Association of Canadian Deans of Education (2005) identifies at least two proficiencies to guide these ways of thinking: a disposition of research and scholarship toward teaching, and the ability to collaborate with peers to solve instructional problems.

In combination, these characteristics describe the intent of the collaborative inquiry process that was implemented during this study. Collaborative inquiry is similar to models of participatory action research that are used in a number of disciplines (Minkler & Wallerstein, 2009), beginning with teams of teachers exploring and answering (conundrums or?) questions about their professional practice (Adams & Townsend, 2014). The lengthy and meritorious use of action research as a methodology employed by educators is well documented; however, particular reliance in this study was placed on the notions of reflective practice as described by Argyris and Schön (1974), Schön (1983), and Loughran (1996).

One compelling result of participation in collaborative inquiry is the praxis that is generated when teachers engage in iterative cycles of de-constructing and re-constructing their professional understanding and instructional practice. That is, participating in collaborative inquiry encourages teachers to think about and, more often, talk about what a theory suggests, what the classroom reality demands, what the gap between the two looks like, and what next-day strategies they might apply in efforts to decrease or eliminate such a gap.

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While this model is often accepted as a valuable strategy to enhance teacher professional development, it is less often implemented during pre-service teacher preparation. On occasion, an inquiry-based approach may be applied during on-campus modules or courses, evidenced by the use of case studies or video analysis. However, participation in collaborative inquiry during practicum is less common and often does not increase student teachers’ skills as reflective practitioners, collaborative learners, and fledgling researchers. More likely, in the absence of formal supports for continued ‘inquiry-type’ thinking in a practicum setting, student teachers focus on the numerous critical demands of demonstrating their immediate teaching competence.

The model of collaborative inquiry that was facilitated by the university supervisor with intern teachers during their practicum was based on Schön’s (1983) notion of reflective practice integrated with Loughran’s (1996) stages of reflection. Figure 1 describes the phases and steps of this process.

**Figure 1: The Collaborative Inquiry Process Implemented with Intern Teachers**

A Process Description
As part of a pilot project to examine practicum strategies that might enhance transition into the profession, a cohort of twenty pre-service teachers (referred to hence forth as intern teachers) volunteered to participate in collaborative inquiry as part of the requirements of their final 15-week advanced student teaching practicum. Prior to this, participants had completed three additional practica comprised of a total of approximately 20 additional weeks of student teaching in a variety of content areas and grade levels. Additionally, all intern teachers had completed all academic work to fulfill degree requirements. Thus, the
practicum during which this study occurred was a culmination of participants’ Bachelor of Education degree at this institution.

Intern teachers were provided half-time release from classroom teaching in order to apply the aforementioned process of collaborative inquiry to address their teaching challenges, conundrums, or curiosities. Intern teachers met monthly with each other and their university supervisor, and weekly with their mentor teachers, to share reflections and preliminary answers to their carefully crafted essential inquiry question. These essential questions varied, depending on the teaching and learning context of each intern teacher. Several explored areas of inquiry in collaboration with their mentor teacher, others as a team with other intern teachers. For example, one intern/mentor team explored the question, “What objective-based learning strategies in the English curriculum best meet the needs of English as an Additional Language (EAL) students?” Another intern was part of a school-wide inquiry that asked the question, “In what ways will implementation of a standard set of self-regulation strategies impact student engagement and achievement?”

The Role of the University Supervisor
In addition to providing guidance and advice about the direction and content of each intern teachers’ collaborative inquiry, the university supervisor observed lessons, liaised between interns and mentors, instilled confidence, and ignited motivation. In addition, the university supervisor was responsible for active listening and problem solving to offer intern teachers opportunities to recognize, direct, and accept responsibility for growth. This role was based on the following principles:

1. Positive Regard – The university supervisor conveys, verbally and non-verbally, respect and concern for the values, beliefs, opinions, and experiences of the intern teacher.
2. Progression toward Autonomy – The university supervisor sustains in the intern a commitment to learning and action, ensuring that the intern teacher acknowledges and accepts primary responsibility for both.
3. Describing Rather than Judging – The university supervisor suspends judgment and lets the intern see that the conversation will not be based on personal value regarding ideas, opinions, or behaviors. A typical strategy used here is extension: “Tell me more about that.” “Talk about what that looks like.”
4. Encouraging Responsibility – The university supervisor is careful not to rescue, save, or attempt to explain reasons for events about which the intern is reflecting.
5. Reciprocity - To mutually give and receive is one definition of reciprocity. As it applies to induction relationships, the principle of reciprocity is enacted when an intern teacher’s learning is shared and mutually beneficial to the university supervisor.
6. Maintain Focus on Purpose – Key aspects of the conversation are synthesized; comments are re-directed by the university supervisor toward those aspects of professional practice that both agreed be the primary focus of the dialogue.
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The Role of the Mentor Teacher

In the context of this study, mentoring was defined as a process of reciprocal growth in which collaboration between beginning and experienced teachers positively influenced teaching competence and dispositions toward instructional growth. Mentor teachers were recommended by their school leaders as possessing the following qualities:

1. Effective communication skills, particularly empathetic active listening.
2. Timely, supportive, authentic assistance when sought by intern teachers.
3. Appreciation for and modeling of career-long growth, curiosity, and quest for continued understanding.
4. Appropriately and judiciously shares accumulated experience and wisdom.
5. Compassion and a growth mindset.

DATA COLLECTION

This study explored the contention that by offering intern teachers opportunities during practicum to participate in collaborative inquiry that promoted purposeful reflection, collaborative problem solving, and a sustained role as teacher-researcher, they may achieve some of the gains in professional learning achieved by their more experienced colleagues.

Data were collected over each of the two years to explore the question: In what ways can a collaborative inquiry structure implemented during practicum enable intern teachers to pursue and meet their professional responsibilities as career-long learning teachers? Specifically, twenty intern teachers were interviewed to uncover their perceptions of how their participation in collaborative inquiry impacted their ability to cope with the obstacles, challenges, and uncertainties inherent in the early days of learning to teach. Interview data was analyzed using Neuman’s (1997) thematic coding process.

RESULTS

During the first days of the study, intern teachers were observed assuming a rudimentary role of teacher-researcher. None had any first-hand experience with conducting this type of action research prior to this practicum yet, with guidance from the university supervisor, support from the mentor teacher, and sustained periods of time each day to engage in inquiry, all were able to demonstrate competence in framing a research question based on a professional goal; designing a method for collecting data; analyzing data; and finding appropriate---even innovative---ways of presenting research results.

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2 Three questions guided the semi-structured interviews of intern teachers, including: In what ways did the collaborative inquiry process impact your ability to achieve your teaching responsibilities? How did involvement in collaborative inquiry influence your perspective on professional learning? What skills, knowledge, of attitudes were impacted by your involvement in collaborative inquiry?
When interviewed, intern teachers identified three primary competencies they felt had been enhanced during their completion of a 15-week cycle of collaborative inquiry. These competencies included their increased (1) understanding of the process of reflection and the role it plays in improving practice; (2) skill and confidence in working with colleagues to address pedagogical and practical challenges; and (3) ability and comfort in assuming a role as teacher-researcher to bridge the theory/reality gap.

**Understanding the Process and Role of Reflection**

The collaborative inquiry process employed in this study incorporated, by its very nature, the expectation that intern teachers would engage in sustained reflection of various types. While it could be expected that they would report feeling more or less comfortable with various stages and types of reflection as a result of their participation, all were able to move beyond rhetoric to provide evidence of their commitment to reflection and action. All intern teachers chose to maintain journals, reflective blogs, or in other ways provide evidence of their commitment to reflective practice. As well, most of them created videos of their classroom performance and, in many cases, highlighted ways in which a focus on their essential question and guided reflection had caused them to improve aspects of their teaching.

Intern teachers identified the following strategies to be most helpful in honing their skills of reflective practice:

- Provide even more formal and informal opportunities for professional dialogue.
- Differentiate learning opportunities to support both individual and team professional inquiry/research.
- Build into all levels of practica a requirement for reflective practice and self-assessment.
- Base evaluations of effectiveness, in part, on evidence of their reflections on growth and goal achievement.

Furthermore, because some opportunities for reflection occurred in collaboration with other intern teachers and colleagues, participants commented on their enhanced comfort in publicly articulating their goals, sharing learnings, and contributing in more meaningful ways to the collective expertise of the profession. Several intern teachers suggested that this process would serve as a model they would implement when starting their journey of professional learning as first-year teachers. One intern teacher commented that, “I feel that I now know the resources and process to manage and plan for my own classroom, with the realization that I will constantly be modifying and adapting my practice based on information that I gather.”

**Increased Skill in Collaborative Participation**

Intern teachers indicated that they learned best when they had the chance to create and reconstruct their teaching knowledge and skills in collaboration with others; when they had the time to apply their new learnings and assess the effectiveness of their efforts; and when they had the certainty that a climate of trust, confidentiality, and mutual respect
would characterize the professional environment. Accordingly, effective professional learning for these intern teachers appeared to be socially mediated, even as it was individually understood and applied. One intern teacher expressed her certainty that “having this experience has allowed me to grow and develop my skills in a supportive and collegial atmosphere. I have built relationships that will now support me beyond the practicum experience.”

Too often, pre-service teachers are encouraged to accumulate checklists of tasks accomplished, workshops attended, famous speakers heard, and locations visited, all with the goal of ‘doing’ rather than ‘learning.’ Intern teachers in this study indicated their preference for collaborative approaches to their learning that focused on achieving professional and team goals in a site-embedded location. Several made reference to the professional learning community or community of practice in their practicum school that helped them more fully engage in their inquiry-based professional learning.

**Increased Confidence as a Teacher-Researcher**

These intern teachers commented on their increased appreciation for, and understanding of, the value of research even before their formal careers began. They believed they would now enter the profession more confident in their ability to engage with educational literature, sure of the value of classroom research, and able to frame their professional curiosities using a model that could be easily implemented to guide career-long learning.

In addition, the requirement that intern teachers plan their goals and professional growth using an inquiry model provided them with a working document to which they could make frequent reference and, if necessary, make revisions based on collected evidence. All such documents showed signs of a healthy amount of deletions, post-it notes, additions, and highlights: indications that the process was authentic, that intern teachers were grappling with situating their new knowledge and skills, and were revising their approaches to chronicling their learning and professional growth.

Several intern teachers made reference to the importance of learning how to craft an ‘essential question’ that would guide their practice throughout the practicum. One explained that, "When I first had to create a guiding question, I asked “What’s that”? After talking it through with my [university] supervisor, it became easier to stay focused. When I had to frequently look back at my inquiry question, I could see how I was learning and growing."

Intern teachers’ essential question was based on an authentic curiosity or issue arising from their classroom realities; the process of creating the question relayed to them the message that incremental growth, not ‘perfection’, was the expectation. Intern teachers reported that as a result of this question, they learned the value of planning: planning for success; planning with students in mind; planning for emergencies and exigencies. This was yet another aspect of professional practice about which they reported feeling more positively disposed to begin their careers.
Fostering the mindset of a teacher-researcher in these early stages of pre-service development required a commitment from both the university supervisor and mentor to facilitating the sustained learning of intern teachers in which they could concentrate on critical areas of exploration long enough to incorporate into practice essential knowledge, skills, and attributes.

**DISCUSSION**

Intern teachers identified two further considerations as essential aspects of the collaborative inquiry process: the duration of engagement and the quality of mentorship.

**Time to Reflect and Act**

Intern teachers assumed responsibility for a half-time teaching load for 15 weeks; consequently, their introduction to the profession was measured. They commented that they did not feel as though they were in a struggle for professional survival; rather, they described themselves as beginning educators on a learning journey with colleagues. Several identified the best thing about the process was the opportunity to experience some of the harsh realities of teaching while they had limited responsibilities and were supported by colleagues. More than one commented, “I’m so glad [this] didn’t happen to me in my first year of teaching, when I was on my own with a full teaching load.”

**Impact of Mentors**

Interview results also pointed to the importance of a skillful mentor in supporting intern teachers’ learning, struggles, and achievements during collaborative inquiry. One intern teacher contended that, “Mentorship programs are crucial to the future success of new teachers.”

Teacher mentors participating in this project had little formal experience in interacting with intern teachers’ professional learning using a collaborative inquiry process. However, all had various levels of previous engagement with collegial coaching or mentoring, and so approached their role in supporting the intern teaching in ways commensurate with their preferred model of support. In this regard, study findings support literature about the skills and disposition of mentor teachers necessary to best facilitate intern teachers’ meaningful and productive participation in collaborative inquiry.

The following list outlines several critical characteristics that were identified by intern teachers as most helpful in supporting their learning and growth. They indicated that effective mentor teachers:

- Provided their interns as much support as they needed, quickly learning when to step in and when to step back; when to offer advice, and when to let the interns discover something for themselves.
- Engaged their interns in regular conversations about teaching and learning, about the needs of students, and about the culture of their schools.
- Listened to their interns and responded adroitly without criticism.
• Focused their feedback and comments on the intern’s inquiry question, limiting problem solving to one issue at a time.
• Shared materials, resources, time, energy, and hope.
• Conveyed the certain belief that their interns would be successful.
• Advocated for their interns, making sure others knew about the effectiveness of their work, getting them involved in school and district professional learning opportunities.
• Were quick to help and slow to judge.3

CONCLUSION
Schools have been places where the hard work and challenging practicalities of teaching happens, whereas the teaching of teachers gets done in a more rarefied academic setting. Inquiry and study of teachers has been something that gets done to and about them, while their own learning typically happens outside of the ‘daily grind’. However, using an extended practicum to involve intern teachers in a process of collaborative inquiry requires that they question some aspect of their teaching practice and, in doing so, introduces them to a process that integrates the practical with the conceptual.

Limitations and cautions are necessary when implementing this approach with pre-service teachers. As indicated in Figure 1, the particular collaborative inquiry model implemented in this study placed emphasis on evidence-based practice, making explicit the expectation that intern teachers would be purposeful and consistent in gathering and sharing persuasive evidence of their growth in teaching effectiveness. Some intern teachers reported feeling that they had far more questions than their ability to find answers. Others felt vulnerable and uncomfortable when first required to cast doubt upon their existing classroom practices.

In addition, the collaborative inquiry model used by intern teachers in this study was cyclical, requiring monthly reflection, some changes in thinking and, above all, purposeful action. Yet, in practice, many pre-service teachers struggle during practicum to protect time for research-related activities. Many report feeling bombarded by a litany of seemingly random and capricious demands during the school day. Providing sufficient time, and finding ways to embed that time into the workday, is a major challenge to successful collaborative inquiry; one that can be facilitated by limiting instructional time in order to learn and practice the activities of inquiry.

Furthermore, a collaborative inquiry model implemented during practicum demands a different mindset from that typically required of pre-service teachers. Sustaining work with a disposition of exploration rather than episodic task completion, collaborating with colleagues, and sharing failures as much as successes can be additional challenges in the

3 Although this finding was tangential to this study, other authors attend more directly to the qualities of effective mentors. See, for example, Bullough, Young, & Draper (2004) or Long, Hall, Conway, & Murphy (2012).
context of conventional schools. Done too quickly over a short practicum, collaborative inquiry may not evolve into actual improvement of interns’ teaching practice. This process requires explicit support from university supervisors and mentor teachers in the form of resources, active participation, and informal leadership. At the larger level of school operations, it also requires that formal school leaders provide intern teachers abbreviated workloads to ensure quality time and space for research and reflection.

Yet, when intern teachers in this study experienced authentic learning during their pre-service practicum, the way they approached professional growth and their identity as learners changed: they accepted responsibility for the quality of their teaching, increased their sense of efficacy, and fostered greater commitment to continued success. In this sense, the process of collaborative inquiry during teaching practica was professionally transformative, generating a positively reinforcing upward spiral of improved teaching and learning.

This finding has implications for the models of induction that are employed by schools and jurisdictions, as well as for teacher preparation programs looking to contribute to a more seamless transition from pre-service to beginning teacher; a task often overlooked or assumed to be most effectively undertaken solely through induction programs. Engagement in collaborative inquiry during practicum can contribute to a portrait of pre-service teachers who are immersed in bridging the theory-practice gap and who have developed the understanding that a career in teaching is defined, in a major way, by their commitment to continuous exploration and learning. They are more likely to begin their careers with high levels of knowledge, skills, and confidence, instilled in part by the care, attention, and direction provided by mentors. They are graduating as teachers with a sense of efficacy and success as reflective practitioners, collaborative learners, and early-career teacher researchers.

REFERENCES


**Biographical note:**

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