

Literature Review on Induction and Mentoring Related to Early Career Teacher Attrition and Retention

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Early career teacher attrition is a matter of economic, social, and educational concern in many countries. Usually induction programs, including mentoring, are seen to alleviate the problem of early career teacher attrition. Mentoring/induction programs as a solution to what is defined as the problem of early career teacher attrition and retention is the focus for this literature review to determine the current research base that supports such programs and initiatives. Concerns were raised that perhaps induction and mentoring had become the acceptable or taken-for-granted solution to the problem of early career teacher attrition and retention without sufficient attention to the research base. In this article, the literature is summarized, concerns are raised, and new research directions are highlighted.

Keywords: early career teachers, teacher attrition, sustaining teachers, teachers' lives

There is widespread agreement among policy-makers in Canada, Australia, New Zealand, the United States, and the United Kingdom that early career teacher attrition is of economic, social, and educational concern. In recent reviews such as one completed by Guarino, Santibañez, and Daley (2006), researchers highlighted concerns as well as differential patterns of attrition and retention across subject matters, age, gender, and race. We saw the reviews were largely focussed on individual or institutional/social framings of the problem of early career teacher attrition (Ingersoll, 2001; Macdonald, 1999). Usually induction programs, including mentoring, are seen to alleviate the problem of early career teacher attrition, and state, provincial,

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or district administrators mandate or strongly encourage such programs or initiatives. This focus on mentoring/induction programs as a solution to what is defined as the problem of early career teacher attrition and retention sets the focus for this literature review. Our interest was in finding the current research base that supports such programs and initiatives. We were concerned that, perhaps, induction, including mentoring, has become the acceptable or taken-for-granted solution to the problem of early career teacher attrition and retention without sufficient attention to the research base or to how the research problem was framed. In this systematic literature review, we summarized the literature, raised concerns and highlighted new research directions. We attended to how induction, including mentoring, for early career teachers is conceptualized with it sometimes focussed on retaining teachers, sometimes focussed on improving teacher quality, but rarely focussed on sustaining beginning teachers' lives as teachers.

Methods for the Review

Criteria

Our search terms were: *beginn** (beginner or beginners or beginning) OR *novice* OR *new* OR *early career* OR *newly qualified teacher** OR *NQT* AND *Teacher** AND OR *mentor** OR *socialization/socialisation* OR *intern**. We limited our search to articles that were: empirical studies (both qualitative and quantitative), written in English, in refereed publications, published from years 2000 – present, from Canada, the US, New Zealand, Australia, and the UK, that included material linked to teacher attrition or retention. The following databases were searched: Academic OneFile; Academic Search Complete; CBCA Complete; CBCA Education; CPI.Q. (Canadian Periodicals Index); Education Research Complete; Educational Administration Abstracts; Educational Research Abstracts; ERA: Education & Research Archive; Omnifile; Physical Education Index; Proquest Education Journals; Proquest Dissertations and Theses; Social Sciences Citation Index; Teacher Reference; U of A Theses and Dissertations; NEOS Libraries' catalogue.

Process

Abstracts of research studies found to match the criteria were transferred into an on-line database. Our research team then collectively reviewed the abstracts and culled the database, including only articles relevant to induction and mentoring with a focus on early career teacher attrition and retention. We did not include articles relevant to induction and mentoring without connection to early career teacher attrition or retention. We then divided the articles among our team. Each of us read, and then wrote, annotated bibliographical entries of each article, using the following categories:

theoretical framework, research problem, context and subject matter, methodology, and findings. We wrote 93 annotated bibliographical entries.

In a series of weekly team meetings, we topically sorted the annotated bibliographical entries. We began our summary with defining the terms mentoring and induction and then summarized the commonly used frames for purposes of induction. Following this, we organized the literature using six of the Wood and Stanulis (2009) criteria of quality induction programs. Together, we then identified any annotated entries related to each criterion. Each criterion is detailed on the following pages. We do not refer to all articles that are part of the annotated bibliography. Once we summarized the research, we problematized the research on induction and mentoring and outlined promising new directions for research.

Defining our Terms: The Language of Mentoring and Induction

Mentoring is such an important part of induction programs that the terms are often used synonymously (Ingersoll & Smith, 2004). We, too, found that the terms mentoring and induction were frequently used interchangeably throughout the literature.

Neilsen, Barry, and Addison (2006) discussed differences they perceive between induction and mentoring. They described induction as “a period when teachers have their first teaching experience and adjust to the roles and the responsibilities of teaching” (p.15). Induction programs vary in goals, levels of formality, structure, length, and planned activities. Mentoring may be one component of an induction program; in some cases, mentoring is considered the induction program. Mentors, usually experienced teachers, work with beginning teachers “to help ease the novices’ transition from university student to full-time time classroom teacher” (p. 15). There may be variance in the conceptualization of the term mentor among school districts (Neilsen et al., 2006) related to different purposes, intentions and/or goals for mentorship.

Frames for Purposes of Induction

There is a broad spectrum of literature¹ surrounding induction and, while some researchers have focused on criteria that make a *quality program* (Wood & Stanulis, 2009), others have focused on how implementing those criteria might support beginning teachers (Ingersoll & Smith, 2004). Some have sought to show how evaluation and assessment may help to create *quality teachers* (West, Rich, Shepherd, Recessor, & Hannafin, 2009; Yusko & Feiman-Nemser, 2008). Other researchers focused on how induction programs may help keep beginning teachers in the profession (Vierstraete, 2005). There is consensus on certain elements that are part of quality induction. Obvious contextual differences into which these induction programs

¹While we searched the research literature from several countries, most of the research was completed in the United States.

are implemented creates research questions around what *quality* induction might look like in different contexts.

Criteria for Quality Induction Programs

The Wood and Stanulis (2009) criteria of comprehensive quality induction served as our conceptual frame. Framing the review in this way allowed us to organize the literature to speak to the established criteria of *quality* induction. The criteria were as follows²:

- Educated mentors.
- Reflective inquiry and teaching processes.
- Systemic and structured observations.
- Formative teacher assessment.
- Administrators' involvement.
- School culture supports.

Educated Mentors

Most researchers have focused their induction studies on formal mentoring programs. Three studies (Beutel & Spooner-Lane, 2009; Carter & Francis, 2001; Hellsten, Prytula, Ebank, & Lai, 2009) included teachers involved in formal or informal mentoring. Hellsten et al. in Saskatchewan found that beginning teachers discussed issues of practice with multiple mentors (both formal and informal). Some researchers found forms of mentor training helped mentors support mentees in their success (Evertson & Smithey, 2000; Nielsen et al., 2006). Beutel and Spooner-Lane found mentor training caused mentors to reflect on their professional relationships and to develop empathy for the mentee, but did not facilitate the mentors' learning from the beginning teachers. In their study of 62 beginning teachers, Young and Cates (2010) noted having a mentor trained in empathic listening helped beginning teachers to manage tensions around teaching. Rikard and Banville (2010) noted having a trained mentor was not sufficient support for beginning teachers, as the majority of beginning teacher participants felt under-served or not served by their trained mentors.

Other researchers chose to examine cases of mentoring where the mentor was highly respected. Feiman-Nemser (2001) studied one exemplary mentor who viewed his role as a co-thinker rather than an expert. Piggot-Irvine, Aitken, Ritchie, Ferguson, and McGrath (2009) also studied highly regarded induction programs in New Zealand. Formal mentoring was part of each of these programs, though mentor training was not. The mentors stated they needed more support and development in their role as mentors.

²Some of the Wood and Stanulis criteria for quality induction are not used within our review and other criteria have been reworded to better represent our reading of the literature.

Researchers also examined the ways that mentors and mentees are matched. In their study of 220 beginning teachers and 245 supervisors, Carter and Francis (2001) observed that the mentoring relationships were more effective if the choice of mentor and mentee was up to the participants, as distinct from being assigned to a mentor-mentee relationship. Brown (2001) noted the choice of mentor was important to mentees who felt frustrated in their relationship with an assigned mentor. The beginning teachers in this study said that good mentors were available, reliable, and saw mentorship as a priority. Piggot-Irvine et al. (2009) found making a good match was an important aspect of the respected mentoring programs they studied. In matching, administrators considered teaching areas, personalities, mentor experience, teaching context, proximity, and (in some cases) the wishes of the beginning teacher. Similarly, Whitaker (2000a) recognized that mentor matching (grade level, type of students, proximity) was important to beginning teachers' perceptions of the effectiveness of mentorship. In his study of 156 first year special educators, there was a statistically significant relationship between perceived mentorship effectiveness and beginning teachers' plans to stay in the profession. Parker, Ndoye, and Imig (2009) saw a link between the mentor match by grade level and beginning teachers' intentions to stay in the profession. Of the elements of mentor matching they examined (proximity, content area, and grade level), only grade level was statistically significant in terms of intentions to remain in teaching. In another study (Iriniga-Bistolos, Schalock, Marvin, & Beck, 2007), beginning special education teachers in rural schools reported their needs were met at higher levels when their mentor was in the same building rather than in another place.

Considering the interactions between mentors and mentees is another area of research related to early career teacher attrition and retention. Schwille (2008) identified 10 distinct patterns of mentoring that were integrated into professional practice. In their study of action research cycles in mentoring, Athanases et al. (2008) pointed to the importance of mentors being responsive to the needs of the people and the context. Whitaker (2000) found beginning teachers needed a wide range of support from mentors, including emotional and instructional support. Preliminary findings show a wide range of support from mentors may help with retention of beginning teachers. In a study of a formal induction program in the Midwest US, Nielsen et al. (2006) found beginning teachers valued the emotional and instructional support of their mentors (who were trained and were provided time and compensation for mentoring). Street (2004) identified social relationships with mentors as particularly important to new teachers. As these researchers underline, it is important to consider the instructional, emotional, social, and psychological support available to beginning teachers.

In one study, Margolis (2008) examined the benefits of mentorship for the mentors. Margolis invited seven early career teachers (four–six years of experience) to be mentors. Most of the early career teachers saw mentorship

as being both regenerative (helping to inspire their learning and teaching) and generative (giving back to the profession).

One difficulty around mentorship mentioned in several articles was time. Both mentors and mentees felt limited and frustrated by the lack of time for meeting, discussion, and relationship development (Beutel & Spooner-Lane, 2009; Piggot-Irvine et al., 2009). Another difficulty was tension over mentors also being supervisors (Marable & Raimondi, 2007).

Reflective Inquiry and Teaching Processes

The ways in which reflective inquiry is supported, modeled, and undertaken vary greatly. However, at the heart of reflection, teachers are learning from, and within, teaching. Reflection was an integral focus in Molner's (2004) longitudinal study of beginning teachers. He found new teachers had a heightened sense of themselves as teachers and their colleagues observed high levels of professional growth as a result of reflection and working in collaborative teams.

A sense of the self in relation to the school context was also important in an Australian study of 20 beginning teachers. McCormack, Gore, and Thomas (2006) examined five tasks central to teaching. Two tasks proved challenging to novice teachers: learning the context (students, curriculum, school community) and developing a professional identity. This points to the importance of context as a shaping influence on beginning teachers' practice and the on-going nature of identity formation. Similarly, Cook (2009) worked with 10 beginning English teachers in the Northeastern US. Reflective practice played a role in the new teachers' development of hope and in viewing possibilities for their teacher identities.

In two studies researchers examined the use of electronic media to promote reflective inquiry. West et al. (2009) studied how the use of video analysis of beginning teachers' practice influenced recognition of teaching attributes and reflection on practice. Participants had difficulty identifying their own teaching attributes and placing these attributes on the given continuum. The usefulness of the videos was limited. Leiberman and Pointer-Mace (2010) worked with teachers who created multimedia representations of their practice around essential "events" of teaching, such as establishing classroom routines. They pointed to the usefulness of these representations for revealing the complexities of teaching. Leiberman and Pointer-Mace supported the teachers' creation of their own representations of practice, while West et al. asked participants to use a continuum that was unfamiliar to the teachers.

Systemic and Structured Observations

Formal observation is an element of many induction programs. Usually, a mentor or administrator observes a beginning teacher and provides feedback with regard to the focus of the observation (standards, criteria from professional organizations, standards for certain academic areas, etc.). Sometimes, the beginning teacher observes a more experienced teacher. Roehrig,

Bonn, Turner, and Pressley (2008) examined two groups of beginning teachers. All beginning teachers had school-provided mentors and participated in a state-run induction program. One group also received additional mentoring, which included mentee observation, mentor observation, and discussion about observations. In terms of effective teaching practices, there were no consistent differences between the groups of beginning teachers.

Yusko and Feiman-Nemser (2008) studied two well-regarded induction programs in which observation was used to provide assistance and assessment. Though assistance and assessment are often separated in induction programs, these researchers found that the two purposes could coexist, though it made the mentor–mentee relationship more difficult. It should be noted that only the mentors were consulted; beginning teachers' perceptions were not included. Though there is little research focused on systemic and structured observations, these two studies provoke questions around the common assumption in mentoring and induction programs that observation is always valuable.

Formative Teacher Assessment

While there was a link between research on induction and mentoring and formative teacher assessment, there was little research on the topic. Carver and Katz (2004) explored the professional responsibility of mentor teachers when beginning teachers' practices were only borderline acceptable. Based on the results of their study, part of a national New Teacher Induction study by Feiman-Nemser, they recommended mentor teachers take a direct role in helping novice teachers reach acceptable levels of performance. Yusko and Feiman-Nemser (2008) noted a growing recognition that assessment is integral to promoting and gauging teacher quality. In their view this has led to an increased interest in studying the effects of melding support and formative assessment. Their research, case studies of two well regarded US induction programs that combined assessment and assistance, explored whether support and assessment can co-exist within an induction program. They found four features were central to melding induction and assessment: programs are goal driven and learning oriented; evidence-based analysis of teaching and learning is employed; mentors are respected; and accountability is part of the induction program. There was no beginning teacher input into the study.

West et al. (2009) suggested video recordings of beginning teachers' practices could be used to provide starting points for reflective formative assessments as part of induction programs. Beginning teachers were asked to use the Teacher Success Model as a rubric for analyzing their videotaped practices on two occasions. The study reported limited results noting beginning teachers found it difficult to use the rubric and videos only captured a small part of the experience of beginning teachers.

Based on limited research, there appears to be a need for more exploration of the links between formative teacher assessment and induction programs. No links were made to beginning teacher attrition or retention.

Administrators' Involvement

There is limited literature that includes direct links to the role of the principal with the retention of teachers. Even less research exists on the effect of administrators, including superintendents, at the district, provincial, or state level. Some researchers have examined the development of policy and the provision of funds for ensuring implementation of induction programs. Brock and Chaitlin (2008) suggested superintendents were generally satisfied with induction programs but also recognized that improvements could be made to such programs. However, they identified a number of roadblocks to improving the programs including time, financial restraints, the large number of educational priorities for which they were responsible, as well as issues of distance in geographically larger jurisdictions. Based on their review of the literature, they concluded it was the principal who "plays a central role in the effectiveness and success of an induction program" (Brock & Chaitlin, p. 383). It is commonly thought that "the success of beginning teachers is critical to student success and the success of both is largely the responsibility of the principal" (Tillman, 2005 p. 613). In this section, we use sub headings because the scope of literature attentive to the role of principals and mentorship/induction is varied and includes: school culture, instructional leadership, support for new teachers, mentor selection, and flexibility to meet school needs.

Principals and school culture. The stated goals for new teacher induction programs (Brock & Chaitlin, 2008; McCormack & Thomas, 2003) are: a) improving quality of new teacher performance, b) improving student achievement, and c) improving retention of beginning teachers. The success of new teachers seems to be related to the school culture in which their first experiences as beginning teachers take place. In this, the principal plays a pivotal role. "School leadership as the fulcrum for organizational climate and socialization sets the tone for the beginner's first experience... largely through the assistance and monitoring of the principal" (Angelle, 2006, p. 319). In schools where there is a climate that sets high expectations for student learning combined with the belief that all students can learn, beginning teachers expressed loyalty to, and the intention to stay, in a particular school because the mission, vision and values of the school culture matched their own (Angelle, 2006). The satisfaction levels for induction programs expressed by beginning teachers demonstrated that strong leadership from the principal, a whole school approach to learning and teaching with clear goals and expectations, small class sizes, and the opportunity for professional growth were among the factors that contributed positively to this sense of satisfaction (McCormack & Thomas, 2003). In schools where col-

laboration and teamwork were part of the overall school culture, beginning teachers felt valued, felt they had a place in the school learning community even though they had a great deal to learn, were proud of their contributions and wanted to share them with the principal (Angelle, 2006).

Principals as instructional leaders. Principals as instructional leaders are in a position to initiate conversations with beginning teachers, observe instruction, provide feedback, monitor progress, and facilitate the transition between teacher education programs and the realities of classroom teaching. Principals have the opportunity to nurture and encourage the development of beginning teacher identity from a position of personal strength rather than a deficit model which focuses on the gaps in new teacher knowledge and performance (Vierstraete, 2005). Vierstraete (2005) suggested fostering of reflective practice within a mentoring relationship that includes the principal, the mentor and the new teacher is important to the ongoing professional learning of the new teacher within the school community. Conversely, in schools with weak or ineffectual instructional leadership practices, the socialization process contributed to feelings of frustration and tension for the beginning teacher. Weak instructional leadership was also shown to shape ineffective practices as part of the socialization process (Tillman, 2005; White & Mason, 2006).

Principal support for new teachers. First year teachers, who were in schools where the socialization by, and interactions with, the principal focused on student learning, teaching practice and fostering relationships, encountered fewer problems. More problems were encountered by first year teachers in schools where socialization focused on administrative elements, school routines and requirements (Tillman, 2005). The beginning teachers in these schools felt that they were expected to figure it out for themselves rather than working within a team approach. A correlation was found between the number of problems encountered by new teachers and their decision to stay in the profession (Angelle, 2006). The higher the number of problems, the more likely the new teachers were to leave. Some of the problems were: lack of feedback from the instructional leader, behavior of students, isolation, ineffective mentors, lack of support, few resources, large classes, and little or no time to interact, plan or create relationships with colleagues (White & Mason, 2006).

While school, district, or state/provincial policies mandate certain supports to be provided to beginning teachers, Andrews, Gilbert, and Martin (2006) noted the most valuable supports, as identified by beginning teachers, were often not offered. Andrews et al. also showed that although principals felt they were providing these supports, beginning teachers did not perceive the supports as being provided. Thus, there was a discrepancy between beginning teachers' perceptions of support and the principals' perceptions of support.

Principals and mentor selection. The selection of mentors (Vierstraete, 2005) is often part of the principal's role. A principal who is involved and can blend the needs of beginning teachers with the specific needs of the school creates a more supportive environment for beginning teachers. Choosing mentors who can develop strong relationships, who teach similar students and subject matter, and who share a common goal of student success are factors to overcoming the barriers for improving the induction process for all stakeholders (Ingwolson & Thompson, 2007; White & Mason, 2006).

Principals' flexibility to meet school needs. Types of schools and school communities vary widely and researchers have indicated a need for flexibility rather than a directive approach for induction programs. In this way, effective transition, assistance, monitoring, mentoring and learning can be responsive to the needs of new teachers, mentors, students and the school learning community (McCormack & Thomas, 2003). A principal who commits to developing teacher competencies, professional growth and engaging in conversations, observations, and assessment through a shared goal for student learning creates a school culture in which all teachers, including beginning teachers, can be successful (Tillman, 2005). Training for principals becomes an integrated part of the framework for induction programs so that an understanding of the principal's role, school culture and the importance of induction be developed (Brock & Chaitlin, 2008; McCormack & Thomas, 2003; Tillman, 2005).

School Culture Supports

In most of the literature involving teacher attrition, mentorship, and induction, researchers attend to school culture or supports available in schools in some way. However, researchers have not give direct attention to the complexities of creating and maintaining supportive school culture or to the school culture's importance in relation to the retention of new teachers. Ingersoll and Smith (2004) considered elements such as the people involved, the role of physical space, the teacher intentions shaped by the school culture, and the milieu. In this section, we examine each of Ingersoll and Smith's elements in relation to the literature.

It is important to acknowledge the myriad ways people impact the school culture. Some of these ways were discussed in the sections pertaining to Educated Mentors and Administrators' Involvement. Groups and stakeholders important (Wilkens & Clift, 2006) in the development of the school culture are superintendents (Brock & Chatlain, 2008), administrators, peer teachers, veteran teachers, and others. Some researchers focused on one sub-group of stakeholders and their impacts (Bickmore, Bickmore, & Hart; 2005; Wood & Stanulis, 2009). In their studies they examined the impact of administrators' involvement in induction. The different level of interest of stakeholder groups

determines the success of the induction program. Success is also shaped by whether a program is in a veteran-oriented, novice-oriented or integrated culture (Johnson & Birkeland, 2003).

We found only one study that showed the importance of the physical space as part of the school culture (Blankenship & Colem, 2009). In this study the researchers explored the experiences of two Physical Education teachers in two geographical contexts, urban and rural. Blankenship and Colem acknowledged that proximity to others shapes the school culture and the physical layout can influence a new teacher's role and socialization in the culture.

Johnson and Birkeland (2003) examined the types of cultures that can be created in schools, and how they might shape beginning teachers' decisions to stay in the profession or leave. They described three types of professional cultures: veteran-oriented (focused on the teachers who have been teaching for a long time), novice-oriented (focused on the teachers who are new to the profession), and integrated (engaging all teachers in collaboration). New teachers involved in the integrated culture were more satisfied with their jobs, were more likely to stay in the school system, and were more likely to stay at the same school. Wilkens and Clift (2006) also examined the impact of collaboration, part of an integrated model of professional culture. Veteran, novice, or integrated teaching cultures can influence both who benefits from induction and the success of the program (Piggot-Irvine et al., 2009).

Factors that affect the milieu such as the importance of empathy, meeting outside the school to reflect on issues, being seen as a valuable member of the community (Beutel & Spooner-Lane, 2009), having a personal or religious connection (Brock & Chatlain, 2008; Chatlain & Noonan, 2005), having access to friends, family, and a wide variety of resources and personnel (Romano, 2008), were identified as contributing to the retention of beginning teachers.

Problematizing the Research on Induction and Mentoring Programs

In our literature review we found studies where the current work on induction programs, including mentoring, was questioned. There were concerns raised about whether the current research designs, conceptualizations and questions are ones that will move us forward in work with beginning teacher induction and mentoring.

Rikard and Banville (2010) in their US study of effective mentoring found significant concerns with mentoring as the main element of induction. They found 55% of first year physical education teachers were underserved or not served by assigned mentors. While they noted that training for mentors is important, it is not enough to ensure that first year teachers are receiving adequate support. There was no link to the success of induction and mentoring programs in alleviating beginning teacher attrition or retention but they highlighted the complexities of relying on mentoring pro-

grams, no matter how well trained the mentors are. White and Mason (2006), in a US study of beginning special education teachers, also highlighted problems with mentoring. They found that mentorship effectiveness was impacted by the proximity of the mentor, whether the mentor taught the same “types” of students or the same grade level and whether there was administrative assistance. Kensington-Miller (2005), in New Zealand, reported concerns with seeing mentoring as either/or, putting forth an argument for seeing mentorship as on a continuum. A continuum of the possible mentoring relationships allows for a more fine-grained way of understanding the mentor-mentee relationships. The continuum would range from a judgmental stance, implying hierarchical positioning, to a developmental stance where there would be time for the relationship and work of the mentors and mentees to develop. There was no link to whether or not the mentoring impacted beginning teacher attrition.

Hobson’s (2010) work in England also focused on the mentoring relationships but from the perspective of the beginning teachers particularly in an increasingly bureaucratic context for teaching. From the intensive study of beginning teachers’ experiences of induction, the study highlighted that beginning teachers associated support mainly with people. The beginning teachers saw instructional support as more related to their professional development rather than as support. Hobson drew attention to the importance of providing emotional and psychological support to beginning teachers. No link to beginning teacher attrition was made, but the importance of relational support to beginning teachers, the importance of hearing what the beginning teachers experienced as well as what policy-makers, mentors and administrators note about induction programs was highlighted. In the United States, Kardos and Johnson (2010) asked beginning teachers about their experiences of mentoring. They highlighted beginning teachers’ experiences of the lack of same grade level or subject matter match with their mentors and the lack of conversation with, and observations by, their mentors. These negative experiences were more prevalent in lower income schools.

Manuel (2003) studied six teachers as they moved into teaching in Australia over five years. They explored the transitions and paid particular attention to the lives of teachers as they moved out of teaching, a transition referred to as an *exit gateway*. Ling (2009) offered a conceptual framework with new directions for the teaching profession through induction processes. Ling suggested induction programs are a site for re-imagining growth and change in the teaching profession.

Our reading of current research into induction programs (including mentoring) raises a number of questions about the programs that range from more technical concerns about the most efficacious matches and conditions to questions about whether it is possible to structure or mandate induction programs that will solve the problem of beginning teacher attrition or retention. As we read the literature, we wondered if the most effective induction

programs would involve engaging beginning teachers in collaborative, integrated cultures in schools that valued beginning teacher knowledge, that included them in the school programs and cultures as full members of the school community with attention to their stories of who they wanted to be and become as teachers. Perhaps there was a need for a reconceptualization that was more than a tinkering with the technical elements of induction and mentoring programs.

New Directions for Research in Mentoring and Induction Programs

Induction programs including mentoring for the purpose of teaching beginning teachers “the ropes”, that is, structures and procedures needed for assuming the role of teacher, may be shifting in purpose and direction. In recent literature we found a move away from a narrow, technical, and fixed goal-oriented framework of inducting beginning teachers towards conceptualizing the development of becoming a new teacher as a process.

Connelly and Clandinin (1999) conceptualized this identity process as “stories to live by”. The process attends to both the personal context of teachers and the cultural contexts of schools with attention to a time span. The need to shape relational places on school landscapes that allow beginning teachers’ spaces to reconfigure their ongoing identities as teachers is critical. Researchers have recently begun to address aspects of mentorship that relate to becoming a teacher as a process and have undertaken autobiographical and biographical research, identity research, and research into continuity of experience.

Autobiographical and Biographical Research

Thinking of beginning teachers as the vehicle for their own professional growth rather than as objects of induction programs (Cherubini, 2007) leads to new ways of considering what induction, including mentoring, could mean. Rathwell (2005), in his study of beginning teachers in rural Alberta, drew attention to the significance of exploring beginning teachers’ biographies to assess their likelihood of forming successful relationships with diverse mentors (principal, formal and informal teacher mentors and other beginning teachers), which are ongoing and which are voluntary for the purpose of successful induction. Jewell (2007) explored the biographies of experienced teachers in her study to find that mentor relationships could provide ongoing spaces for conversation and reflection allowing mentee teachers to make sense of their particular situations, helping to create coherence in their ever-evolving “stories to live by”.

Identity Research

Rippon and Martin (2006) examined the processes whereby beginning teachers negotiate their identities as teachers within school cultures. Their study empha-

sized the emotional need for beginning teachers to belong and to be seen as a “teacher” by colleagues was *as important* as professional development. Barriers to “fitting in” were seen in school cultures that were individualistic, where beginning teachers were labeled as probationers, and where beginning teachers were excluded from future-directed professional work in the school.

Smethen (2007) investigated beginning teachers’ intentions regarding choosing teaching as a career at a time of increasing accountability. She suggests a typology of teachers: the career teacher, the classroom teacher and the portfolio teacher (a temporary job). Teachers were more likely to teach with commitment when they were able to incorporate their beliefs about making a difference in children’s lives and when they were supported in this. Smethen directs teacher educators and the teaching profession to create school spaces for constructing a resilient teacher identity rather than directing schools toward the doctrine of “what works”.

Leiberman and Pointer-Mace (2010) worked from the view that professional development derived from teachers’ practices is central to what teaching means for pre-service and professional teachers. Through the process of creating multimedia representations of teaching, teachers articulated the complexities of what they know in context, significantly enhancing teacher voice and professional identity. There is a caution as researchers develop insights on what mentoring is and could be in relation to shaping possible beginning teachers’ identities. Devos (2010) is concerned that mentoring for beginning teachers can be framed to support specific and standardized identities based on “outside” conceptions of good teaching.

Research into Continuity of Experience

As attention shifts from specific mentoring and induction programs to collegial support and developing a teaching identity and socialization into the profession (Feiman-Nemser, 2001; Flores & Day 2006), the issue of continuity of experience for beginning teachers gains significance. Continuity of experience for beginning teachers often addresses the relationship between teacher education institutions and schools. Lovett and Davey (2009) found that for subject specialist beginning teachers being familiar with curriculum through their teaching assignments as well as quality of support determined their socialization as effective teachers. They concluded continuity between teacher education institutions and schools is essential. Carr and Evans (2006) provoked us further to consider the collaborative possibilities between schools, university programs and school administrators in order to create sustained support and ensure beginning teachers remain in the profession. Beginning “teacher scholars” worked with prepared mentor “link teachers” from the schools and with university faculty members. Working over seven years *with* schools, the advanced teacher preparation program was given the necessary time and resources to enable beginning teachers to

complete a master's program, to enhance their ongoing professional development and leadership in the schools and to ensure a high percentage of these same teachers remained in schools. Costigan (2004) sought to understand the personal experiences of new teaching fellows (NYCTF program) as their understanding of themselves as teachers evolved over two years. The gap between initial ideals and the realities of teaching were made visible. Course work grafted onto their personal developing narratives as informed by daily hands-on practice was found to be beneficial.

Main (2009) considered continuity of experience in another way. She linked the success of mentoring programs in selected Aotearoa New Zealand schools with the incorporation of principles of Maori culture emphasizing spiritual, mental/emotional, social and physical wellness for balanced development. Main's research helps us consider the necessity of beginning teachers recognizing and connecting to aspects of the cultures embodied in their experiences at school to more easily re-frame their continuing identity development.

Fox and Wilson (2009) considered the relational nature of support networks for beginning secondary science teachers and found that support from peers across the school were of most value as well as having beginning teachers involved in pedagogical discourse beyond departmental boundaries. These researchers emphasized the importance of support that is wide-ranging and lasting beyond the initial year. Offering beginning teachers expansive and diverse possibilities for connecting to their own evolving stories to live by in supportive relationships is key to continuing identity formation and sustaining teachers.

Discussion

Our criteria for researching the literature on induction and mentoring included empirical studies only (both qualitative and quantitative), studies from the year 2000 and studies from Canada, the United States, Australia, New Zealand and the United Kingdom. Much of the research on induction and mentoring stemmed from the United States. As a starting point to our discussion we further note that although mentoring is often equated with induction, it is only one facet of a comprehensive induction program. We found multiple differences in both induction and mentoring programs around issues such as who offers them, the length of time for which they are offered, whether they are government mandated, whether mentors receive further education for the role, how mentors and mentees are matched and so on. Induction programs including mentoring were seen to be diverse across schools, school districts, states, provinces and countries.

What we found most problematic was whether there is a link between induction programs including mentoring and teacher retention. The effect of induction (including mentoring) programs is unclear in the light of multiple factors that influence teachers' staying or leaving. Complexities in induction

(including mentoring) programs stem from differing ways they are conceptualized and the differing ways they are lived out. We are led to questions about whether it is possible to structure or mandate induction programs that will “solve the problem” of beginning teacher attrition. We found studies showing the quality of teaching may be impacted with induction (including mentoring) but links to retention were often not made or were tenuous.

Reading the research literature drew our attention repeatedly to the significance of the school culture and context in which beginning teachers work. School cultures which are highly collaborative, value all teachers’ knowledge including beginning teachers, which focus on what is most educative for students, and which see students as the responsibility of the whole school, appeared most successful in retaining beginning teachers. Principals were seen to have a pivotal role to play in the success of early career induction programs, setting a tone for collegiality amongst all staff. School cultures supportive of an integrated approach rather than those oriented toward supporting veteran teachers or those oriented around supporting beginning teachers were most successful in retaining beginning teachers.

Several lines of recent research have focused on the lives of beginning teachers themselves. There is interest in beginning teachers’ developing identities as teachers. Researchers have suggested it is vital that beginning teachers’ voices are heard in designing what would support them in their development as beginning teachers. When the problem of how to retain and mentor beginning teachers for their “role” in schools is reframed as a matter of sustaining beginning teachers to develop newly emerging identities as people who teach children, questions around the support that beginning teachers value, biographical questions around teaching intentions, and questions around continuity of experience as beginning teachers transition from educational institutions to school landscapes become critical.

Notes on Contributors

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