

An International Systematic Review of Research

UNDERSTANDING THE CONTEXTUAL FACTORS WITHIN TEACHER INDUCTION AND MENTORING PROGRAMS



**Final
Report**

February, 2016

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EXECUTIVE SUMMARY

Background

Beginning teachers are situated in a dynamic instructional landscape that both influences their development and practice, and dictates an expectation to prepare students to enter increasingly demanding further education and work destinations. Accordingly, teachers need to be able to respond to local, state, and national policies within widely different contextual milieu as they seek to achieve excellence in their practice. Consequently, the rationale for this systematic review originated from the desire to explore the challenges of implementing induction programs in widely different contexts, and identify how successful induction programs responded to these contextual challenges.

Aims

The aims of this systematic review were as follows:

- To create an international geographic mapping of empirical research detailing the varied and diverse contextual challenges faced by beginning teachers
- To create a representation of the formal programmatic responses of support provided to beginning teachers
- To synthesize the known evidence for the effects of the roles of mentors or induction programs for beginning teachers on their professional practice, with attention to attrition and retention rates
- To inform policy makers and educational leaders on the role of school administrators in supporting beginning teachers

Review Questions

The review questions were as follows:

1. Which nations and regions are represented in research literature that details formal or programmatic support of beginning teachers in their first five years of teaching?
2. What international research evidence is there to describe various contextual factors that affect experiences of beginning teachers?
3. How do teacher induction and mentorship programs respond to the various contextual factors affecting beginning teachers? and,
4. What is the role of school administration in supporting beginning teachers?

Method

This systematic review was undertaken using the EPPI-Reviewer software (EPPI Centre, Institute of Education, London) to analyze and interrogate reports. Our research group initially defined the terms of reference, and identified the critical focus of the review based upon the research questions. The search strategy for the review involved rigorous electronic and hand searching of key electronic databases and relevant journals, for which titles and abstracts were screened for relevance to the research questions, as defined by our inclusion criteria. Databases searched included ERIC, Academic Search Complete, ProQuest, and Education Source. Citations uncovered by the search strategies were stored

on appropriate document referencing software, and titles and abstracts were screened against the criteria. Full texts of those that appeared to meet the inclusion criteria were obtained for further screening. All items that satisfied the final stage of screening were then key-worded and included in the systematic map.

Our initial electronic database searches revealed 16479 sources, and hand searching the journals uncovered further 24 entries for potential inclusion. Duplications of electronic searches were removed which reduced the total number of entries to 6538. Our second step was to screen titles and abstracts of the citations found by electronic means against the following inclusion criteria; to have been published between 2004-2014, to have relevance to the research questions, to include empirical data, were set in early years, primary, secondary or compulsory education (K-12), and the study to be in English. A total of 4768 were excluded: 1696 for not being focussed on the study context; 2775 not focussed on our research questions, 315 were not empirical research; 44 not in English; and, 29 for being outside our date parameter. Following further exclusions of reports that proved to be unobtainable (N=11), the full texts of 734 studies were further screened against the inclusion criteria.

Our third step was to undertake full article screening of the 734 articles in our sample. The research group applied the same exclusion criteria as the first screening, this time to the full-text articles that were not excluded from the first screening (n=734). Of these, 113 were selected for inclusion in our systematic map. For the full in-depth review, only those studies key-worded as focusing on social, cultural, political, and organizational contexts, with a population focus of compulsory education in the K-12 sector (students aged four to twelve), and featuring new and beginning teacher induction and mentorship programs, were included. The geographic location of the included studies contexts was also noted.

Findings

The geographic representation of the articles featured in our review was taken from the *location* of the studies were conducted.

- The largest number of studies being conducted in the United States, a total of 64 out of 113 articles.
- Articles were also found in the United Kingdom (15), Canada (12), Europe (8), Australia and New Zealand (6), the Middle East (6), combined nations (more than one nation examined in one study) (2), and the Far East (1).
- In addition to highlighting the geographic regions we also identified the locales within the regions where studies were conducted, these will be included in our presentation.

In total, six significant overarching themes emerged from the studies examined in our review: social, political, cultural, personal/individual, organizational, and administrative contextual factors. From each of these six overarching themes, a number of sub-categories were established.

- *Social* contextual factors included the interpersonal interactions, social institutions, and people's behaviour and relations within broader society, communities of

people, or other social structures. From the total of 113 articles examined, 42 sources contributed in various degrees to this theme.

- *Political* contextual factors consisted of an aggregate of policymaking aspects in various civil, national, and public environments that were relevant to action. This broad definition included such organizing aspects as structure, order, and behaviour at the government and local levels, the power distribution of power, the range and interests of involved organizations, and the formal and informal rules that govern the interactions among different stakeholders. From the total of 113 articles examined, over 50 sources contributed in various degrees to these themes.
- *Cultural* contextual factors was defined in a broader sense as referring to the eclectic environment wherein humans learn to organize their thoughts, emotions, and behaviors based on shared norms, beliefs, values, customs, and traditions that are common to a group of people. Culture is a way of life that is defined by race, gender, ethnicity, age, and other broad geographical and demographical contributing factors. Cultural contexts can also be constrained to institutional and organizational frameworks within which individuals' social interactions occur. From the total of 113 articles examined, 65 sources contributed in various degrees to this theme.
- *Personal and individual* contextual factors were defined as referring to the set of current factors that matters and was unique to an individual based on his/her circumstances, interests, characteristics, and experiences. Three overarching themes were seen within personal and individual aspects of induction and mentoring programs, *sense of personal efficacy (for beginning teacher)*, *background prior to teaching*, and *personal initiative*. From the total of 113 articles examined, 65 sources contributed in various degrees to this theme.
- *Organizational* contextual factors were defined as the dimensions represented in and shaped by the structure, size, functions, and nature of organization within which a group of people works together to achieve specific goals. Organizational context was also an "operating environment" determined by the internal characteristics of the organization and external orientations of the organization. In total, 102 sources contributed to the topic of organizational contextual factors.
- *Administrative* contextual factors category comprised of the sub-categories of: (a) duties and responsibilities for beginning teacher support; (b) types and formats of support; (c) impact and outcomes of school administrators' involvement; and, (d) leadership and commitment. Over 40 sources contributed in varying degrees to this theme.
- We found many common factors involved in the successful induction of beginning teachers that are of interest and applicability to policy makers internationally. For example, interpersonal interactions, social institutions, and people's behaviour and relations within broader society, communities of people, or other social structures.

Conclusions

To summarize and present a visualization of our systematic reviews findings and implications, we adapted Bronfenbrenner's (1994) ecological systems theory to create a

heuristic visualization of the complex and multi layered contextual factors that influence and impact upon mentorship and induction programing for beginning teachers. When employed in this framework, Bronfenbrenner’s ecological systems theory directs attention toward the interaction between the personal/individual, the social, political, and cultural, and the organizational contextual and environmental variances and nuances, and the potential sources of influence and impact upon induction and mentorship programing.

- Application of this heuristic allows for the planning, analysis, and evaluation of the entire policy cycle of formal programs of support for beginning teachers.
- In terms of practice, this heuristic is helpful for situating and assessing the existing or planned programs.
- The heuristic it may offer an assistive lens to principals and other administrators by identifying the areas where novice teachers’ needs are being or not being met by the programs.
- The heuristic may also provide school leaders with better understanding of the source and type of challenges faced by a beginning teacher.
- This review warrants continuing research into the multifaceted nature of organizational factors that that shape the roles, responsibilities of stakeholders’ participation in induction and mentoring programs.

The Strengths of the Systematic Review

Our systematic review highlighted a significant number of research studies that have been carried out on the effects of mentorship and induction on beginning and new teachers learning, performance, attrition, and retention. The results indicated that there are some commonalities involved in the successful induction and mentorship of beginning teachers in spite of their geographic variance. Our search identified relevant research published in English, whether or not it originated in non-English speaking countries, and the bibliographic information on these was extensive and included a variety of different nations. The results of this review confirmed that research on induction and mentorship of beginning teachers has been conducted for several decades, and that research 10 years of age can be still be of relevance to the current research agenda.

The Limitations of the Systematic Review

Our review was limited to searching for articles written in English, we therefore suspect that this excluded research conducted in a variety of other nations from being represented. The original inclusion criteria had to be modified, as there was a lack of valid, recent, and robust research on the effects of induction and mentorship that explicitly related to retention and attrition of beginning teachers. Our search strategies concentrated on terminology familiar to us as Canadian and European researchers. Therefore, we acknowledge that other nations might employ various other terms when discussing support for beginning teachers.

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Keywords:

beginning teachers; contextual factors; early-career teaching; teacher induction; mentorship; programs for new teachers; international systematic review; school administrator

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
TABLE OF CONTENTS	1
CHAPTER 1	6
INTRODUCTION	6
REVIEW QUESTIONS AND APPROACH	6
DEFINITION AND CONCEPTUAL ISSUES	7
Beginning Teacher.....	7
Teacher Attrition.....	7
Teacher Induction and Mentoring Programs.....	8
REFERENCES	10
CHAPTER 2	14
FRAMING OUR SYSTEMATIC REVIEW	14
Definition of Induction.....	16
Content and Process of Induction	17
Characteristics of “Quality” Teacher Induction Programs	17
Routes Into Teaching and Teacher Certification.....	18
New and Beginning Teacher Needs.....	18
Administrator Roles in Beginning Teachers’ Support	19
Culturally Specific Contexts	19
Dilemmas, Tensions, and Weaknesses.....	19
REFERENCES	20
CHAPTER 3	22
SYSTEMATIC REVIEW METHODOLOGY	22
Systematic Review Approach and Software Use	22
Identifying and Describing Studies.....	22
In-Depth Review	23
Identifying and Describing Studies: Quality-Assurance Results.....	24
Geographic Representation of Articles	25

Presentation of the Findings.....	25
REFERENCES.....	25
CHAPTER 4.....	26
SOCIAL CONTEXTUAL FACTORS.....	26
Peer Relationships.....	26
Professional peer support.....	26
Social peer support.....	27
Emotional peer support.....	27
Absence of peer support.....	28
External Community Relationships.....	29
Formal professional relationships.....	29
Non-formal professional relationships.....	29
Non-professional relationships.....	29
CHAPTER SUMMARY.....	30
REFERENCES.....	30
CHAPTER 5.....	34
POLITICAL CONTEXTUAL FACTORS.....	34
National or Federal Political Factors.....	34
Program in place to comply with state/government mandates.....	34
Programmatic elements that increase beginning teachers' awareness of federal/national policies and administrative duties.....	35
Need for emphasis on customized support for new teachers.....	35
State or Provincial Political Factors.....	35
North America.....	36
Asia and Oceania.....	36
District Level Political Factors.....	37
School Level Political Factors.....	38
Community Political Factors.....	39
CHAPTER SUMMARY.....	39
REFERENCES.....	39
CHAPTER 6.....	43
CULTURAL CONTEXTUAL FACTORS.....	43
Remaining in Teaching.....	43

Teaching Philosophies and Ethos	44
Socialization with Peers	45
Role of Mentors	46
Influence upon Career and Professional Development.....	46
Exposure to Diversity	47
School Demographics	48
CHAPTER SUMMARY	48
REFERENCES.....	49
CHAPTER 7	52
PERSONAL AND INDIVIDUAL CONTEXTUAL FACTORS.....	52
Professional Competence	52
Emotional Intelligence.....	53
Taking Initiative	55
Quality and Structure of Mentorship.....	55
Prior Skills and Experience.....	57
Professional Identity Formation	58
CHAPTER SUMMARY	59
REFERENCES.....	59
CHAPTER 8	63
ORGANIZATIONAL CONTEXTUAL FACTORS.....	63
Multiple Elements to Beginning Teacher Induction and Mentoring Programs.....	63
Mentoring as the Most Widely Discussed Program Element	64
Importance of Selecting Program Elements to Match New Teacher Needs	65
Beginning Teachers Feeling Supported as an Indicator of Success.....	66
CHAPTER SUMMARY	66
REFERENCES.....	66
CHAPTER 9	69
ADMINISTRATIVE CONTEXTUAL FACTORS.....	69
Duties and Responsibilities for Beginning Teacher Support.....	69
Types and Format of Support	71
Impact and Outcome	72
Provision of support	72
Lack of support	73

Leadership and Commitment	74
CHAPTER SUMMARY	75
REFERENCES.....	75
CHAPTER 10.....	79
DISCUSSION OF REVIEW FINDINGS.....	79
Research Question 1: Nations and Regions Detailing Programs of Support For Beginning Teachers.....	79
Research Question 2: Contextual Factors Affecting the Experiences of Beginning Teachers Evidenced through International Research	80
Social contextual factors.....	80
Political contextual factors.....	82
Cultural contextual factors.....	82
Personal and individual contextual factors	83
Research Question 3: Responses of Induction and Mentorship Programs to Contextual Factors Affecting Beginning Teachers	84
Research Question 4: The role of school administration in supporting beginning teachers	85
REFERENCES.....	87
CHAPTER 11	90
CONCLUSIONS AND IMPLICATIONS	90
The Strengths of the Systematic Review	90
The Limitations of the Systematic Review	90
A Heuristic Model of Contextual Factors that Impact the Beginning Teacher	90
Implications for Policy, Practice, and Further Research	92
REFERENCES.....	93
BIBLIOGRAPHY	94
APPENDIX A: INITIAL SEARCH RESULTS.....	106
APPENDIX B: RESULTS OF HAND SEARCH	109
APPENDIX C: CHART DETAILING FIRST SYSTEMATIC REVIEW-MAPPING.....	110
APPENDIX D: CHART DETAILING SECOND SYSTEMATIC REVIEW-MAPPING	111
APPENDIX E: DETAILED LIST OF GEOGRAPHIC REGIONS INCLUDED IN OUR REVIEW	112

CHAPTER 1

INTRODUCTION

Precisely because teachers' qualities and abilities are the most significant school-based factors contributing to student achievement and educational improvement (Cochran-Smith, 2006; Darling-Hammond, 2006; Rivkin, Hanushek, & Kain, 2005), much attention must be given to the development of novice teachers. Despite their initial enthusiasm, many beginning teachers abandon the profession, depressed and discouraged (Boreen, Johnson, Niday, & Potts, 2009). Unfortunately, the most talented beginning teachers are among those most apt to leave (Colb, 2001). Teacher attrition spans international boundaries: including the United Kingdom (Smithers & Robinson, 2003), Australia (Stoel & Thant, 2002), the United States (Darling-Hammond, 2001; Ingersoll & Smith, 2003; Smith & Ingersoll, 2004), and other countries (OECD, 2005). Indeed, despite beginning teachers' heavy financial and educational investments to further their teaching careers, the majority of teachers quit the profession in their first two to five years. In some extreme cases, teachers drop out even before the end of their first year (Black, 2001). Internationally, the argument is that the first three to four years after initial training are the most crucial for a teachers' decisions as to whether or not they will remain in the profession (Jones, 2003). A growing consensus acknowledges the value of some kind of support for beginning teachers (Feiman-Nemser, Schwille, Carver, & Yusko, 1999) to help mitigate these issues. Induction is understood as an overarching support mechanism (Serpell, 2000), with effective mentorship seen as one of the most crucial components to support individual beginning teachers needs (Doerger, 2003).

REVIEW QUESTIONS AND APPROACH

This report details our recent systematic review of international research literature on formal programs of support for beginning teachers. In particular, this review sought to establish the understanding of formal and programmatic support provided to beginning teachers through the following research questions:

1. Which nations and regions are represented in research literature that details formal or programmatic support of beginning teachers in their first five years of teaching?
2. What international research evidence is there to describe various contextual factors that affect experiences of beginning teachers?
3. How do teacher induction and mentorship programs respond to the various contextual factors affecting beginning teachers? and,
4. What is the role of school administration in supporting beginning teachers?

For the purposes of this review, contextual factors were understood as various societal (e.g., cultural, economic, social, and political), organizational, and personal forces that influence the professional practices of new and beginning teachers.

DEFINITION AND CONCEPTUAL ISSUES

In this section, we provide some operational definitions and conceptualizations of teacher attrition and beginning teacher induction and mentorship programming.

Beginning Teacher

A variety of terms are used interchangeably in research and professional literature to describe teachers who are at the beginning of their career: beginning teacher, novice teacher, new teacher, neophyte teacher, etc. Similarly, parameters and criteria for recognizing beginning teachers as such differ across various jurisdictional and professional contexts. In most instances, beginning teachers are considered to be newly certified, brand new to the profession, graduates from teacher education programs in higher education institutions who have never had their own classroom from the open to close of school. Additionally, certain employment criteria are applied; for example, beginning teachers are deemed those who have been hired into regular/permanent, occasional/itinerant, or long-term occasional/substitute, full-time or part-time positions by a school district/board/authority to begin teaching for the first time. Furthermore, the length of employment is often taken into account and varies from initial (i.e., in the first year) to continuing (i.e., first two, three, four, five years) periods of teaching experience. For the purposes of this review, beginning teacher is defined in a broader sense, denoting any educator who has completed a program of teacher education, holds a valid teaching certificate, and is within the first 5 years of employment in a school.

Teacher Attrition

The transition and socialization processes, as well as efforts focused on acculturation to school contexts and the profession, are commonly noted accompaniments to novices' beginning their teaching careers (Halford, 1998; Howe, 2006; Kauffman, Johnson, Kardos, Liu, & Peske, 2002). Indeed, teaching has long been seen as an occupation that "eats its young" and in which the beginning of new teachers' journey is similar to a "make or break," "sink or swim," "trial/baptism by fire," or "boot camp" experience. Some of the most significant challenges faced by beginning teachers include egg-crate structure of schools, isolation, reality shock, cultural adjustment, inadequate resources and support, lack of time for planning and interaction with colleagues, difficult work assignments, unclear and inadequate expectations, intergenerational gap, dealing with stress, lack of orientation and information about the school system, and institutional practices and policies that promote hazing (Andrews & Quinn, 2004; Anhorn, 2008; Darling-Hammond, 2003; Glickman, Gordon, & Ross-Gordon, 2004; Johnson & Kardos, 2002, 2005; Patterson, 2005). Attrition occurs when teachers who do not feel effective or do not receive adequate support in the first years leave schools and abandon teaching, in favour of other professions (Moir, Barlin, Gless, & Miles, 2009). Of course, complicating the attrition phenomenon are the situated conditions and workforce economies together with the individual factors and experiences of many beginning teachers who may be required to persist in temporary contract arrangements for a number of years before actually securing full time and regular teaching contracts.

Understanding the extent and nature of teacher attrition is often clouded by definitional and methodological problems (Macdonald, 1999). Ingersoll (2001) called attrition a "revolving door" – where large numbers of teachers depart their jobs for reasons other than retirement of veterans. In her seminal work, Macdonald (1999) discussed that teacher

attrition is frequently positioned as either a problem for work force planning and resources or an indicator of the relatively poor quality of school life and teacher morale. At the same time, she posited counter perspective views of teacher attrition as a necessity, highlighting that low levels of teacher attrition may lead to stagnation of the profession and schooling. Similarly, Ryan and Kokol (1988) viewed teacher attrition as a mixed blessing for schools: on the one hand, it meant more room for recently trained teachers; on the other hand, “the people who are most equipped to orient young teachers as mentors and provide day-to-day guidance [would] also be gone” (p. 59). While a certain level of attrition within the profession is both necessary and healthy (Ingersoll, 2001; Ryan & Kokol, 1988), the early-career loss of teachers is neither desirable nor sustainable (Plunkett & Dyson, 2011), as it is generally costly to schools and detrimental to student learning (Guarino, Santibañez, & Daley, 2006). Borman and Dowling (2008) noted that despite an increased research and policy rhetoric to explore the factors that may help retain a greater proportion of the existing teaching force, attrition and its associated costs to the system have not always been systematically addressed by formal policies and interventions.

Teacher Induction and Mentoring Programs

According to Breaux and Wong (2003), induction is a long-term process that helps new teachers acculturate to a school. Some specific definitions of induction refer to formal and highly structured professional development programs that begin before the first day of school and continue for two or more years, while other definitions view induction as a fairly informal socialization process that varies from school to school. As induction programs vary as to their purpose, the type of support beginning teachers receive in induction programs also varies widely (Davis & Higdon, 2008; Ingersoll & Smith, 2004). Prevalently, induction is viewed as a comprehensive, coherent, and sustained professional development process, organized by a specific jurisdiction to train, support, retain new teachers, and help them develop a lifelong learning program (Wong, 2004). Ultimately, new-teacher induction programs and their component parts are aimed at solving the teacher attrition dilemma (Anhorn, 2008).

A major component of many teacher induction programs is *mentoring* that matches experienced teachers with novices to help them survive and thrive in the beginning phase of a teaching career (Wong, 2004). Based on a process of “critical friend” (Costa & Kallick, 1993), mentorship involves facilitation of instructional improvement wherein an experienced educator (mentor) works with a novice or less experienced teacher (protégé) collaboratively and nonjudgmentally to study and deliberate on ways instruction in the classroom may be improved (Cumming-Potvin & MacCallum, 2010). Mentors support the development of their protégés, providing coaching, guidance, advocacy, counseling, help, protection, feedback, and information that they would otherwise not have. Ultimately, a primary goal of mentoring is personal learning of the protégé (Bennetts, 1995; Lankau & Scandura, 2002; Portner, 2008). In addition to professional benefits, mentoring has personal benefits for novice teachers, such as stronger self-confidence, reduced stress, and increased motivation and learning (Allen & Eby, 2007; Lacey, 2000).

Most of the time, one-on-one mentoring by experienced teachers effectively supports new teachers in their work (Ingersoll & Kralik, 2004); however, it often fails due to inappropriate matches, lack of mentors, or lack of mentor training (Johnson & Kardos, 2005). Therefore, the traditional one-on-one definition of mentoring has been

reconceptualised into a “multiple relationships” phenomenon, where a protégé has a network of mentors, each providing different functions (Baugh & Scandura, 1999; Higgins & Kram, 2001). For mentoring to be effective, it must be used in combination with the other components of the induction process (Johnson & The Project on the Next Generation of Teachers, 2004; Kardos, 2004; Smith & Ingersoll, 2004; Wong, 2004).

Researchers (Darling-Hammond, 2003; Huling-Austin, 1986, 1988; Huling-Austin & Murphy, 1987; Laitsch, 2005; Strong, 2005, 2006) have claimed that induction programs with effective mentoring in the early teaching years are capable of positively affecting beginning teacher retention and student achievement, and reducing the waste of resources and human potential associated with early-career attrition. Induction programs and high-quality mentoring programs have positive impacts through increased teacher effectiveness, higher satisfaction, commitment, improved classroom instruction and student achievement, and early-career retention of novice teachers (Glazerman et al., 2010; Guarino et al., 2006; Henry, Bastian, & Fortner, 2011; Ingersoll & Strong, 2011; Odell & Ferraro, 1992; Richardson, Glessner, & Tolson, 2010).

Induction programs that aim to provide instruction in classroom management and effective teaching techniques have been shown to reduce the difficulty of the transition into teaching and maximize the retention rate of highly qualified teachers (Anhorn, 2008; Wynn, Carboni, & Patall, 2007). Research shows that there are inconsistencies and problems inherent in any induction program (Barrett, Solomon, Singer, Portelli, & Mujuwamariya, 2009; Doerger, 2003). Variation in induction implementation and teacher experiences can be related to the unique structural, social and cultural factors, functional causes, and operationalization in schools (Cherubini, 2009; Jones, 2002).

Mentoring for neophyte teachers can be an effective support when used in conjunction with other components of the induction process (Smith & Ingersoll, 2004; Wong, 2004); however, failure to appropriately match mentor with mentee, unsuccessful new teacher/mentor dyads, lack of willing and/or able mentors, lack of mentor training, or individual factors (e.g., burnout, lack of professional respect) have resulted in failed efforts (Benson, 2008; Johnson & Kardos, 2005). New teachers become reflective thinkers and co-learners if mentoring conditions and understanding are based on principles of collaboration (Clandinin, Davies, Hogan, & Kennard, 1993; Kochan & Trimble, 2000).

Internationally, the problem of retention and attrition has been well documented. Previous systematic reviews have revealed how induction programs have impacted upon teacher expertise, professional development, job satisfaction, and retention rates (Totterdell, Bubb, Woodroffe, & Hanrahan, 2004) and the effects of mentors upon induction programs (Totterdell et al., 2008). Earlier reviews of research on teacher induction (Arends & Rigazio-DiGilio, 2000; Darling-Hammond, 1994; Gold, 1996; & Huling-Austin, 1990, 1992) concluded that initiatives were beneficial if carefully constructed and managed. However, on an international scale, little is understood of how multifaceted this problem of construction and management might be. Our review sought to establish new understandings about how beginning teachers are formally supported in their first five years of teaching in different nations and varying contexts. In addition, this work aimed to describe the complexities (e.g., cultural and political contexts) linked explicitly or implicitly with teacher retention and attrition, and how cultural and political contexts have been included in beginning teacher induction and mentorship programs.

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CHAPTER 2

FRAMING OUR SYSTEMATIC REVIEW

To situate and better understand the context of our systematic review, we examined previously undertaken reviews of the literature, and systematic reviews on teacher induction and mentoring. We sought to both describe what is known about supporting beginning and new teachers through induction and mentorship programs, and synthesize this body of knowledge. As Kane (2013) rightfully noted, despite the existence of multiple reviews, these reviews are far from being replications; instead they bring further clarity to a particular aspect of our understanding of the phenomenon and give direction to future required research. In total, we examined twelve literature reviews and one bibliographic entry that summarized and reviewed research on beginning teacher induction dated between 1999 and 2015, as well as two systematic reviews undertaken in 2004 and 2008 respectively. A numbered list of the literature and systematic reviews is included in table 1 and table 2.

Table 1. List of Literature Reviews

	Author	Date	Title	Geographic Scope	Publisher
1	Feiman-Nemser, Schwille, Carver, & Yusko	1999	A Conceptual Review of Literature on New Teacher Induction	United States	National Partnership for Excellence and Accountability in Teaching, Washington, DC
2	Serpell	2000	Beginning Teacher Induction: A review of the Literature	United States	American Association of Colleges for Teacher Education
3	Humphrey, Adelman, Esch, Reihl, Shields, & Tiffany	2000	Preparing and Supporting New Teachers: A Literature Review	United States	U.S. Department of Education, Planning and Evaluation Service
4	Doerger	2003	The Importance of Beginning Teacher Induction in Your School	United States	International Electronic Journal for Leadership in Learning
5	Whisnant, Elliott, & Pynchon	2005	A Review of Literature on Beginning Teacher Induction	United States	Centre for Strengthening the Teaching Profession
6	Borman & Dowling	2008	Teacher Attrition and Retention: A Meta-Analytic and Narrative Review of the Research	United States	Review of Educational Research
7	Wang, Odell, & Schwille	2008	Effects of Teacher Induction on Beginning Teachers' Teaching	United States, United Kingdom, and Chinese studies mentioned, however geographic location of some studies not included	Journal of Teacher Education

8	Ingersoll & Strong	2011	The Impact of Induction and Mentoring Programs for Beginning Teachers: A Critical Review of the Research	United States	Review of Educational Research
9	Clandinin, Schaefer, Long, Steeves, McKenzie-Robblee, Pinnegar, & Wnuk	2012	Early Career Teacher Attrition: Problems, Possibilities, Potentials	Canada, United States, Australia, Portugal, New Zealand,	Centre for Research for Teacher Education and Development, University of Alberta
10	Long, McKenzie-Robblee, Schaefer, Steeves, Wnuk, Pinnegar, & Clandinin	2012	Literature Review on Induction and Mentoring Related to Early Career Teacher Attrition and Retention	Canada, New Zealand, United States, Australia, England, however most of studies from United States	Mentoring & Tutoring: Partnership in Learning
11	Schaefer, Long, & Clandinin	2012	Questioning the Research on early Career Teacher Attrition and Retention	Primarily United States, but also includes Canada, England, Scotland, Portugal, Australia, New Zealand	Alberta Journal of Educational Research
12	Kane ¹	Last reviewed June 2015	Beginning Teacher Induction	United States, Europe, France, New Zealand, Switzerland, Shanghai, Japan, OECD nations, United Kingdom	Oxford Bibliographies
13	Hobson, Ashby, Malderez, & Tomlinson	2009	Mentoring beginning teachers: What we know and what we don't	United States, Canada, England, Wales, Hong Kong,	Teaching and Teacher Education

Table 2. List of Systematic Reviews

	Author	Date	Title	Geographic Scope	Publisher
14	Totterdell, Bubb, Woodroffe, & Hanrahan	2004	The Impact of Newly Qualified Teachers (NQT) Induction Programmes on the Enhancement of Teacher Expertise, Professional Development, Job Satisfaction or Retention Rates: A Systematic Review of Research Literature on Induction	United States, United Kingdom, Australia, New Zealand	EPPI Centre
15	Totterdell, Woodroffe, Bubb, Daly, Smart, & Arrowsmith	2008	What are the Effects of the Roles of Mentors or Inductors Using Induction Programmes for Newly Qualified Teachers (NQTs) on Their Professional Practice, with Special reference to Teacher Performance, professional Learning and Retention Rates?	United States and United Kingdom	EPPI Centre

¹ Bibliographic entry.

Each of the literature and systematic reviews were numbered, read, and inductively coded for overarching themes and issues related to induction and mentoring for beginning and new teachers. Once the themes were identified and agreed, the research team compared the themes across all articles to establish any commonalities and discrepancies with the most common being the categories *characteristics of “quality” induction programs* and *definition of induction*. The full list of our eight themes can be seen in the table 3 below, with the indications of which report’s findings contributed to that theme.

Table 3. Themes from Inductive Analysis of Previously Undertaken Literature and Systematic Reviews

Overarching themes	Found in which articles
Definition of induction	1, 2, 4, 5, 7, 9, 10, 11, 12, 13, 14, 15
Content and process of induction	1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 14, 15
Characteristics of “quality” teacher induction programs	1, 2, 3, 4, 5, 7, 7, 9, 10, 11, 13, 14, 15
Routes into teaching and teacher certification	3, 11, 13, 14
New and beginning teacher needs	5, 6, 9, 11
Administrator roles with beginning teachers	9, 10
Culturally specific contexts	4, 8, 9, 11, 12, 13
Dilemmas, tensions, and weaknesses	1, 4, 9, 10, 11, 12, 13, 14, 15

Definition of Induction

Foundationally, we first examined how induction had been defined in previous studies. From the 15 studies in our sample, 12 either discussed or provided a definition of induction as a support for new and beginning teachers. In synthesizing the definitions, we noticed many common words and phrases. First, we noticed that induction was often reported as being a process or a “specific stage or phase in teacher development” (Totterdell et al., 2008, p. 7). Second, we noticed that the process or stage of inducting new and beginning teachers was often described as being time-bound (Clandinin et al., 2012; Humphrey et al., 2000; Serpell, 2000). Third, induction was a period of transition from teacher education to becoming a qualified, practicing teacher (Feiman-Nemser, Schwille, Carver, & Yusko, 1999; Humphrey et al., 2000; Serpell, 2000). Fourth, when defining induction, some authors distinguished between the language of mentoring and induction. For example, induction programs vary in their structure and activities, length, and levels of formality, and they may include mentoring as a component. Additionally, mentoring can be considered *the* induction program (Clandinin et al., 2012; Hobson, Ashby, Malderez, & Tomlinson, 2009). To conclude, definitions investigated within our sample of literature and systematic reviews were somewhat varied, and seem to be determined by what was expressed theoretically, in addition to the definitions embedded in the goals or the components of induction programs featured within the reviews.

Content and Process of Induction

In the content and process of induction theme, 11 out of 15 studies described how articles included in their review featured some type of description and/or analysis of the programs content and process of induction. In some literature reviews, authors reported the content and process of induction from a theoretical perspective. For example, Serpell (2000) noted that conceptualization of induction related to teacher preparation had evolved because of the increased interest in the topic. However, Serpell explained however, that induction continued to be understood as a “helping mechanism” (p. 3) for beginning teachers; a mechanism that sought to socialize a teacher into school culture, improve their teaching skills, resolve any concerns, and ensure continuing professional development. Doerger (2003) posited that many teacher induction programs were combinations of goals for the teacher and positive experiences for students. Doerger detailed that goals included slower teacher attrition, screening out incompetent teachers, improving student achievement, attending to teacher isolation, and eliminating the brain drain of urban teachers to the suburbs. Whisnant, Elliott, and Pynchon (2005, p. 9) asserted that major studies and reports had created a “shared understanding” of how comprehensive and complete programs of new teacher support were yielding positive results.

More recent studies have moved toward a more pragmatic approach to describing induction, its typical content and processes. Long et al. (2012) noted that although mentoring was often equated with induction, it “was only one facet of a comprehensive induction program” (p. 21). Further, these same authors highlighted how multiple differences in programs could be determined by who offered the programs, whether they were government mandated or not, whether mentors received training or further education for the role of mentorship, and how mentors and mentees were matched. Hobson et al. (2009), in their review, focused on the mentoring of beginning teachers with an emphasis on the potential and ongoing professional development benefits for both mentee and mentor through their participation in training and in workshops.

In their literature review conducted in 2011, Ingersoll and Strong (2011) detailed programmatic content and process of induction. For example, when talking about the programs offered by the Educational Testing Service (ETS) or the New Teacher Centre (NTC), they highlighted inclusion of ongoing training and materials of the mentor, weekly meetings between mentor and mentee, monthly general professional development sessions, opportunities to observe veteran teachers, and continued evaluation of teaching practices. In the four literature reviews that did not contain explicit reference to content and processes of induction programs, one review acknowledged this to be a limitation. Wang, Odell, and Schville (2008, p. 138) indicated that the studies that they had examined in their review, “failed to clarify what kinds of induction components were included,” and subsequently, it was impossible for the authors to “judge the relative importance of the kinds of lesson observations and lesson-based discussions that influenced beginning teachers.”

Characteristics of “Quality” Teacher Induction Programs

Twelve of the literature reviews discussed and/or attempted to identify characteristics of *quality* teacher induction programs. Some reviews identified various components of the programs. For example, Doerger (2003) reported how the most effective teacher induction programs had several key components in common, including being a multi-year

and developmental process, supportive and understanding administration, provision of well-trained mentors, evaluations linked to state and districts standards, and provision of technology that facilitated effective communication. Wood and Stanulis (2009, as cited in Long et al., 2012) recognized the following essential components: educated mentors, reflective inquiry and teaching processes, systematic and structured observations, formative teacher assessment, administrators involvement, and school culture supports. Hobson et al. (2009) suggested a number of common findings were emerging from research regarding the factors that either positively or negatively impact the mentorship process, relating to contextual support for mentoring, mentor selection, mentoring strategies, and mentor preparation. In other reviews, authors discussed the importance of quality new teacher induction from a theoretical perspective (Ingersoll & Strong, 2011; Totterdell et al., 2008; Whisnant et al., 2005).

Routes Into Teaching and Teacher Certification

Though all of the studies acknowledged the importance of teacher education with regard to its influence upon teacher retention and attrition, and its relevance and connection to the induction stage of a new and beginning teachers' careers, two studies devoted particular attention to this theme. Humphrey et al. (2000) devoted a significant part of their literature review into discussing the impact of teacher education on the subsequent career of new and beginning teachers. In particular, they highlighted how existing research had suggested that a combination of rigorous licensing requirements, and other elements, positively affected teaching and learning. In addition, Humphrey et al., reported how raising the licensing requirements through extension of teacher education appeared to increase the confidence of new teachers and consequently, this seemed to increase the likelihood of these teachers entering the teaching profession. Similarly, Schaefer, Long, and Clandinin (2012) acknowledged that structures, philosophies, and practical applications of teacher education have been addressed frequently in literature focused on teacher attrition. However, Schaefer and colleagues summarized that studies (to that date) were focused on contextual factors influencing early career teacher attrition but were somewhat neglectful in their attention to the individual factors experienced by new teachers.

New and Beginning Teacher Needs

Four of the literature reviews considered new and beginning teacher needs. Clandinin et al. (2012) urged for increased focus on how to sustain new teachers in their teaching life-careers rather than upon merely retaining them in the profession. In their 2005 review, Whisnant et al. (2005) asserted that beginning teachers were greeted by diverse and evolving expectations and challenging conditions. The varied needs of new and beginning teachers, the dependency on their level of preparation and qualification, and the apparent benefit and enhancement of comprehensive programs of induction were well established in the literature (Borman & Dowling, 2008; Whisnant et al., 2005). Nevertheless, Schaefer et al. (2012) urged that there might be an increased understanding of the career/life span of teachers, through an emphasis on shifting the conversation toward narrative conceptualizations of teachers' identities and school contexts such as might shed light on the types of school landscapes that sustain and retain beginning teachers.

Administrator Roles in Beginning Teachers' Support

Twelve of the reviews acknowledged the relevance and importance of the administrator role. However, two reviews in particular included significant attention on the role of administration and school principals in supporting new and beginning teachers (Clandinin et al., 2012; Long et al., 2012). In these reviews, consideration was made of principals' impact upon school culture, principals' role as instructional leaders, principals' support of new teachers, their involvement in mentor selection, and the flexibility shown by principals in meeting school needs (Long et al., 2012). In their systematic review, Totterdell, Woodroffe, Bubba, and Hanrahan (2004) suggested that the high quality of induction support, the district policy and commitment to mentor assignment, working conditions, professional development for second-year teachers, and strong instructional leadership among principals had consequences for the retention levels in these districts involved in their study. In addition, induction programs appeared to align well with performance management in school. As reported in Totterdell et al. (2008), administrators and induction tutors saw the consistency between the two practices and expected future practical benefits. Nevertheless, as Long et al. (2012) concluded, there was limited empirical evidence directly linking the role of the principal with the retention of teachers. Furthermore, these authors noted that at the time of their study, even less research existed on the general effect of the role of administrators on beginning teachers, including superintendents, at the district, provincial, or state level.

Culturally Specific Contexts

Culturally specific contexts were considered through five of the literature reviews both in terms of their impact upon new and beginning teachers, and their respective impact upon induction and mentoring programs as a response. Long et al. (2012) noted that much of the literature involved teacher attrition, mentorship, and induction, and that investigators concentrated on school culture or on the overall support available in schools. However, direct attention to the complexities of creating and maintaining supportive school cultures and the relevance of the school culture's on the retention of new teachers was not considered. Long et al. (2012) also suggested that different types of culture impacted upon the milieu of a beginning teacher, which, in turn, affected teachers' decisions to stay or leave the teaching profession. Clandinin et al. (2012) reported how in a Canadian study of beginning teachers, Fantilli and McDougall (2009) found that support from experienced colleagues and having a principal who supported a collaborative school culture were found to mitigate some of the challenges faced by beginning teachers.

Dilemmas, Tensions, and Weaknesses

Many of the reviews (Clandinin et al., 2012; Doerger, 2003; Feiman-Nemser et al., 1999; Long et al., 2012; Schaefer et al., 2012; Totterdell et al., 2008; Totterdell et al., 2004) recognized that problems and tensions were inherent within implementing induction programs. For example, where assessment was a function of induction programs, Feiman-Nemser et al. (1999) noted that new teachers who were keen to make a good impression in their school, were more likely to be reluctant to share problems and less likely to ask for help if they were also being evaluated. Doerger (2003) argued that new teachers needed regular opportunities to share and solve problems with experienced teachers as well as other first-year teachers. However, mentor teachers were sometimes restricted in their experience of communicating with novice teachers about their practice, as they spent much of their time in their own classrooms, not with other teachers. Hobson et al. (2009)

reported that variance in mentoring provision had negative consequences for the learning of mentees, and for the schools and systems into which the beginning teachers were being inducted. They further highlighted three main failings, (1) some mentors failed to provide sufficient support for new and beginning teachers emotional and psychological well being, (2) some beginning teachers were not sufficiently challenged by their mentors, and (3) mentors often focused on the technical aspect of teaching and ignored pedagogical issues and reflection upon broader issues such as social justice. Other tensions were reported, such as the difference in consistency between induction programs within a particular district (Long et al., 2012), the impact of a “rogue school” that not only failed to implement induction properly but also exploited beginning teachers in some way (Totterdell et al., 2004), and issues related to the alignment of beginning teachers’ philosophies and the culture of their school (Doerger, 2003).

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CHAPTER 3

SYSTEMATIC REVIEW METHODOLOGY

Systematic Review Approach and Software Use

Using a systematic review approach (Gough, Oliver, & Thomas, 2012; Thomas & Harden, 2008), this systematic review employed the EPPI-Reviewer software (EPPI Centre, Institute of Education, London) to analyze and interrogate reports. The EPPI-Reviewer is a comprehensive online software program for managing systematic literature reviews and includes the capability of managing all stages of the process including bibliographic management, screening, coding, and included article synthesis. We opted to use this software program for its ability to allow multiple concurrent users to access the system and its web-based design that facilitated our research group's access from different geographic locations. Although there were some limitations to using this particular software (e.g., browser settings, database access, etc.), the team developed a strategy to deal with the issues and proceeded with the review.

Our research group initially defined the terms of reference, and identified the critical focus of the review based upon the research questions. The search strategy for the review involved rigorous electronic and hand searching of key electronic databases and relevant journals, for which titles and abstracts were screened for relevance to the research questions, as defined by our inclusion criteria. The databases searched included ERIC, Academic Search Complete, ProQuest, and Education Source. A full list of the databases searched is included in appendix A, and the hand search results can be found in appendix B.

Identifying and Describing Studies

Our initial electronic database searches revealed 16479 reports and hand searching the journals uncovered a further 24 for potential inclusion. Duplications of electronic searches were removed which reduced the total number of reports to 6538. Our second step was to screen titles and abstracts of the citations found by electronic means against the following inclusion criteria; to have been published between 2004-2014, to have relevance to the research questions, to include empirical data, were set in early years, primary, secondary or compulsory education (K-12), and the study to be in English. A total of 4768 were excluded: 1696 for not being focused on the study context (exclusion criterion 2); 2775 not focused on our research questions (exclusion criteria 3), 315 were not empirical research (exclusion criterion 4); 44 not in English; and, 29 for being outside our date parameter. Following further exclusions of reports that proved to be unobtainable (N=11), the full texts of 734 studies were further screened against the inclusion criteria. A detailed systematic review-mapping chart can be found in appendix C.

Our third step was to undertake full article screening of the 734 articles in our sample. The research group applied the same exclusion criteria as the first screening, this time to the full-text articles that were not excluded from the first screening (n=734). Of these, 113 were selected for inclusion in our systematic map. For the full in-depth review, only

those studies key-worded as focusing on social, cultural and political contexts, with a population focus of compulsory education in the K-12 sector (students aged four to twelve), and featuring new and beginning teacher induction and mentorship programs, were included. The geographic location of the included studies contexts was also noted. Detailed results of this stage of screening can be found in our second systematic review-mapping chart included in appendix D.

For added security, citations uncovered by the search strategies were stored on EndNote in addition to the EPPI software, and titles and abstracts were screened against the criteria. Full texts of those that appeared to meet the inclusion criteria were obtained for further screening. All that met this final stage of screening were then key-worded and included in the systematic map. Quality assurance in both selection and key-wording of studies was ensured by double coding, where a sample of studies was scrutinized by two members of the research group using an inter-rater reliability framework based upon the research questions and inclusion criteria, and the results overlooked by a third person. Any discrepancies or inconsistencies were discussed and rectified according to the framework.

In-Depth Review

Following the production of the systematic map it was decided that the in-depth review should include studies key-worded as focusing on teacher retention, teacher attrition, new and beginning teacher support, induction, and mentorship, and that the population focus should be K-12 schools. Studies selected for the in-depth review was then rigorously analyzed based upon their overall suitability to respond to the research questions, and then used accordingly in our synthesis; the ultimate results were subsequently used to inform our conclusions. To extract data, we completed a three-stage coding process of the 113 articles. In stage one, we established a set of descriptive data for each of the articles, as shown in Table 4.

Table 4: Stage One Coding Process for Descriptive Analysis

Stage One Coding – Descriptive Analysis
<ul style="list-style-type: none"> • Geographic location of program featured in article • Context of program being researched (particular district/sample setting, i.e., suburban with high level of minority students in low SES) • Description (program goals and composition, i.e., two year includes mentoring and induction) • Purpose of research study/article • Method (Quantitative/Qualitative/Mixed Methods) • Main findings of article • Role of administration/principal featured (Y/N) • Instrument is detailed (Y/N)

In stage two, each article was coded for social, cultural, political/structural, and individual contextual and environmental variances and nuances. The complete set of codes for stage two of the coding process can be seen in Table 5.

Table 5: Stage Two Coding Based Upon Deductive Themes

Contextual and environmental variances and nuances				
Social (S)	Cultural (C)	Political (P)	Organizational/ Structural (O)	Personal/ Individual (I)
(S1) Peer relationships	(C1) Institutional culture (school, district, etc.)	(P1) Federal/national initiatives and or strategies	(O1) Programmatic Components' Impact	(I1) Sense of personal efficacy (for beginning teacher)
(S2) Emotional intelligence	(C2) State, nation (ideology, international movement of people)	(P2) State/province/county /municipal level initiatives and or strategies	(O2) Structural Conditions	(I2) Background prior to teaching
(S3) External Community relationships (external to school)	(C3) Demographical diversity (religion, ethnicity, SES etc.)	(P3) Teaching Unions/Federations	(O3) Admin Leadership	(I3) Personal initiative
5.		(P4) District school level	(O4) Teacher Leadership	
		(P5) School level	(O5) Facility Conditions	
		(P6) Wider community	6.	

Stage three of our coding process allowed us to capture any emerging themes that also responded to our research questions, these are shown in Table 6. We employed a comparative analysis, drawing on key issues and themes that were identified from the full-text articles, and evaluating the evidence against our research questions to identify articles that included programs linked with or responding to teacher attrition and retention, with specific contexts highlighted. The characteristics of the included studies can be seen in the systematic map shown in Appendix D.

Table 6: Stage Three Coding Based Upon Emerging Themes

Emerging (E)
E1 Development of instructional skills and teaching strategies (move to O1)
E2 Unclear roles of program participants (S1)
E3 Mode of delivery (i.e., online, face-to-face, handbook) (O1)
E4 Program matches expectations of mentor and mentee (O1 and Personal I3)
E5 Sense of personal efficacy (for beginning teacher) (Personal I1)
E6 Background prior to teaching (Personal I2)
E7 Support from outside of school context (family/friends/previous work colleagues) (S3)

Identifying and Describing Studies: Quality-Assurance Results

Each full-text study included the in-depth review underwent data extraction by a member of our research team, including an assessment of the weight of evidence. Where there were discrepancies in coding the full-text articles, the research team discussed these until a common appreciation was achieved. For all studies in the in-depth review, full agreement regarding included key issues and themes were established before the studies were analyzed in-depth.

Geographic Representation of Articles

In the analysis, we highlighted, where possible, the geographic representation of the articles featured in our review. This geographic representation is taken from the geographic location where the studies were conducted. Table 7 breaks down the articles by region, with the largest number of studies being conducted in the United States. In two articles, authors collected data from more than one geographic location, these are listed in Table 7 as *combined nations*.

Table 7. Geographic Location of Articles Included in Systematic Review

Geographic Region	Number of Studies Included
United States	63
United Kingdom	15
Canada	12
Europe (not including United Kingdom)	8
Australia/New Zealand	6
Middle East	6
Combined nations	2
Far East	1
Location not specified	1

In addition to highlighting the geographic regions we also identified, where reported, the locales within the regions where studies were conducted. These can be found in Appendix E.

Presentation of the Findings

The literature findings were organized into the following 6 categories of contextual factors related to teacher induction and mentoring programs:

- Social
- Political
- Cultural
- Personal/Individual
- Organizational
- Administrative²

Each of these categories are framed, defined, and presented in the chapters to follow.

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² Initially, Administrative category was envisioned as a subcategory of the Organizational category. However, due to the significant findings that revealed its standalone nature and important role in induction and mentorship programs, it is presented here as a separate category.

CHAPTER 4

SOCIAL CONTEXTUAL FACTORS

For the purposes of this review, social context was defined as referring to the immediate physical and social setting in which people live or in which something happens or develops. It included the interpersonal interactions, social institutions, and people's behaviour and relations within broader society, communities of people, or other social structures. From the total of 113 articles examined, 42 sources contributed in various degrees to this theme.

Two broad themes emerged within this category: a) *peer relationships*; and, b) *external community relationships*. Any information that referred to beginning teachers' relationships with their peers within an induction program was coded under Peer Relationships. Information that was concerned with relationships external to the school of focus involving a beginning teacher was coded under External Community Relationships. Sub-codes within each code under the Social theme are discussed below.

Peer Relationships

Within the Peer Relationships code, four sub-codes emerged from the data: a) *professional peer support*, b) *social peer support*, c) *emotional peer support*, and d) *absence of peer support*. Data that support the emergence of each sub-code are shared below.

Professional peer support

Few programs in the systematic review did not have some element of beginning teachers learning from their peers. A number of ways that beginning teachers received professional peer support were mentioned across programs, including team-teaching (Fenwick, 2011; Lambeth & Lashley, 2012), the establishment of planning partners (Ado, 2013), sharing of teaching-related information (Clausen, 2007; Findlay, 2006; Lambeth & Lashley, 2012), examination of subject-specific issues (Ado, 2013; Bianchini & Brenner, 2009; Clausen, 2007; Harrison, Dymoke, & Pell, 2006), easily accessible network of supportive persons and resources (Gehrke & McCoy, 2007a) assistance with marking (Harrison et al., 2006), and informal chats about teaching (Clausen, 2007; Eisenschmidt, Oder, & Reiska, 2013; Fenwick, 2011; Forbes, 2004; Lambeth & Lashley, 2012). A number of programs also featured opportunities for beginning teachers to make observations of their peers teaching (Fenwick, 2011; Forbes, 2004; Lambeth & Lashley, 2012). One study reported a beginning teacher sharing an positive experience she'd had observing her peers teaching, "[The beginning teacher] noted that in addition to seeing new ways of presenting content, it was also [positive] seeing that what [she] was doing wasn't all that different or bad, compared to what [her peers] were doing" (Forbes, 2004, p. 226). Another study reported a beginning teacher shared an experience of observing a peer teaching that influenced her own teaching: "The drama [teacher] used active learning all the time and this really changed my perspective on how to lead a class" (Fenwick, 2011, p. 331).

Beginning teachers also developed skills for the classroom and school from their peers, including one beginning teacher who shared an experience she'd had with a staff member who'd taught her to implement the use of technology into her lessons (Clausen, 2007).

Some beginning teachers positively noted a “give and take” relationship with formal and informal mentors, where a mutual sharing of ideas between peers was common, whereas beginning teachers often provided a spark and brought enthusiasm for more senior staff (Evans-Andris, Kyle, & Carini, 2006). It was also mentioned that both formal and informal mentors had success in using a method of support without direct instruction with their mentees (Lee & Feng, 2007; van Velzen, van der Klink, Swennen, & Yaffe, 2010). Davis and Higdon (2008) found that beginning teachers most valued frequent “just-in-time” assistance provided by the experienced, on-site mentors. Overall, beginning teachers appreciated the freedom to pick and choose information from their mentors most appropriate to their needs, retaining the flexibility to be able to develop their own style of teaching.

Social peer support

In addition to the professional support beginning teachers received from their peers in a number of programs, many programs featured expectations that formal mentors and other teachers would support the social integration of beginning teachers into the teaching community. Mentors were often expected to help their mentees become effective teachers, be active members of staff within the school community, and contribute to the broader community of educators. The importance of support with networking within the school was pointed out by a New Zealand study participant: “It’s important to get to know people in the school because when you develop relationships it means you can get as much information and help as you need to do things well” (Grudnoff, 2012, p. 480).

Overall, as described within different programs, peers helped beginning teachers with socialization into the teaching profession (Achinstein, 2006; Burris, Kitchel, Greiman, & Torres, 2006; Fletcher & Barrett, 2004; Friedrichsen, Chval, & Teuscher, 2007; Nasser-Abu Alhija & Fresko, 2010; Tillman, 2005). The process of socialization included mentors acting as a guide for social interactions, assisting with social functioning with the school community, role-modeling both as a teacher and staff member, and generally assisting new teachers to navigate the school within and beyond the school. Aside from formal mentors assisting with the integration of beginning teachers into the teaching community, many beginning teachers acknowledged a supportive and encouraging staff culture that supported novice educators in transitioning into their role (Grammatikopoulos, Tsigilis, Gregoriadis, & Bikos, 2013; Griffiths, 2011; Haigh & Anthony, 2012). In one program, a mentor highlighted how unclear expectations resulted in them not knowing whether to just act as a guide within the local school community or to help the beginning teacher become an agent of change to improve the school system (Achinstein, 2006).

Emotional peer support

The emotional impact of having supportive peers, whether formal relationships as mentor and mentee or informal systems of support, was mentioned in a number of programs. One program featured an open-discussion format for beginning teachers to share experiences with their peers, which provided emotional support for many beginning teachers (Alharbi & Kinchin, 2012). Beginning teachers often mentioned trust as the most important feature of a supportive relationship between peers (Dempsey & Christenson-Foggett, 2011;

Donne & Lin, 2013). Trust allowed beginning teachers to feel confident in asking their peers anything without fearing the repercussions, but building trust takes time as one beginning teacher shared: “I have become more open. I ask more questions. I now realize she is here to help me become a better teacher. So, anything I need, now I’m not afraid to ask. [The relationship has] grown. I wasn’t that way in the beginning” (Gardiner, 2012, p. 204). Similarly, Young and Cates (2010) found that empathy and directive listening on the part of mentors plays the central role in helping beginning teachers manage various tensions of socialization into the teaching profession.

The emotional support that beginning teachers received from their peers was cited as an important factor in helping them through tough times in their new role (Clark & Byrnes, 2012; Dempsey & Christenson-Foggett, 2011; Fox, Deane, & Wilson, 2010; Friedrichsen et al., 2007; Gellert & Gonzalez, 2011). The significance of support received from peers was expressed in one of the studies: “After school, if I have any problems, I have a couple of teachers that I always go to and if I’m crying they’ll get me to stop and calm down” (Friedrichsen et al., 2007, p. 174).

Beginning teachers also pointed to the importance of respect in the relationship with their peers (Fenwick, 2011). It was important for beginning teachers to respect their peers, and it was equally important for them to feel respected and needed for mutual emotional support. Other beginning teachers felt that a strong mentor-mentee relationship had to also feel like a friendship (Achinstein & Barrett, 2004; Burris et al., 2006; Lee & Feng, 2007). However, as one mentor suggested, at times it was difficult to strike a healthy balance between providing advice and feedback to help the mentee grow as a teacher, along with providing the emotional support of being a friend (Achinstein & Barrett, 2004).

Absence of peer support

In addition to the value of programs that feature the types of support beginning teachers receive from their peers, there is also value in examining the conditions of programs that have led to a lack of support for beginning teachers. A number of beginning teachers that did not have formal mentors emphasized powerful feelings of isolation (Brindley & Parker, 2010; Cherubini, Kitchen, & Hodson, 2008). Being without a formal mentor sometimes looked like the following experience: “The only one that would greet me in the morning and say hi was the custodian.... I would walk into the staff room [and] everybody would go quiet” (Cherubini et al., 2008, p. 82).

Other beginning teachers experienced the same feelings when they perceived that they had no relationship with their mentor, and they stressed the negative impacts associated with a lack of mutual respect between mentor and mentee when these relationships first began. One beginning teacher shared her experience: “[My assigned mentor] was really critical from the start and I felt it personally. It just made me feel useless” (Grudnoff, 2012, p. 478). Another teacher who had a formal mentor still experienced feelings of isolation from other staff that she felt did not make an effort to help her integrate into the teaching community:

Despite her relationships with her mentor and her principal, she commented that she felt somewhat isolated at [the school]. In her 2 years, she felt that few of the veteran teachers had made an effort to get to know her, learn about her approach to teaching, or respond to her efforts to get to know them. (Youngs, Holdgreve-Resendez, & Qian, 2011, p. 469)

Similarly, beginning teachers described entrances into the network of practicing teachers as hard, intimidating, and judgmental (Bieler & Burns Thomas, 2009). Feeling marginalized, the new teachers in this study were rarely in a position of influence in setting the meeting's direction and were regularly positioned as more passive participants until they learned the particular method of inquiry practiced in the group.

Overall, from the studies contributing to this section, it was evident that peers provided beginning teachers with different types of support that helped them grow as teachers, become active members of the teaching community, and to feel emotionally comfortable in their new roles. It was also clear that a lack of support could have a negative impact on new teachers, and that implementation of certain organizational features to provide support to beginning teachers had rather negative impacts.

External Community Relationships

Within the External Community Relationships code, three sub-codes emerged from the data. The three sub-codes included (a) formal professional relationships; (b) non-formal professional relationships; and, (c) non-professional relationships. Data that support each sub-code are shared below.

Formal professional relationships

The formal professional group included individuals who were working in education and who were formally affiliated with new teachers in the profession. New teachers reported multiple formal professional sources of feedback directly related to their profession. School psychologists, curriculum facilitators, and induction coaches were all cited as sources of some form of feedback (Gardiner, 2012; Gehrke & McCoy, 2007b; Gellert & Gonzalez, 2011; Lambeth & Lashley, 2012). One new teacher shared her experience of her professional relationship with her special education director: "[The Director] came to visit my department as a result of our discussions on the wiki. She was able to help me with a student I was struggling with this school year" (Taranto, 2011, p. 13).

Non-formal professional relationships

The non-formal professional group included individuals who were working in education but who were not formally affiliated with new teachers in professional relationships. New teachers reported their own use of online learning communities and social networking with other educators external to their school (Brock & Chatlain, 2008). Wiki pages were also cited as being used for support from the external community (Donne & Lin, 2013), as were former faculty members from schools new teachers had initially received training from in teacher education programs (Achinstein & Ogawa, 2011; Donne & Lin, 2013).

Non-professional relationships

The non-professional group includes individuals who were not working in education, but nonetheless had relationships with new teachers. New teachers identified community members (Brindley & Parker, 2010), including parents of their students (Castro, Kelly, & Shih, 2010; Perry & Hayes, 2011) as important non-professional relations. Earning the trust of the community members was cited as the most important factor determining the quality of the relationship with the external non-professional community, especially in forming a relationship with members of the community as an outsider coming from a different community (Burton & Johnson, 2010). Personal networks were also cited as a

source of support for new teachers: “A small number in each case referred to friends (especially those who were teachers) and relatives as sources of support” (Abbott, Moran, & Clarke, 2009, p. 104).

CHAPTER SUMMARY

Many new teachers benefitted from team approaches that included team-teaching, planning, marking, and formal mentoring with opportunities for teaching observation. Mentors were cited numerous times for their role in socializing new teachers into the teaching profession through role modeling, guiding and assistance in navigating the profession generally. Strong mentoring relationships involved two-way trust and respect, and went a long way in getting new teachers through inevitable challenges of the profession—negative experiences that were amplified for new teachers that did not have strong mentoring relationships. New teachers received support through formal relationships as a part of their role, as well as non-formal relationships with other educators, and even relationships outside of the teaching profession.

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CHAPTER 5

POLITICAL CONTEXTUAL FACTORS

For the purposes of this research, political context was defined in a broader sense as referring to the environment in which policy was produced indicating its purpose and agenda. In other words, these factors consisted of an aggregate of policymaking aspects in various civil, national, and public environments that were relevant to action. This broad definition included such organizing aspects as structure, order, and behaviour at the government and local levels, the power distribution of power, the range and interests of involved organizations, and the formal and informal rules that govern the interactions among different stakeholders. From the total of 113 articles examined, over 50 sources contributed in various degrees to these themes.

Based on the analysis of the sources that addressed the political contextual factors of induction and mentoring programs, we categorized findings according to the following levels at which policies, initiatives, and strategies were represented:

- Federal/national level
- State/province/county/municipal level
- District school level
- School level
- Community level

National or Federal Political Factors

Within the Federal/National Initiatives and/or Strategies code, three sub-themes emerged from the data. These sub-themes include: (1) Beginning teacher induction program development to comply with state/governmental mandates, (2) Programmatic elements increasing beginning teacher awareness of state/national policies and administrative duties, and (3) The need for emphasis on customized support for new teachers at the National/Federal level.

Program in place to comply with state/government mandates

A number of studies highlighted the establishment of an induction and/or mentoring program as a result of National/Federal mandates. Often, studies noted the program policies and guidelines as the method in which the authorities at this jurisdictional level outline beginning teacher induction program elements. For example, Parkinson and Pritchard (2005) spoke about how the “principles set out in the government guidelines require the tutor to provide constructive feedback to the NQT throughout the induction year” (p. 64). Likewise, Brock and Chatlain (2008) reported on diocesan or district sponsored induction support for Catholic teachers, noting that six dioceses in America reported the development of induction support to fulfill the Federal mandate.

In a different perspective, researchers in another study outlined the discrepancy between the Federal/National program mandates and the actual program itself. More specifically,

Anthony, Haigh, and Kane (2011, p. 861) noted that the “federal (official) induction is robust and well supported as seen from the outside, though not as evident from the inside due to great variation in schools.” Similarly, in the Israeli context, several researchers found discrepancy between the mandates and outcomes (Lazovsky & Reichenberg, 2006) and a partial implementation (Fresko & Nasser-Abu Alhija, 2009) of a national mandatory induction program for beginning teachers. Fresko and Nasser-Abu Alhija (2009) noted a significant gap between program directives, which embodied the policy of the Ministry of Education, and the actual manner in which the program was implemented, mainly due to program directives’ assumption of an ideal situation for implementation.

Programmatic elements that increase beginning teachers’ awareness of federal/national policies and administrative duties

Several studies outlined the role of the beginning teacher induction program in fostering an understanding of the national/federal policies and procedures. Perry and Hayes (2011, p. 10) found that test results showed that beginning teachers’ “ability to understand local, state, and federal policies and procedures” was significantly improved after three years of teaching in comparison to their first year. The Greek Ministry of Education induction program targets support for beginning teachers in this area through their 100-hour induction program (Grammatikopoulos, Tsigilis, Gregoriadis, & Bikos, 2013). Program evaluations revealed that beginning teachers valued the opportunity for specific training that focused on duties, legal rights, and obligations which is a rare opportunity for many Greek teachers.

Need for emphasis on customized support for new teachers

Several studies noted the importance of National/Federal initiatives and strategies being flexible and applicable to best support beginning teacher needs. One group of researchers discussed how teacher support should include cultural aspects in order to maintain the dignity of the culture in which they are located. This preservation of the culture is essential for beginning teacher and student success and without it “levels of confidence immediately following training programs will remain low” (Cajkler & Hall, 2012, p. 225).

Another study highlighted the value placed on the physical space of the school by beginning teachers. In particular, Buckley, Schneider, and Shang (2004) found that beginning teacher retention was influenced by a school focus on improving the school facility. These researchers posited that the benefits of facility improvement for teacher retention were equal or above pay increase value while also being cost-effective over the long term.

State or Provincial Political Factors

Within the State/Province/County/Municipal Level Initiatives and/or Strategies code, four sub-codes emerged from the data based on region. The two sub-codes included (a) North America and (b) Asia and Oceania. Though initiatives and/or strategies from other parts of the world were included in the systematic review, these initiatives and/or strategies were mostly national programs or at other levels not included in this code. Data that support the emergence of each sub-code are shared below.

North America

All of the initiatives and/or strategies for North America are at the state/provincial level as education is operated at these levels for both Canada and the United States.

Within Canada, several studies (Cherubini, 2009; Cherubini, McGean, & Kitchen, 2011; Cherubini, Niemczyk, Hodson, & McGean, 2010) referred to the New Teacher Induction Program (NTIP) in the province of Ontario. In particular, Cherubini (2009) detailed the exemplary teacher induction program in one of the boards that incorporated many of the comprehensive components of induction as identified by the Ontario Ministry of Education and the Ontario College of Teachers (the governing body of the teaching profession). The induction components include mentoring by a selected and experienced teacher (selected by the induction program coordinators in accordance with a specific criteria), release time for both protégés and mentors, professional in-service throughout the school year for mentors and protégés, regular meeting sessions for new teachers from across the school board facilitated by induction providers (who were seconded school administrators from the same school board), and Teachers' Federation-sponsored events to further service the needs of the novice teacher cohort. In this study, the author found that the new teachers who benefited most from the induction program were those whose perceptions of induction as a sound investment to improve teaching and learning were complemented by school cultures that integrated their professional development in holistic and communal endeavors. On the other hand, Hinds and Berger (2010) noted how the politics and conflict between the Ontario College of Teachers and the teacher federations detrimentally affected beginning teachers' identity by preventing many new teachers from receiving the guidance they needed from these organizations that set standards and guidelines for the profession and had the responsibility to safeguard the quality of public education.

In California, several state level initiatives were evident as a part of the mandatory Beginning Teacher Support and Assessment (BTSA) program (Achinstein, 2006; Achinstein & Davis, 2014; Bianchini & Brenner, 2009; Bianchini & Cavazos, 2007; Fletcher & Barrett, 2004), including intensive individualized support and assistance for new teachers and a mentoring initiative pairing novice and expert teachers with opportunities for co-planning, inquiry, and observations. In Pennsylvania, a University paired with statewide induction initiatives to provide links on a wiki page to state education association videos to support new teachers (Donne & Lin, 2013). In Connecticut, all 2nd year teachers are required to complete portfolios and beginning teachers are supplied with mentors as a part of the Beginning Educator Support and Training (BEST) program (Youngs, Holdgreve-Resendez, & Qian, 2011).

Asia and Oceania

Two articles included provided information about initiatives in China and New Zealand, where state-level initiatives and/or strategies were outlined for each country. In China, new teachers have benefitted from induction initiatives since 1994 as outlined by the State Education Commission including support with lesson preparation and implementation and mentoring at both the primary and secondary school levels (Lee & Feng, 2007). In New Zealand, new teachers are supported by state-funded reduced teaching commitments for the first 2 years, as well as initiatives like reflective writing, observations of colleagues' teaching, networking with new teachers in the school, and targeted professional development opportunities (Anthony et al., 2011; Haigh & Anthony, 2012).

District Level Political Factors

Several studies outlined school district responsibilities in the organization of teacher induction and mentoring programs. These responsibilities included: hiring and assigning instructional facilitators as full-time mentors for a group of beginning teachers (Kamman & Long, 2010), district evaluations conducted by superintendents as a source of support for beginning teachers (Chatlain & Noonan, 2005), and district administrators working directly with mentors who advocated for novice teachers' needs (Achinstein, 2006). Of particular interest was a study that described one district's intense induction program in Missouri, USA, specifically designed for special education teachers and geared towards developing teaching quality and increasing teacher retention (Kamman & Long, 2010). In this program, district-assigned instructional facilitators worked alongside with school-based mentors. While the facilitators focused on instructional needs (i.e., improving classroom practice to increase student achievement), mentors provided support on school-based needs (e.g., paperwork, immediate classroom dilemmas, school policies and procedures, and collegiality). As a result, beginning mentor/mentee relationships were found to benefit from "trust and rapport" (p. 27).

One of the most widely discussed formats of district level induction support was professional development. As Lambeth and Lashley (2012) noted, beginning teachers perceived professional development as a significant determining factor within the support system in this school district. One participant emphasized that "school district had supported her as a beginning teacher through the new teacher seminars with the induction coordinator and the induction coach, and from one-on-one meetings with the induction coach" (p. 44). An alternative format to the face-to-face meeting was described by Taranto (2011) in a study that detailed the process of embedding online learning community into a broader program of support for beginning teachers. As a result of this additional format, central office administrators were able to interact and support new teachers. One of the teachers noted, "If it was not for the wiki I would have never known that the teachers needed help" (Taranto, 2011, p. 13).

Further analysis revealed such political contextual factors as district size, policies, funding that either promoted or hindered the effectiveness of beginning teachers support at the district level support. The factor of school district size was deemed instrumental in a positive perception of district-level support for new teachers' professional growth. In this study, the smallness of districts was perceived by teachers as friendly and engendering the sense of community. Whereas in the large district one participant thought she would "get lost and swallowed up", the small district allowed her curricular freedom and tight-knit professional network (Anderson & Olsen, 2006, p. 367). Moreover, adequate district funding to ensure that beginning teachers have facilities and resources needed to effectively do their job was deemed an essential positive factor (Wynn, Carboni, & Patall, 2007).

On the contrary, negative factors that hindered effective program impact were lack of encouragement and support at the school district level and insufficient time for beginning teachers to observe their mentors teaching (Certo, 2005), inconsistencies in district policy involving mentor selection and assignment (Youngs, 2007), lack of responsiveness by district staff for requests for assistance in accessing specific services and background information on the characteristics and needs of students (Dempsey & Christenson-Foggett,

2011), and pre-set curriculum that the district expected them to teach (Black, Neel, & Benson, 2008).

School Level Political Factors

Understanding of political contextual factors was most important in the process of socialization wherein beginning teachers learn to adopt the norms of the school context. Our analysis revealed multiple references to micropolitics, or the overt and covert (formal and informal) processes to acquire and exercise power in order to promote or protect interests within an organization (Yendol-Hoppey, Jacobs, & Dana, 2009). Novice teachers often had to negotiate complex organizational contexts beyond the classroom level that included considerable variability in access to resources appropriate to the needs of individual teachers (Anthony et al., 2011), political agendas of school administrators (Grudnoff, 2012), policy limitations (Sabar, 2004; Youngs, 2007), workload issues and poor relationships among staff (Sabar, 2004), social justice issues (Yendol-Hoppey et al., 2009), and dealing with school achievement goals that may necessitate that new teachers are more effective than their more experienced colleagues (Fletcher & Barrett, 2004) or carry out same regular and additional tasks as experienced teachers (Gaikhorst, Beishuizen, Korstjens, & Volman, 2014).

The need for micropolitical literacy was referenced in relation to both mentors and new teachers. Researchers argued that new teachers need to develop not only “the 'knowledge of teaching' but also 'knowledge of the micropolitics of urban schools' that might enable them to survive” (Yendol-Hoppey et al., 2009, p. 35). Mentors’ have a considerable role to help mentees navigate the micropolitics operating within the school context. Moreover, the same authors concluded that resolving the tension between success and survival of new teachers both mentors and new teachers have “to understand, inquire into, and at times challenge the micropolitics that work within the individual school context” (Yendol-Hoppey et al., 2009, p. 40). Similarly, Achinstein (2006) posited that overwhelming majority of participants reported that mentors need to not only read the organizational and political system, which includes knowledge and understanding of cultures and systems, key players, and political processes in the school and the district, but also have the responsibility to assist with developing political lenses in the novices as well. In her view, this will ensure that novices the bigger picture, know the unspoken rules, and learn about department issues, school change outside their classroom, and a principal's point of view and needs.

Micropolitical literacy for mentors and novices also involved developing strategies to address the micropolitical terrain in school. Achinstein (2006) emphasized “mentors' need for a repertoire of strategies to navigate challenges of organizational contexts 'diplomatically' and to develop such skills in the new teachers” and “knowledge of how to advocate for change and an ability to foster self-advocacy in new teachers” (p. 127). Recognizing the role that the political and social organization of the school plays in the experience of beginning teachers, Castro, Kelly, and Shih (2010) reported a variety of ways that their participants strove to change the conditions of their teaching for the better. These authors advocated for the need for beginning teachers to affirm their agency and develop resilience strategies to navigate and overcome pressures from the social context and to transform negative aspects in their school environment (Castro et al., 2010). Important for novices was also learning about legal duties and rights (Grammatikopoulos

et al., 2013) and starting questioning and becoming reflective practitioners if they were to become successful (Yendol-Hoppey et al., 2009).

The implications for school leadership to address the micropolitical aspects of school life were also highlighted. Achinstein and Ogawa (2011) asserted that educational leaders and policymakers need to reconsider any inequitable organizational contexts that may limit the opportunities of new teachers of color to learn and develop as professionals. Gaikhorst et al. (2014) found that a lack of clearly formulated and documented goals and expectations for novices contributed to negative perceptions of school support practices. Whereas, “at the schools where teachers judged the support positively, the rules and agreements about the way of working at the school were well documented, so teachers knew what they could expect” (Gaikhorst et al., 2014, p. 31). Helpful in this regard is creating a learning school culture in order to retain and develop novice teachers (Yendol-Hoppey et al., 2009). Ado (2013) argued that establishing structured opportunities for interaction provides both early-career and more experienced teachers with “the chance to learn from each other and to address individual needs that arise out the various intersecting factors at the school site” (p. 149). Similarly, it was suggested that “when schools do not establish common learning goals or instructional strategies, there is less of a basis for novices to engage in productive interactions with mentors or colleagues” (Youngs et al., 2011, p. 474). Most importantly, relationship building with experienced teachers and school administrators has been deemed an important strategy for the novices’ ability to negotiate the micropolitics of the school (Yendol-Hoppey et al., 2009).

Community Political Factors

The least frequently mentioned, albeit also deemed important, were the political factors related to beginning teachers’ and schools’ interactions and involvement in the broader community. It was noted that new teachers’ integration into community and lifestyle of community was important (Kono, 2012) due to the fact that distributed support for new teachers often included support from outside the school environment and from home (Anthony et al., 2011). Some researchers argued that through collaboration, new teachers and all stakeholders in urban education — teachers and family members, school administrators, and community leaders — would be better able to push back against the ideologies, beliefs, and practices that perpetuate the educational inequalities in school systems (Alkins, Banks-Santilli, Elliott, Guttenberg, & Kamii, 2006).

CHAPTER SUMMARY

This chapter illustrates the presence of mandates at political levels impacting schools, educational policies and practices. As described, implementation of supports for beginning and new teachers was commonly noted within the literature and recognized on an international scale. At the school level, micropolitical aspects impact greatly upon all support designs and program implementation.

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CHAPTER 6

CULTURAL CONTEXTUAL FACTORS

For the purposes of this research, cultural context was defined in a broader sense as referring to the eclectic environment wherein humans learn to organize their thoughts, emotions, and behaviors based on shared norms, beliefs, values, customs, and traditions that are common to a group of people. Culture is a way of life that is defined by race, gender, ethnicity, age, and other broad geographical and demographical contributing factors. Cultural contexts can also be constrained to institutional and organizational frameworks within which individuals' social interactions occur. From the total of 113 articles examined, 65 sources contributed in various degrees to this theme.

Three overarching themes were seen within cultural aspects of induction and mentoring programs, *institutional culture* (i.e., school or district), *state or nation* (i.e., ideology or movement of people), and *demographical diversity* (i.e., religion, ethnicity, socio-economic status). Seven further sub-themes were then identified within these three main themes:

- Remaining in teaching
- Teaching philosophies and ethos
- Socialization with peers
- Role of mentors
- Influence upon career/professional development
- Exposure to diversity
- School demographics.

Remaining in Teaching

Some evidence was seen in three of the articles of schools attempting to create a culture where all staff would be encouraged and facilitated to remain either in their teaching jobs within the school or district, or more broadly remain in the teaching profession. Commenting on the influences of induction upon new teachers in Chicago, researchers commented that "...teachers working in classrooms with a higher percentage of students with behaviour problems are much less likely than their peers to report a good teaching experience, to intend to continue teaching, and to plan to remain in the same school" (Kapadia, Coca, & Easton, 2007, p. 18). The notion that a culture could be created within a school or district such as would help to retain new teachers in their jobs was put forward. For example, in a study of mentoring new teachers in urban schools in the northeast United States, it was stated "he [the mentor] believes he must contribute to creating a learning culture within his school in order to retain and develop novice teachers" (Yendol-Hoppey, Jacobs, & Dana, 2009, p. 37).

In another United States based study, the focus was on examining teacher retention through a professional learning communities framework. Researchers noted a significant positive correlation between school climate and teacher's decision to remain in the school district, suggesting that the improvement of working conditions improve positively affects

teachers' predisposition to plan to remain in the school district (Wynn, Carboni, & Patall, 2007). Hence, "working conditions, a component of school climate, was related to beginning teachers' decisions to remain at the school" (p. 222).

Teaching Philosophies and Ethos

Several of the articles commented upon the philosophy of teaching held by beginning and new teachers and the overarching ethos of a school or school district. A common theme discussed throughout the articles was a lack of alignment or mismatch between the philosophy held by the novice teacher and the school where they taught. Empirical evidence was found from novice teachers who commented upon this alignment issue. For example, a novice Ontario-based teacher described a school culture that contradicted his philosophy of education and ideal vision of the profession at the root of his new teacher experience, and termed it as "the ugly side of teaching" (Fantilli & McDougall, 2009, p. 821). In a different study, on the ethos of a department within the school, a participant noted: "there is a poor ethos in our department and I have no faith that my work is appreciated. At the moment I'm struggling to be a teacher" (Fenwick, 2011, p. 332).

In a study of five newly qualified teachers in one school in England, researchers reported a philosophical mismatch between novice teachers and the school or school district, with one novice teacher stating "I don't necessarily think we're all going in the same direction" (Findlay, 2006, p. 542). One study reported that the differences in philosophy between different staff members within a school caused significant levels of tension. Researchers found that in one school district in the United States, novice teachers spoke of a "sometimes acrimonious divide among staff" and outlined the need for "coalition-building support" (Anderson & Olsen, 2006, p. 367). In addition, a tension was seen between the philosophy of novice teachers and their mentors. For example, in one study of new teacher/mentor pairs in California, researchers reported how the mentor struggled to find a way that respected the new teacher's values, while introducing some of her concerns (Achinstein & Barrett, 2004). The authors explained how the novice teacher also recognized the challenges of a school culture (e.g., messages from principal and colleagues) that reinforced the mentor's *managerial frames and eclipsed the political frames*. The authors also indicated that the mentor realized that her critical approaches might have brought the new teacher into conflict with her school culture.

Similarly, the aspect of 'fitting in' occurred for novice teachers in New Zealand who found themselves in schools with a strong 'craft knowledge' culture (Anthony, Haigh, & Kane, 2011, p. 866). Novice teachers were experiencing differences between pedagogical practice experienced in their teacher training and pedagogical practices they were exposed to in their induction year. The authors detailed how "the more ambitious pedagogies advocated in ITE [initial teacher education] were discouraged in favour of traditional safe approaches to teaching;" whereas some NQTs [newly qualified teachers] further revealed how "an explicit awareness of the pull (and sometimes push) to abandon their initially desired practices for safer, less complex activities or actions (Anthony et al., 2011, p. 866). Reporting on a partnership between seven colleges and universities, and three urban school districts that were part of the Massachusetts Coalition for Teacher Quality and Student Achievement, researchers summarized how "the process of developing a teaching philosophy requires a beginning teacher to identify firmly held beliefs about learning and examine them critically. Some beginning teachers come to the profession with a universalistic perspective of learning, and some teacher preparation

programs even reinforce such a position” (Alkins, Banks-Santilli, Elliott, Guttenberg, & Kamii, 2006, p. 68).

In a study focused on novice teachers in a western Canadian Catholic school district, emphasis was given to examining the impact of the induction process for novice teachers in a religious school (Chatlain & Noonan, 2005). Researchers noted that all novice Catholic schoolteachers either shared Catholic beliefs or were at least not hostile to them, and assumed that they had an understanding of and empathy for the core values and religious beliefs that guide Catholic education. However, the researchers also highlighted potential differences in learning how the beliefs and values of the faith apply in a classroom setting: “For example, a new teacher’s philosophy of education may have been greatly influenced by the secular undergraduate preparation; this secular perspective on education may be vastly different than what is espoused in Catholic education. Religious values must be internalized differently than social values, and these values cannot be simply handed on to new members” (p. 510).

Socialization with Peers

The socialization of novice teachers was a prevalent theme across many of the 113 articles examined. However, within the cultural context, socialization was prevalent in six different articles. In some studies, focus was given to the challenges presented by a cultural context that did *not* facilitate social interaction. For example, in a study focused on the induction activities undertaken by a group of agricultural teachers in the United States, researchers described how beginning agricultural education teachers were not prepared for isolation and socialization issues that were often part of the organizational environment of schools (Greiman, Walker, & Birkenholz, 2005). In a study of 700 beginning mathematics teachers in Germany, researchers described the challenge of limited opportunities for new teachers to socialize with their peers, highlighting how many of their participants reported that either lunch or break-time was the only opportunity for them to get together and talk with other teachers in their school (Alharbi & Kinchin, 2012).

In one study, the focus was on the needs of a mentor in helping protégés with their socialization needs, “as part of the socialization role, mentors identified needing knowledge of how to “navigate school contexts and work within different systems to mentor effectively” (Achinstein & Davis, 2014, p. 112). Further attention was given to reporting the benefits of a culture of socialization within a school for novice teachers. For example, in a study of a successful small urban school, researchers reported how “establishing structured opportunities for interaction provides both early career and more experienced teachers with the chance to learn from each other and to address individual needs that arise out the various intersecting factors at the school site” (Ado, 2013, p. 149). In addition, in a study of beginning teachers from three different education authorities in England, researchers asserted “it is evident that collaborative, collegial and supportive ways of working within groups of experienced teachers may compensate to some extent for any lack of formal structures for mentoring” (Harrison, Dymoke, & Pell, 2006, p. 1062). Further comments upon the value of a culture of socialization in schools were seen in a study of New Zealand novice teachers’ experiences of the first six months of teaching. Researchers described how the novice teachers “appreciated ‘knowing that they were not alone’ in terms of receiving professional support and talked about the value of working in a school that ‘shares information, resources and ideas’ and where other teachers ‘talk openly about their teaching and what is going on in their programmes’”(Grudnoff, 2012,

p. 479). The researchers asserted that “such a collegial approach meant that the new teachers did not feel ‘threatened’ or ‘made to feel dumb’ when they needed help with addressing their own professional development needs because: The school philosophy is that no one is perfect; that we are all learning and that we are there to support each other. That means I can go to anyone, not just because I am a beginning teacher but because it’s school policy” (Grudnoff, 2012, p. 479).

Role of Mentors

Three studies alluded to the role of mentors in creating a positive culture for novice teachers at the institutional level. One of the studies, focussing on the knowledge and practice base of mentoring in programs in California, described mentor roles as complex and in need of a culture of training and support. In particular, researchers highlighted how it is “often assumed that a good teacher will naturally be a good mentor regardless of subject matter, but, this study revealed the complex mentor knowledge/practice base needed to support novices’ content teaching which, current mentor development approaches may lack” (Achinstein & Davis, 2014, p. 123). The researchers also explained the danger of programs that “recruit expert teachers and do not support their development as content mentors leave them ill equipped to guide novices’ subject matter teaching” (p. 123). Citing the success of the programs in their case study, Achinstein and Davis reported how the participant mentors not only had a strong content and teaching background in their disciplines, but were also matched with mentees in their same subject area, and engaged in ongoing professional development focused on content mentoring. Moreover, another study illustrated “how they [the mentors] consider that they contribute to the maintenance of a positive climate and help the new teachers to feel members of the school family, when they see all the teachers equally and democratically, without any discrimination” (Iordanides & Vryoni, 2013, p. 81). Yet, in spite of overwhelming understanding that mentors’ role is critical in creating positive collaborative learning cultures for novice teachers, another study that focused on novice teachers in a rural school in Australia, found that most mentors “continued to see themselves as the ‘expert’ teachers and their mentees as ‘novice’ teachers; failing to take into consideration the valuable skills and knowledge early career teachers’ bring to the relationship” (Beutel & Spooner-Lane, 2009, p. 357).

Influence upon Career and Professional Development

Although evidenced in a small sample of the articles examined, the potential for ongoing impact upon the novice teacher legitimates the significance and worth of reporting on this theme. In two of the articles, mentoring and induction activities in teachers in California were seen to directly impact the ongoing career and professional development of the novice teacher. In one study, focused on new teacher and mentor political literacy, both seen as essential skills for teachers, the author identified three critical domains of participant mentors’ knowledge of political contexts: reading, navigating and advocating. In each domain, the researcher’s respondents reported, “that mentors need knowledge, skills and commitment themselves and the ability to foster these in new teachers” (Achinstein, 2006, p. 126).

In a study that focused on new Israeli teachers’ satisfaction with their first year of teaching, researchers presented empirical evidence that “...schools which do not assume that good teaching is an innate talent, purposefully and continuously engage new teachers in the culture and practices of the school” (Nasser-Abu Alhija & Fresko, 2010, p. 1596).

Exploring whether induction for new teachers matters, the authors of this study asserted that school staffs that show a professional interest in their new teachers and help them deal with difficulties in teaching thus send implicit messages that novices are not alone and that their success in teaching is a shared effort.

Exposure to Diversity

It was in this theme that the most overwhelming evidence was seen from many of the 65 sources that contributed to cultural contextual and environmental variances and nuances. Many of the novice teachers who participated in an assortment of the 65 research studies reported how being exposed to a culture of diversity in their teaching contributed to their knowledge of diversity issues relevant to their classrooms and ongoing professional development. In some instances, the diversity of student cohorts impacted upon the novice teachers. For example, in one study of the induction of Dutch beginning teachers in urban environments, researchers described how "addressing language differences was experienced as difficult by several teachers...two teachers stated that it was more difficult to create a safe atmosphere in the classroom in a large city because so many children with different backgrounds and stories are placed together" (Gaikhorst, Beishuizen, Korstjens, & Volman, 2014, p. 31). However, the researchers clarified that this environment did not present overwhelmingly difficult *problems* for beginning teachers, as they perceived these as challenges rather than real problems because they had received adequate support as they worked through these issues.

In another study, of the reality of teaching during the first year for novice teachers in England, researchers stated how one participant was "not alone in admitting that she had not anticipated the importance of understanding where they are coming from - family background, cultural background etc." (Hagger, Mutton, & Burn, 2011, p. 396). In addition, researchers conveyed that novice teachers expressed being taken aback at the extent of their colleagues' knowledge, "they know these kids much more as individuals that I would have imagined it was possible to have done" (p. 397). In a similar vein, in a study exploring the needs of beginning teachers in England who were teaching students with English as an additional language, researchers highlighted that novice teachers' students had helped them to overcome the challenges of teaching in culturally diverse environment (Hall & Cajkler, 2008). Researchers described that the need to learn about different languages and cultures was a frequent theme, especially among monolingual NQTs: "I think I have increased my linguistic knowledge because you don't really think about how languages are structured before and now I really do...I feel I have learned a lot about Muslim culture. Just everything they tell you, what they did after school ... It really opens your eyes. You bring that into your teaching" (p. 352). Other challenges were mentioned: predicting the country of origin and native language of the ELL student; feeling ill-prepared to teach ELL students; requiring more background knowledge on European (Portuguese and Polish), Asian, and African languages (Somali, Shona).

Some studies explored how cultural difference could cause tension in the relationships between novice teachers and their students. In one study of how novice teachers of colour negotiate the sociocultural challenges in their classrooms, researchers identified how "it is assumed in the literature that teachers of color will experience a cultural match with their students of color and thus have better connections and be more effective" (Achinstein & Aguirre, 2008, p. 1513). However, the reality of the study findings was that 93% percent (14/15) of the novice teachers reported challenges about their sociocultural identifications

from their students of color, viewing them as “culturally suspect, calling into question their sociocultural identifications and authenticity” (p. 1513). Authors asserted “if teachers of color who expect to be cultural matches with their students of color find themselves culturally suspect and challenged by their students, this study suggests that induction supports are needed to help address a new form of practice shock” (pp. 1530-1531). To this end, the study suggested that beyond pre-service, induction programs and schools need to focus on developing and supporting multicultural capital among novices of color; should support novices in engaging students in meaningful exploration of sociocultural issues; and need to help new teachers of color negotiate the complexities of being a cultural match and a cultural suspect in their own classrooms.

Authenticity was also important in a study of Aboriginal novice teachers’ experiences. One study, reporting upon the experiences of novice teachers in Canada, emphasized the criticality of new teacher induction being adapted to the needs of Aboriginal educators in order to preserve Aboriginal languages and cultures and to enhance the future success of Aboriginal students. The researcher explained how, induction programs that heighten beginning teachers’ sensitivity toward Aboriginal students’ culture, language, and worldview furthered novice teachers’ professional competence (Cherubini, 2008). A further study highlighted implications for Aboriginal novice teachers’ given that Aboriginal knowledge is vastly underrepresented in Ontario schools. In this study, researchers stressed how their participants indicated a disciplined commitment to “self-identify as Aboriginal peoples first, and then as new Aboriginal teachers” (Cherubini, Niemczyk, Hodson, & McGeen, 2010, p. 550). In particular, the researches highlighted that fully aware of their new educational roles, participants “strove to establish their identity in order to better cultivate their students’ identity formation as Aboriginal peoples’ (p. 551) and “collectively spoke of their spirituality and how it was connected to the land, and how from this relationship their traditional values, belief, and epistemology emerged” (p. 554).

School Demographics

The final sub-theme revealed in our study was that of how the demographics of a school or school district could have impact upon the culture at institutional level. Some studies reported how demographics did not impact the institutional culture of novice teachers. One study of the influences upon induction of novice teachers in Chicago public schools cited how “most school demographics, including poverty, did not appear to influence novices’ experience or future teaching intentions in our analysis” (Kapadia et al., 2007, p. 18). Others (Hagger et al., 2011; Hall & Cajkler, 2008) noted novices’ realization of importance to consider the demographics of their students. Furthermore, mentors were found to be a mitigating factor for novice teachers who needed help in learning about curriculum and students in order to be effective instructional leaders in Californian schools (Fletcher & Barrett, 2004). These researchers found that “most new teachers (95.7%) believed the mentors helped them to work effectively with students from diverse backgrounds” (p. 327).

CHAPTER SUMMARY

Adapting and thriving within diverse cultural contexts can be problematic for new and beginning teachers. Creating a positive working climate impacts upon teachers decisions to continue to remain in a school, school district, and in the teaching profession. It is important for beginning teachers to feel that their philosophy of teaching aligns with their school

culture. This can be facilitated or hindered by an allocated mentor or formal induction program. Socialization with peers is clearly an important mitigating factor that can support a beginning teacher with any contextual challenges in the school and broader community. The role of a mentor is particularly important, both in creating a positive learning culture, and in helping a new or beginning teacher to participate in such a culture. In addition, the efforts of a mentor and or formal induction program can be instrumental in fostering a new or beginning teachers' commitment to their ongoing career and professional development. Being exposed to a culture of diversity in their teaching contributes to a new and beginning teachers' knowledge of diversity issues relevant to their classrooms and facilitates ongoing professional development in these issues. Mentors can be instrumental in guiding this process and helping new and beginning teachers to increase their cultural competence levels.

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CHAPTER 7

PERSONAL AND INDIVIDUAL CONTEXTUAL FACTORS

For the purposes of this research, personal/individual context was defined as referring to the set of current factors that matters and was unique to an individual based on his/her circumstances, interests, characteristics, and experiences. Three overarching themes were seen within personal and individual aspects of induction and mentoring programs, *sense of personal efficacy (for beginning teacher), background prior to teaching, and personal initiative*. From the total of 113 articles examined, 65 sources contributed in various degrees to this theme. Six further sub-themes were then identified within these three overarching themes:

- Professional Competence
- Emotional Intelligence
- Taking initiative
- Quality and structure of mentorship
- Prior skills and experience
- Professional Identity Formation

Each of these themes is detailed in the sections to follow.

Professional Competence

Many of the 65 articles that contributed to the personal and individual themes included evidence of novice teachers reporting a satisfactory or unsatisfactory feeling about their developing professional competence as a teacher. There was some empirical evidence that novice teachers felt pressured to prove their competence to colleagues or administrators in their schools. For example, in a study of novice teachers in Ontario, Canada, one teacher reported "...she felt she had to prove herself by taking on the more challenging teaching assignment without expressing reservations" (Fantilli & McDougall, 2009). Another study examined the development of a model for the induction of new teachers in urban schools in high needs areas in Atlanta, Georgia, USA (Black, Neel, & Benson, 2008). Authors of the report confirmed that second-career teachers faced some tension between what they believed they should do as teachers and the practical decisions they had to make on a daily basis. The researchers' summarized that these novice teachers were just beginning to navigate a pathway between their beliefs and the demands of teaching that many educators confront throughout their careers.

There was also evidence that novice teachers were beginning to move beyond their initial feelings of incompetence, as seen in research examining the role of peer mentoring in the development of beginning secondary science teachers in the USA Midwest. The author described one novice teacher feeling "no longer concerned with being observed because I look forward to the feedback and discussion of how to improve my classroom" (Forbes, 2004, p. 231). In addition, novice teachers noted "participating in peer mentoring served as a confidence-building mechanism ... allowed them to seek out constructive ways to deal with classroom management issues in a supportive, collaborative environment" (p. 232).

Grudnoff (2012) found that emotional support from tutor teacher helped the novice teacher to become much more professionally confident.

Some studies clearly showed novice teachers moving further along in their levels of feeling competent. For example, in a study focused on the perceptions of alternatively prepared first-year teachers in an urban high school (Lambeth & Lashley, 2012), authors found that the support of on-site administrators could facilitate effective teacher development across a school. This was seen to be particularly effective for novice teachers, where the need for growth was significant. For instance, researchers highlighted progress in the development of one novice teacher reported by colleagues and the teacher herself, and "alluded to her tenacity, her emerging sense of happiness in her work, and her growth as a teacher, which they witnessed. She also recognized this aspect in herself, 'I know I have grown a lot'" (p. 45). For another novice teacher in the same school, such growth was instrumental to her continuing with teaching, and had meant that she had "come to understand the students more, no longer wanted to transfer schools, and was visibly much happier in her work. She no longer drove around the block before coming into school and laughingly explained, 'I didn't want to come in'" (p. 45).

Similar descriptions of how being validated by colleagues instigated growth in competence were seen in empirical evidence from a study of 30 beginning teachers in Ontario, Canada (Cherubini, 2009). Cherubini reported numerous occasions when beginning teachers indicated increased confidence because their "professional competence in the classroom and in the school community were validated not only by the autonomy afforded to make their own decisions, but by the fact that such decisions were respected by their colleagues" (p. 190). In the instances when new teacher efficacy and agency were self-reported to be the highest, they credited the nonjudgmental support they received from mentors, school administrators, and induction providers in alleviating some of the challenges.

Emotional Intelligence

A number of studies described the significant role of emotional intelligence among novice teachers, as manifested through self-reflection, reading of others, and recognition and management of stress.

Numerous examples of new teachers engaging in self-reflection emerged from the systematic review. Self-reflection was prompted by different sources both across and within programs. The focus of self-reflection also varied both across and within programs. New teachers engaged in self-reflective practice that was brought on by their experiences with the assigned mentors (Achinstein, 2006; Irinaga-Bistolas, Schalock, Marvin, & Beck, 2007). Mentors assisted new teachers in reflecting on experiences they'd had in order to identify strengths and next steps. In other cases, professional development sessions within schools gave all staff members, including new teachers, an opportunity to self-reflect (Angelides & Mylordou, 2011; Forbes, 2004; Irinaga-Bistolas et al., 2007; Rhodes, Nevill, & Allen, 2005). Wiki pages were also cited by new teachers as a forum that encouraged their self-reflection and stimulated their development as educators (Donne & Lin, 2013).

New teachers engaged in self-reflection that was focused on their practice as educators (Cherubini, Kitchen, & Trudeau, 2009; Donne & Lin, 2013; Irinaga-Bistolos et al., 2007; Yendol-Hoppey, Jacobs, & Dana, 2009). This helped them to identify what had gone well and what areas needed to be rethought for future lessons. Self-reflection was also focused on relationships (Yendol-Hoppey et al., 2009). In this sense, it sometimes involved “one monthly seminar devoted to peer collaboration and reflection [that] allowed [the new teacher] to identify ways in which her behaviour may have facilitated the tense relationship with her administrator and effective strategies to elicit the type of support she expected.” (Forbes, 2004, p. 226). Self-reflection, prompted by various sources, at times also focused on new teachers’ core values and expectations of the profession, where new teachers found themselves wondering about whether or not teaching was the right path for them to take as a career (Achinstein, 2006; Angelides & Mylordou, 2011).

In several cases that reported “reading others,” it was noted that strong mentoring relationships with new and experienced teachers involved partners that were similar to each other, and especially with mentors that could read the feelings of the mentees (Achinstein & Barrett, 2004; Achinstein & Davis, 2014; Fenwick, 2011). In partnerships that featured dissimilar individuals, more negative experiences were reported (Burris, Kitchel, Greiman, & Torres, 2006). Similar partners likely had an easier time reading each other as they could more easily understand how they were feeling without being told explicitly.

Mentoring programs prompted feelings of empathy from mentors for mentees about their own experiences as new teachers. One mentor’s experience was: “...focused more on empathy of what a new teacher feels by recalling that [the mentor] was once a brand new teacher. At the time, she started mentoring she had only completed two full academic calendars in her teaching career. It makes sense that she would remember her first year and have the ability to empathize with the new teachers she mentored in her third year of teaching” (Catapano & Huisman, 2013, p. 268). In a number of cases, mentors shared their experience of judging mentees’ levels of readiness, which helped determine the appropriate level of challenge and/or support mentors could provide mentees (Achinstein & Barrett, 2004; Achinstein & Davis, 2014; Fenwick, 2011). The following examples were provided (Achinstein & Barrett, 2004): “Laura had to carefully read Tina’s readiness to receive feedback and new ideas” (p. 737) and “this mentor struggled with holding back comments when she perceived the new teacher needed to ‘vent’” (p. 740). Use of vignettes and role-playing were cited as suggestions for methods of training mentors in judging mentees’ levels of readiness (Achinstein & Barrett, 2004).

In many studies, new teachers acknowledged feelings of stress (Achinstein & Davis, 2014; Beutel & Spooner-Lane, 2009; Dempsey & Christenson-Foggett, 2011; Fantilli & McDougall, 2009; Helms-Lorenz, Slof, & van de Grift, 2012), isolation and anxiety (Fantilli & McDougall, 2009), and some form of a tense relationship (Forbes, 2004; Grudnoff, 2012; Helms-Lorenz et al., 2012). As a method of supporting new teachers’ growth, mentors noted the importance of: “...recognizing the stresses that first and second year teachers experience” and “giving [a] new teacher the encouragement and support to grow beyond what he/she is doing well to learning how to do some things differently” (Achinstein & Davis, 2014, p. 112). Professional development sessions (Helms-Lorenz et al., 2012) were implemented in different cases in order to help new teachers recognize the negative emotions that can be associated with entry into the profession, and to identify ways to support new teachers in overcoming the negative emotions.

Taking Initiative

Several of the 65 studies reported the taking of initiative by novice teachers, linking this with their developing self-efficacy. In a study that looked at the learning of newly qualified teachers in their first year of teaching in England (Haggarty, Postlethwaite, Diment, & Ellins, 2011), authors reported the benefit felt by the novice teachers of taking their initiative. One teacher explained that initiating a new seating plan with struggling students “enabled him to work specifically with that group whilst the rest of the class got on with something else” and he was able to solve the problem. The novice teacher recalled talking to colleagues about ways to solve this problem, but in the end “the change in seating plan was “something I did myself just because I was sure they were all intelligent enough to get it but thought I hadn’t explained it well enough...so I wanted a second chance” (p. 945).

In some cases, the opportunity for novice teachers to take initiative came about because of the context or particular circumstances of their school. For example, for novice teachers in England who were career changers, the author discovered that the newly qualified teacher (NQT) year was not the same as a ‘normal’ NQT year (Griffiths, 2011). From the start, they were already working in teams, established class management, and developed planned schemes of work. Hence, these teachers had a strong sense of confidence and self-agency for those early in their careers and were moving quickly to full participation in the life of the school. In other instances, novice teachers described examples of their self-efficacy, motivation, and taking initiative in spite of difficult circumstances in their schools. In one study in Ontario, a novice teacher in her second year realized that “this was not the teaching experience she had envisioned but was partly motivated by her drive to succeed and the intrinsic reward of making a difference for many students (Fantilli & McDougall, 2009, p. 822). The teacher clarified how she felt some pressure to push herself without revealing any anxiety to her colleagues and to prove herself by taking on the more challenging teaching assignment without expressing reservations.

Furthermore, novice teachers were seen to be taking their own initiative in a slightly more unintentional way. In a study of five first-year special educational needs teachers in the south-western United States (Gehrke & McCoy, 2007), authors reported how “perhaps unknowingly, each participant in this study provided examples of taking the initiative and using their own creativity to tackle the variety of problems related to acquiring appropriate materials and following special education procedures accurately in each of their settings” (p. 495). Gehrke and McCoy provided another example initiative, whereas a teacher accessed the Internet for instructional materials, borrowed curriculum and materials from the general education setting, and signed up for relevant district professional development opportunities.

Quality and Structure of Mentorship

Many of the 65 studies alluded to the impact of the quality and structure of mentorship upon novice teachers’ experiences. For example, some studies (Birkeland & Feiman-Nemser, 2009; Forbes, 2004; Griffiths, 2011; Nasser-Abu Alhija & Fresko, 2010) reported the impact (either positive or negative) of the availability of willing and experienced mentors. Further studies considered the impact of interactions with mentors on the novice teachers (Abbott, Moran, & Clarke, 2009; Ado, 2013; Bianchini & Cavazos, 2007; Bickmore, Bickmore, & Hart, 2005; Certo, 2005; Grudnoff, 2012; Hagger, Mutton, & Burn, 2011; Richter et al., 2013). The impact of mentors’ prior experience upon the type

of support they provided for new teachers was also mentioned (Abu Rass, 2010; Anderson & Olsen, 2006; Gardiner, 2011). Finally, evidence was seen of the discrepancy between the support provided by the mentor and the support valued or needed by the novice teacher (Andrews & Akerson, 2012; Lambeth & Lashley, 2012; Youngs, 2007).

In a study of the perceptions of 30 new teachers towards their induction program in Ontario, Canada, Cherubini (2009) found that the novice teachers benefitted most when their induction was part of a school culture where professional development were “meaningful endeavours” (p. 185). In particular, in “those instances when new teacher efficacy and agency were self-reported to be the highest, they credited the nonjudgmental support they received from mentors, school administrators, and induction providers in alleviating some of the challenges” (p. 193). In addition to the appeared benefits of non-judgemental support, a study of the experiences of 12 beginning teachers in New Zealand (Grudnoff, 2012) reported that the more emotional support and encouragement the new teachers received from their mentors, the more the novice teachers grew in confidence as teachers.

In a study of 700 beginning teachers in Germany (Richter et al., 2013), researchers studying the extent to which the quality and frequency of mentoring influence teachers professional competence and well-being found that “many mentor teachers evidently provide a learning environment that supports individual learning and development,” however, they clarified that the “mentors who supervise their mentees closely and convey their ideas of teaching to their mentee do not successfully foster beginning teachers’ competence and well-being”(p. 174). Conversely, some studies reported the negative impact of the relationship between novice teacher and their mentor. For example, in a study of schools in eight counties in a state within the United States (Andrews & Akerson, 2012), researchers reported one novice teacher forcefully declaring, “my mentor teacher has been no help” (p. 9). Researchers concluded, “the value of having a mentor teacher depends greatly on the mentor,” and further explained how the “disparity between administrator responses and teacher responses may indicate a problem related to perceptions” (p. 10).

An example of how the prior background of mentors impacted upon the mentoring relationship with novice teachers can be seen in a study that explored six first-year urban novice teachers in one USA state (Gardiner, 2012). Seeking to understand the characteristics of “mentored induction (called coaching)” (p. 195), the author described how “...new teachers believed that coaches prior experiences in high-poverty urban schools and in similar grade levels meant they had a more nuanced lens for helping new teachers understand classroom experiences and provide contextually responsive instructional support” (p. 208). The value of the mentor having empathy with novice teachers due to their prior experience of teaching within similar contexts was highlighted by the study participants’ who indicated that when their coach came in to observe their instruction they became “another set of eyes” that helped provide a “clearer” or “more objective” view of students and instruction (p. 208). As one novice teacher explained: “I want her to look for areas of improvement. With your coach, you’ve got two sets of eyes, yours and hers. Then you talk about what you see and what she sees and that’s very powerful...So much I wouldn’t have thought of or picked up without years in the business” (p. 208).

The discrepancy between the support provided by the mentor and the support valued or needed by the novice teacher, though not seen widely across the 65 articles, were somewhat problematic in the articles where they were mentioned. One study examined the variations in district policy and their association with differences in nature and quality of instructional assistance experienced by novice teachers in two urban high-poverty Connecticut schools districts (Youngs, 2007). The researcher found that “the lack of close matches between these mentors and their mentees with regard to teaching assignment meant they [the mentors] had only partial knowledge of the curricula that Gentry and Esteban [the novice teachers] were trying to teach” (p. 816). The researcher highlighted how for one particular novice teacher, [the mentor] “demonstrated little apparent understanding of the process by which new teachers learn to construct and apply pedagogical content knowledge” (p. 816). The approach taken by the mentor was reported to contribute to a very challenging and difficult experience for the novice teacher in his first year of teaching. The researcher clarified how by the February, the novice teacher had started to actively seek teaching positions outside of this school district, and he had by June, accepted a position in another school district. The researcher concluded from the data collected that “differences in the quality of induction support.... seemed related to variations in district policy related to mentor selection and assignment, and mentors', principals' and other educators' understandings of induction” (p. 817).

Prior Skills and Experience

In an examination of public schools in Chicago, authors' presented empirical evidence that spoke to the influences of induction programs upon retaining novice teachers (Kapadia, Coca, & Easton, 2007). Seventy three percent of 1737 novice teachers (elementary and high school teachers, with less than three years of teaching experience) responded to a range of questions to assess the quality of their teaching experience, their intent to continue to teach, and their plans on remaining in the same school for the subsequent year. As the authors reported, their analysis “showed that factors relating to teacher background and preparation particularly matter to novices working in elementary schools” (p. 16). The authors explained, “novice teachers with prior work experience in a field other than teaching are more likely to report a good teaching experience, intend to continue teaching, and plan to remain in the same school” (p. 38). The authors concluded that prior work experience might provide tools to for the novice teacher to comfortably negotiate new and unfamiliar work environments, or the maturity to deal with transition into a new fields and careers. In particular, prior experience might also “assist new teachers in establishing themselves as an authority figure in the classroom and better handling the challenges of classroom management” (p. 38), both considered as inevitable challenges for beginning teachers.

Gardiner (2012) examined how six first-year teachers experienced the support offered by their two induction mentors, and how such support contributed to the novice teachers' professional learning. The author found that the mentors' prior experience of teaching strongly influenced how they approached supporting the novice teachers. In particular, the researcher described how “...new teachers believed that coaches prior experiences in high-poverty urban schools and in similar grade levels meant they had a more nuanced lens for helping new teachers understand classroom experiences and provide contextually responsive instructional support.” (p. 208). One study in our sample examined the perceptions of alternatively prepared first-year teachers in urban high schools in a state within the US (Lambeth & Lashley, 2012). Researchers reported how the participants in the

study brought a wide range of life and career experiences to the teaching profession. In addition, researchers commented how though “many of the teachers are also parents and are used to dealing with children,” they faced having to deal with “situations they were not prepared or indeed trained for” (p. 47).

Other authors, recognizing previous research, acknowledged that many mentoring programs fail to foster professional learning, and indicated that both prior urban experience and similar grade-level experience needed to be a requisite to obtain a coaching position for the mentors (Gardiner, 2012). In a different study, Gardiner (2011) reporting the experiences of eight new urban teachers in a metropolitan mid-west educational system in the United States, agreed how “despite a belief that “good teaching is good teaching,” they [the mentors] emphasized the importance of urban experience and contextual knowledge of students living in poverty. Echoing her colleagues, one mentor stated, “If a coach has not worked in the city, it’s a big detriment” (p. 366).

In an exploration of the school contexts and cultural/professional roles of new teachers of Mexican descent (Achinstein & Ogawa, 2011), authors revealed that the novice teachers’ commitments were fuelled by early personal and professional experiences. Two of the novice teachers succeeded academically “despite attending schools that presented few educational opportunities and depreciated the cultural resources of students from non-dominant communities” (p. 2535). In addition, both of these novice teachers were “inspired by teachers who served as role models and motivated them to do the same for their students” (p. 2536). The authors acknowledged how both novice teachers had graduated from their teacher education programs with “strong social justice orientations and coursework that encouraged and [supported culturally and linguistically responsive teaching] CLRT” (p. 2536). In New Zealand, a study exploring newly qualified novice teachers’ accounts of their induction (Anthony, Haigh, & Kane, 2011), researchers relayed participants’ belief that the “significant presence of change-of career teachers (p. 68) in our cohort provided instances of how prior occupational experiences and skills (e.g., familiarity with ICT, administration, working with teams, and presentation skills) affected issues of fit [within their schools].” In particular, novice teachers recounted how “being able to draw on prior work experiences and expertise affirmed their identity and sense of worth as [newly qualified teachers] NQTs (p. 865).

Finally, a study of the Graduate Teacher Program (GTP) in England [a school-based initial teacher training program] (Griffiths, 2011), reinforced how previous work experience impacted upon 45 novice teachers in the initial stages of their career. The author highlighted how the “ability to transfer existing skills to a new context, which is vital for work-based learning, may be particularly important for pre-service teachers on an employment-based route.”

Professional Identity Formation

The final sub-theme of professional identity formation within the personal and individual category was seen in two articles. In a study situated in a small urban high school in and East Coast urban areas of the United States (Ado, 2013), the researcher reported how findings from her study revealed “that the intersection between the school context and early career teachers’ expectations about teaching were highly influential to the experiences that they had over their first few years in the classroom and that these intersections shaped their future career intentions differently, even in this successful urban

school” (pp. 147-148). In their national longitudinal study of newly qualified teachers accounts of induction in New Zealand, Anthony et al. (2011) further explained how “the ability to ‘fit’ into the new context is an important consideration in terms of identity formation, and job satisfaction” (p. 865). For these novice teachers, issues of fit were “mediated by their dispositions to learning, partly related to their histories and lived experiences” (p. 865), and partly related to differences in the nature of work determined by the workplace environment and learning opportunities. In a Scottish context, Shanks, Robson, and Gray (2012) argued that rather than fitting the new teacher into existing arrangements, schools must tailor induction year experiences by recognizing the new teachers’ individual learning dispositions, namely their learning biography and attitude towards, and engagement with, learning opportunities.

CHAPTER SUMMARY

The levels of professional competence felt by a beginning or new teacher can be facilitated through formal induction and appropriate mentoring. The role of administration and support of colleagues is instrumental in creating a positive learning climate that nurtures and deepens professional competence. Levels of emotional intelligence also contribute to new and beginning teachers sense of well being, and allows them to co-develop coping strategies with mentors that respond to the contextual challenges of their particular school and district. How comfortable a new or beginning teacher is to take initiative also corresponds with how well they manage contextual challenges in their teaching practice. The quality and structure of any mentoring relationships can significantly influence the induction period and facilitate the new or beginning teachers levels of feeling professionally competent. This is further aided when a mentor recognizes and utilizes any prior skills and knowledge a new or beginning teacher may possess. All of these facets contribute to a new or beginning teacher forming a professional identify of themselves as effective educators that have much to contribute to the teaching profession.

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CHAPTER 8

ORGANIZATIONAL CONTEXTUAL FACTORS

For the purposes of this research, organizational context was defined as the dimensions represented in and shaped by the structure, size, functions, and nature of organization within which a group of people works together to achieve specific goals. Organizational context is also an “operating environment” determined by the internal characteristics of the organization and external orientations of the organization. In total, 102 sources contributed to the topic of organizational contextual factors.

Within this category, several themes captured aspects of induction and mentoring programs. These themes included the (1) impact of the programmatic elements, (2) structural conditions that influence the induction and mentoring program context, (3) administration leadership, (4) teacher leadership, and (5) facility conditions. These themes encompassed direct and indirect references to the elements of support outlined in the literature, as well as to the varying roles contributed by mentors, beginning teachers, teaching staff and the structural conditions of the context. Most sources examined contributed in varying degrees to these themes, and within them four sub-themes emerged:

- Multiple elements to beginning teacher induction and mentoring programs
- Mentoring as the most widely discussed program element
- Importance of selecting program elements to match new teacher needs
- Beginning teachers feeling supported as an indicator of success

As noted earlier, although administrative contextual factors were envisioned as a theme of the organizational category, the findings revealed that administrative contextual factors stand alone in nature and importance of role in induction and mentorship programs. As a result this factor is presented in a subsequent chapter as a separate factor category).

Multiple Elements to Beginning Teacher Induction and Mentoring Programs

The literature revealed that beginning teacher induction and mentoring programs are predominately composed of multiple elements. As found by Glazerman et al. (2008):

Comprehensive induction programs included carefully selected and trained full-time mentors; a curriculum of intensive and structured support for beginning teachers; a focus on instructions, with opportunities for novice teachers to observe experienced teachers; formative assessment tools that permit evaluation of practice on an ongoing basis and require observations and constructive feedback; and outreach to district and school-based administrators to educate them about program goals and to garner their systemic support for the program. (p. 1)

The literature focused on the viability of the elements in relation to the specific context and needs of the beginning teacher and how supporting factors have an influence on the elements. As stated in one article (Gaikhorst, Beishuizen, Korstjens, & Volman, 2014, p. 31), “all of the schools undertook various support activities for their beginning teachers.

However, the extent to which these activities were performed consistently and conscientiously was different.”

The main emphasis throughout the studies was on consideration of a new teachers’ need for socialization, via mentoring or other collaborative opportunities. The opportunity to observe fellow teachers was seen to be of significant value by beginning teachers. Forbes (2004) posited, “observing the implementation of common curricular elements by other teachers, discussing aspects of the curriculum and using these interactions as a framework for reflection provided her with the opportunity to visualize new ways to structure her own courses” (p. 226). Another option for collaboration seen to be beneficial in supporting beginning teachers was through online mentoring, support through a website, learning management system, or wiki that involved asynchronous communication (Suk Hwang & Vrongistinos, 2012). As outlined by Bell-Robertson (2013), “[the wiki] was meant to serve as a place where [new teachers] could interact with one another and carry on virtual conversations between two or more community members”(p. 436). The virtual aspect facilitated induction supports for beginning teachers who were geographically distant from mentors and other teaching networks.

While multiple overarching programmatic elements were reported as effective, the breakdown of structures of programmatic elements revealed areas of possible ineffectiveness. More specifically, to have the support be perceived as beneficial, adequate structural supports are crucial. As described by Cherubini (2009), “support systems and the induction program infrastructure itself needs to be well expressed and communicated to not only new teachers, but to mentors, administrators, board personnel, and school faculties in a high degree of clarity and specificity” (p. 192). The lack of structure meant that although the element existed, not always was it realized in the intended manner. Explicitly discussed, was the need for a person to be assigned to clearly communicate the structure and expectations to all participants, including beginning teachers, mentors, and staff. Birkeland and Feiman-Nemser (2009) described the importance of the role as: “the schools that made the most progress in developing comprehensive and school-wide systems of induction were those that assigned a skilled and well-respected faculty member to the role of induction leader...structural supports will fall flat unless embedded in a professional culture that values collegial collaboration” (p. 71).

How multiple program elements impacted upon beginning teachers’ workload also contributed to the negative perceptions of program elements. Carter and Keiler (2009) noted, “part of the teachers’ responsibility became managing both the interactions with the multiple mentors and the time this required” (p. 450). Likewise, another study found that the naturally increased workload of a new teacher meant that they were spending more time at work and therefore, more time in an environment where they can ask questions to colleagues (Nasser-Abu Alhija & Fresko, 2010).

Mentoring as the Most Widely Discussed Program Element

While many induction and mentoring program supports for beginning teachers were reported, the most frequently discussed element was mentoring. Highlighted in this sub-theme were the multiple forms for the mentoring relationship, and the role of the mentor that included their level of training, attitude, and accessibility.

Mentoring involved engaging in a planned or informal relationship whereby a more experienced teacher supports the beginning teacher one-on-one. Implicitly and explicitly discussed was that the success of the mentoring relationship was driven by how involved, reliable, and accessible the mentor was to the new teacher. One participant in a study by Castro, Kelly, and Shih (2010) described how she remembered “seeing her mentor only once, when she came she told me everything like in ten minutes” (p. 624). In contrast, Gardiner (2011) positively described how “new teachers stated that no matter how badly something ‘flopped,’ their coach was ‘in their corner,’ and ready to help them to not only feel better, but also analyze, interpret, and grow professionally from that experience” (p. 370). Ultimately, as stated by Kapadia, Coca, and Easton (2007), “when novices receive high levels of mentoring and high levels of support, the likelihood of their reporting a good teaching experience increases, as do the changes that they plan to remain in the same school” (p. 39). Such commitment outlined that strengthening the relationship on trust and commitment allows for authentic learning and the ability “to gain insight into their own practice while helping someone else” (Catapano & Huisman, 2013, p. 269).

Importance of Selecting Program Elements to Match New Teacher Needs

The biggest factor influencing the perceived outcomes of an induction and mentoring program was the necessity to have the program elements be customized to match new teacher needs, particularly for alternatively certified teachers and teachers who were geographically distant from other teaching staff. Unruh and Holt (2010) argued that beginning teacher support programs should take into consideration the unique needs of alternative-entry teachers because of their previous experiences and expectations. Alkins, Banks-Santilli, Elliott, Guttenberg, and Kamii (2006) found that new teachers explicitly required specific development based on their needs and subject matter; however, sufficient release time was not always allotted in a beginning teachers schedule. Irinaga-Bistolas, Schalock, Marvin, and Beck (2007) described the full extent of the time and financial commitment needed to fully meet the needs of the beginning teachers, that includes not only time for beginning teachers and mentors to meet, but time needed for observations and to attend professional development seminars. To counter these commonly-noted concerns, Irinaga-Bistolas et al. discussed how they restructured their induction support to allow for smaller groups of beginning teacher and mentor meetings, the development of a website to support communication, and the completion of a needs assessment by beginning teachers to ensure applicability of the professional development and mentoring supports. Similarly, other studies have discussed the importance of streamlining teacher induction programs to meet the needs of beginning teachers in specific teaching areas like music (Bell-Robertson, 2013; Conway, 2006, 2012) and agriculture (Burris & Keller, 2008; Burris, Kitchel, Greiman, & Torres, 2006).

A typical response to this problem in various studies beyond reconfiguring the induction support was for beginning teachers to create a network of individuals that serve as informal mentors or “adopted mentors” when an official mentor was lacking or not available. Ultimately, informal mentors were perceived as being crucial for the survival of the beginning teacher during situations where just-in-time support was required. When selecting a program element to suit beginning teacher needs, several studies directly or indirectly noted the importance of the beginning teachers’ willingness and perceived value in the learning to participate in the program elements. Gellert and Gonzalez (2011) highlighted how “throughout her second year, [one novice teacher] regularly referred to

her notes/lesson plans from the professional development” (p. 21) and some “beginning teachers expressed a desire to emulate those leading educators who furthered their own learning” (p. 7).

Beginning Teachers Feeling Supported as an Indicator of Success

The final sub-theme that emerged in the literature was that the success of program and mentoring elements are all contingent upon being in a supportive community that welcomes new teachers. This sub-theme included discussions of mentor and staff availability, sense of belonging in a supportive environment, beginning teachers being allotted a sufficient time to focus on their needs, and the longevity of the support.

As outlined in the adoption of an informal mentor, the studies examined highlighted how important it is to have support available to them when they need it most. Coupled with being available was the importance of having ample time to frequently engage in discussions with beginning teachers in order to address their needs at a deeper level.

Contributing to the perceived feeling of being an outsider, the beginning teachers examined in the literature indicated that they desire to sense belonging as a member of the school community and feel ongoing support from colleagues. As shared by one participant in a study by Alharbi and Kinchin (2012, p. 230), a teacher “pointed out that he sometimes did not feel supported in his setting. He shared his story about his head teacher who, in his opinion, didn’t support the strategies he was using related to achievement rewards within his teaching.”

CHAPTER SUMMARY

This chapter highlighted the significance of program structure and elements as an impact on new and beginning teacher induction. New and beginning teachers benefit from purposeful support programs delivered face-to-face and online. Critical to the success of the program is the level of specific effort put forth by a dedicated induction program leader. Frequent and timely mentoring that is customized to new teacher needs supports new and beginning teachers’ acquisition of contextual aspects of their role, whereas informal mentoring provides new and beginning teachers with subject-specific supports.

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CHAPTER 9

ADMINISTRATIVE CONTEXTUAL FACTORS

Widely discussed within the organizational category was the *administrators' role in beginning teacher induction and mentoring programs*. This theme encompassed direct or indirect references to the formal or informal involvement of in-school or building-level administrators (principals/head teachers and vice/assistant principals) in teacher induction and/or mentoring programs for beginning teachers. Although these factors are directly linked to the organizational contextual factors, findings were thought to warrant a standalone status and an important role in induction and mentorship programs.

Over 40 sources contributed in varying degrees to this theme. Findings from this theme, are presented below within four emergent subthemes:

- Duties and Responsibilities for Beginning Teacher Support
- Types and Formats of Support
- Impact and Outcomes of School Administrators' Involvement
- Leadership and Commitment

Duties and Responsibilities for Beginning Teacher Support

This subtheme included discussions of the general responsibility of school leaders for the development of novice teachers and detailed descriptions of various duties and tasks related to school administrators' involvement in the provision of support for these educators.

Implicitly and explicitly, the majority of the sources indicated that school administrators have an overall responsibility for supporting beginning teachers' personal and professional development due to their overall leadership responsibility of teacher development and support in their schools.

This responsibility was directly related to the need of school administrators to be informed about the needs of novice teachers and various supportive structures and programs available to them (Rhodes, Nevill, & Allen, 2005). In a study out of Cyprus, principals were kept up to date about the program in order to offer support and protection to teachers who participated in the program, thus ensuring that this will actively contribute to the efforts of reshaping school cultures (Angelides & Mylordou, 2011). In addition, embedded within the overall responsibility of administrators was the need to address specific contextual expectations for teachers through the support and learning opportunities (Ado, 2013; Greiman, Walker, & Birkenholz, 2005).

Principals were seen as responsible for clear communication regarding various expectations for beginning teachers (Greiman et al., 2005). As was also evident from the literature, the onus to be informed and up-to-date about the beginning teachers' development was not only on the school administrators. Achinstein (2006) highlighted the importance for beginning teachers to also understand and be aware of the overall role of

school principal for teacher development, as well as his/her position in relation to beginning teachers' support within the broader context of schooling.

Various formal and informal duties of school administrators were discussed in the reviewed literature, varying from informal interactions with the beginning teachers to scheduled formal meetings and teacher supervision.

Assignment of mentors to beginning teachers was the most widely detailed aspect of school administrator's role in teacher induction and mentoring processes (Abu Rass, 2010; Bianchini & Brenner, 2009; Bianchini & Cavazos, 2007; Bickmore, Bickmore, & Hart, 2005; Fantilli & McDougall, 2009). Several studies offered suggestions as to the guidelines for mentor nomination and assignment. First, a study suggested that it would be beneficial for newcomers to the profession if administrators played a more active role in selecting a pool of qualified mentors from which new teachers can select to work with (Fantilli & McDougall, 2009). Bickmore et al. (2005) found that matching mentors and mentees in the same content area was beneficial. Others recommended that mentors and mentees be matched based on close proximity, similar teaching assignments, opportunities for common meeting times, and a match in gender, age, teaching philosophies, and complimentary personality types (Abu Rass, 2010). Careful and thoughtful approach to mentor assignment was deemed important. As found in the US study of beginning and mentor agriculture teachers' perceptions of psychosocial assistance, similarities, and satisfaction, mentors and induction teachers with similar values, attitudes, working styles, and teaching philosophies were more likely to have a positive mentoring experience, successful relationship, and satisfactory interaction (Burris, Kitchel, Greiman, & Torres, 2006). These authors posited that this finding implies the importance of similarity when selecting dyad partners, and presents administrators and mentoring program coordinators with the challenge of making a mentorship dyad assignment before the two participants have met and established a rating of similarity.

Development and implementation of mentor training programs in school was one of the ways to enhance the mentoring experiences of beginning teachers. For example, in a study within the rural Australian context, the principal and the Deputy Principal initiated a mentor training for experienced teachers so that they could provide "informed professional support and guidance to the beginning teachers where necessary" (Beutel & Spooner-Lane, 2009, p. 352). Within an induction program for rural US special educators (Irinaga-Bistolas, Schalock, Marvin, & Beck, 2007), professional development goals within the mentor partnership were identified based on a self-assessment and an implementation plan was developed to guide the partnership. In addition, along with the training, mentors in this study received on-going support through the dissemination of information through the special website and listserv on topics such as: understanding adult learners, using effective communication skills, mentoring stages, and problem solving in the mentor partnership (Irinaga-Bistolas et al., 2007, p. 14). Based on their study of formal and informal mentoring programs, Desimone et al. (2013) recommended increasing formal mentor training in order to maximize the potential of their role. Harrison, Lawson, and Wortley (2005) argued for tailored mentor training that can assist in developing critical reflective practice and a new teacher's increasing professional autonomy.

Widely mentioned in the literature was the key role of school administrators in ensuring that beginning teachers are provided with mentoring, time to observe each other, and opportunities to reflect on practice. Several authors argued that it is crucial for school-level administrators to set aside more time for mentoring, planning for instruction, observations, discussion of student achievement, and feedback (Catapano & Huisman, 2013; Certo, 2005). In a US-based study, peer observation was deemed by beginning teachers in as highest valued support (Andrews, Gilbert, & Martin, 2007). However, as these researchers noted, there was a noticeable discrepancy in perceptions; whereas a fairly low percentage of new teachers responded that they were given opportunities to observe other teachers, a high percentage of administrators said this support was provided for their new teachers.

One of the duties was implementation of policy or program aimed at supporting of beginning teachers (Glazerman et al., 2008; Hellsten, Prytula, Ebanks, & Lai, 2009). Decentralized mentorship policies were implemented at the school level at the discretion of the principal.

Besides the supportive role of school administrators, several studies highlighted the expectations of school principals to supervise and evaluate the work of the new teachers. (Abu Rass, 2010; Chatlain & Noonan, 2005). Related to the administrators' evaluative role was the duty to maintain confidentiality. For example, in a study of two US-based programs, mentors were strongly cautioned against sharing specific information with principals that could affect the beginning teachers' job evaluations and compromise confidentiality and openness in the mentor/mentee relationship (Glazerman et al., 2008).

Types and Format of Support

Literature revealed that principals played an important role in teacher induction and mentoring program implementation through the provision of various types of support to the beginning teachers. The resources included assigning experienced teachers to help novices (Sabar, 2004), provision of shared in-school planning time and allocation of scheduled planning days into the calendar for beginning teachers to observe other teachers, to attend workshops, to develop units and lessons, and to try out new software or other technology available at the district level (Clausen, 2007). Other forms of principals' support included bi-monthly and monthly meetings with new teachers and mentors, regular professional development for new teachers in addition to professional development activities for the entire staff, and in-school and district wide orientation activities for new teachers (Bickmore et al., 2005).

In some cases, studies mentioned a lack of resources and supplies in school (Bang & Luft, 2013) and differential access to resources by beginning teachers in multiple-teacher programs as opposed to single-teacher programs (Burriss & Keller, 2008). In such instances, advocating for resources represented another important form of help-seeking among beginning teachers who utilised colleagues and administrators as resources for overcoming obstacles (Castro, Kelly, & Shih, 2010). In this study, if the school administration did not provide or promised to and not provided resources, beginning teachers went higher up the chain of command. As noted, one of the teachers, after researching the legal issues associated with special education, presented her findings and the legal issues to her school level administration, and was able to receive support in the form of two additional teacher aids to assist her at various times during the day (Castro et al., 2010). As

evidenced from a study of the support structures for mathematics and science teachers in one of the US states, administrative support was one of two most frequently described sources of support (Friedrichsen, Chval, & Teuscher, 2007). In this study participants sought out their administrators to help resolve conflicts with individual students and/or parents, and viewed their principals more as problem solvers, rather than curriculum consultants or teaching mentors.

Another form of support gleaned from the literature was in the form of principals' attendance of the initial orientation for administrators or professional development sessions specifically designed for administrators (Glazerman et al., 2008). These events had intended to gain administrators' support for their beginning teachers' participation in the induction program and for the involvement of the mentor assigned to their school. The orientation events also provided brief overviews of beginning teachers' needs for support and development and the induction program's purposes and activities. These efforts were also aimed at minimizing conflicts that could impede mentors' efforts to schedule time with beginning teachers.

In rare instances, the school administrator provided direct mentoring to the beginning teacher. For example, Tillman (2005, p. 264) found that one "teacher's indecisiveness provided an opportunity for the principal to personally mentor her by encouraging her, implementing support structures, and reducing the isolation she felt."

Impact and Outcome

Several of the reviewed studies provided empirical data on the direct and indirect impact of school administrator on the effective outcomes of teacher induction and mentoring programs and ultimately, teacher retention and development.

In one of the studies, the findings emphasized the importance of school administrators' active and positive support for the induction program. Glazerman et al. (2008) noted that schools and districts evidenced wide variation in the level of principal support, ranging from principals who were extremely supportive, actively encouraging teachers to make the most of the induction opportunities, to principals who actively resisted participation and would not permit teachers to be released for program activities.

Further exploration of the impact of principals' involvement in the program and support for beginning teachers revealed two subthemes. Detailed below are the descriptions gleaned from the literature of positive impact based on the provision of support and the negative impact if there is a lack of support.

Provision of support

A number of studies reported that school administrators' support was found to be helpful by beginning teachers (Achinstein & Ogawa, 2011; Kapadia, Coca, & Easton, 2007; Rhodes et al., 2005). However, it is important to note that this appreciation for principals' assistance was usually discussed as part of an eclectic supportive system consisting of program providers, administrators, mentors, and colleagues. More specifically, actions perceived as helpful by beginning teachers in various studies encompassed warm welcome and orientation to the school (Sabar, 2004), encouragement (Abbott, Moran, & Clarke, 2009; Kapadia et al., 2007), informal interactions and formal meetings with principals (Chatlain & Noonan, 2005), instructional support (Achinstein & Barrett, 2004; Cherubini,

2007). In another study, mentors and new teachers indicated that people — mentors, interdisciplinary teams, and administrators — had greater positive influence in the induction of new teachers than activities (Bickmore et al., 2005). Main (2008, p. 126) found that beginning teachers who believed that “the principal, deputy principal, and other teachers are improving their teaching in the context of a high-quality induction programme in which the principal holds the tutor teacher accountable are more likely to report that their induction was useful and pedagogically oriented. They also reported higher levels of efficacy and satisfaction.” Kapadia et al. (2007, p. 30) reported three supports that had the greatest influence on new elementary school teachers and made them more likely to report a good teaching experience and intention to remain in the same school: “encouragement and assistance from their principal, regularly scheduled opportunities to collaborate with peers in the same field, and participation in a network of teachers”. In another study, participants mentioned they needed help and support from the administrator and other sources in order to respond successfully to critical incidents at the school” (Lambeth & Lashley, 2012, p. 47).

Exploring the personal needs support function of principals for new teachers in the US context, found that novice teachers viewed principals as key to establishing personal needs of respect, belonging, self-esteem, confidence and autonomy (Bickmore & Bickmore, 2010). In this study, principals' specific actions positively impact new teachers' perceptions of having these needs met. Similarly, Bloëmeke and Klein (2013) examined the effects of school management and teacher support on teaching quality in Germany as perceived by middle school mathematics teachers in their third year in the profession. They found that beginning teachers positively rated the school principals' support and the quality of school management. All indicators of teaching quality improved if the teachers perceived more autonomy and more frequent appraisal. They concluded that principals have a key role in providing high-quality management through administrative leadership and a climate of trust if they want to support their teachers in terms of autonomy and appraisal. Overall, these authors argued “principals have a crucial role in all respects if the quality of a school's environment is to be improved” (Bloëmeke & Klein, 2013, p. 1044).

Cherubini (2009) found that school administrators and school cultures that were perceived as favouring the principled practices of the board's induction program were equally influential on beginning teachers' responses. The author indicated that the intentional directedness of principals' partiality for the induction program, as perceived by participants themselves in sustaining school cultures, was affected the meanings attributed to programs by beginning teachers (Cherubini, 2009). Similarly, findings of a study that sought to determine the relationship between the presence of administrator-facilitated support for mentoring and perceived helpfulness of mentoring suggested that novice teachers perceive their experiences with mentors as more likely to occur and more helpful when administrative support is built into the mentoring program (Clark & Byrnes, 2012). Another finding from this study suggests that if an administrator needs to choose between different forms of support (i.e., common planning time and release time for observation), common planning time is the more important administrator-facilitated type of mentoring support to provide.

Lack of support

In contrast to positive impacts described in studies where teachers received supports from school administrators, a number of the studies indicated negative outcomes of principals'

perceived lack of involvement or provision of support. For example, researchers noted that new teachers rarely found curriculum support from their administrators as departments rarely had an administrator in their own field (Carter & Keiler, 2009). Similarly, Morris and Morris (2013) discussed overall perceptions of principals' lack of communication, lack of assistance in improving student behaviour, and lack of sufficient resources in support of beginning teachers. In other cases, novice teachers described situations where their administrators failed to provide support during student conflicts or disagreed with the participant's teaching philosophy (Friedrichsen et al., 2007), made decisions that surely impinged upon their professional development and emotional well-being (Brindley & Parker, 2010), or failed to fulfil or satisfy beginning teacher's personal needs (Haigh & Anthony, 2012). Frels, Zientek, and Onwuegbuzie (2013) noted feelings of frustration and isolation in beginning teachers who wanted administration to "make more effort to talk to the new teachers, ask how everything is going, offer advice and support" (p. 47).

In one Canadian study, Cherubini (2009) found that the principals' frames of reference for what constituted meaningful induction services often influenced beginning teachers' perceptions. In a number of cases, participants sensed a genuine disconnect between the importance of the induction program as it was communicated by the board personnel, and the lack of preference that principals had attributed to it at the local school level. Furthermore, the negative impact was amplified by the perceptions of novice teachers being at the bottom of the totem pole when they observed principal's arbitrary modifications to the induction program schedule by reducing of the structured time that the induction program offered protégés at the expense of other school priorities (Cherubini, 2009).

Leadership and Commitment

Finally, results of our systematic review pointed out the significance of school administrators' leadership and commitment to the program if teacher induction and mentoring programs are to succeed.

First of all, principals' commitment to and recognition of the program may positively or negatively influence the beginning teachers' justification of their own commitment to and understanding of the need for the program (Cherubini, 2009). As Birkeland and Feiman-Nemser (2009) noted, the success of a school-based induction program relies on the commitment and investment of school leaders. As found by these authors, those leaders who believed that a serious effort to address new teachers' needs could be a vehicle for addressing teachers' professional learning, generally, worked to integrate induction supports into the life of the entire school. They strove to develop a supportive professional culture by fostering a school-wide appreciation that learning to teach well takes time and promoting the idea that the entire school is responsible for helping new teachers succeed; educated board members and parents about the importance of helping new teachers develop their practice; prioritized induction activities in the budget (such as protected time for mentors and new teachers to meet and release time for induction leaders). They concluded that without their support, the programs could not have been successful (Birkeland & Feiman-Nemser, 2009). Furthermore, Wynn, Carboni, and Patall (2007, p. 222) highlighted the importance of principal leadership, finding that "teachers who were more satisfied with the principal leadership in their schools were more likely to report planning to stay in the school district and at their school site."

Administrative and structural leadership was deemed important for the success of the induction programs in various settings and geographical locations. For example, such practices of principals as active engagement in conjunction with quality interactions were deemed integral to not only keeping special education teachers in the field but also cultivating their successes (Correa & Wagner, 2011). Early career special educators within rural schools settings have also stressed the importance of collegial support from school administration and colleagues who are “available to answer questions and acculturate them into the culture, community and procedures of the school” (Irinaga-Bistolas et al., 2007, p. 21). Similarly, Kono (2012) argued that school administrators can create meaningful teacher induction programs that incorporate diverse and unique features to help new teachers adjust to their new rural schools.

Cherian and Daniel (2008) outlined a number of roles for the school principal as related to teacher induction with the recognition of the collective responsibility for induction. The principal plays a vital role in creating supports for the induction process by focusing on structure, strategy, environment, implementation, experimentation, and adaptation. In addition, principals are called upon to manage the political issues that affected power relationships and status. Finally, although the notion of instructional leadership was important the participating principals, their educational leadership roles was often reduced to management of people, budgets, and behavior (teachers’ and students’). They concluded that administrators’ role in the induction program is imbued with strong tensions between personal intentions, individual politics, and contradicting institutional objectives (Cherian & Daniel, 2008).

CHAPTER SUMMARY

This chapter highlighted the significance of school administrator engagement in the organization, development, and sustenance of teacher induction and mentoring programs. Our review of the literature showed several themes that pertained to school administrators’ duties and responsibilities; types and formats of support for beginning teachers; the overall impact and outcomes of principal engagement; and the importance of principals’ leadership and commitment for the success of teacher induction and mentoring programs. Solidifying teachers’ success is the integral role of administrators in supporting, planning, and interacting with cultural and programmatic elements.

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CHAPTER 10

DISCUSSION OF REVIEW FINDINGS

Research Question 1: Nations and Regions Detailing Programs of Support For Beginning Teachers

Our review sought to establish an international perspective of induction and mentorship programs for beginning teachers. We acknowledge that some previously completed literature reviews purport to be international in scope (e.g., Hobson, Ashby, Malderez, & Tomlinson, 2009), however they are somewhat limited in range, and are largely focused on English speaking nations (e.g., United States, United Kingdom, Canada, New Zealand, and Australia). Therefore, we extended our systematic review to capture perspectives from as many nations as possible. In total, 14 different nations are represented; the full list of which can be found in appendix E. Studies from other nations (e.g., Malta, France, and Brazil) were obtained through our searching strategy, indicating an extensive range of international support for beginning teachers. However, some of these studies were excluded from our final sample, as they did not meet the particular search criteria of our systematic review.

Many of the studies in our final sample (64 out of 113) were from the United States, and in total, 97 out of 113 studies were from English speaking nations (United States, United Kingdom, Canada, Australia, and New Zealand). This perhaps makes sense given our search for articles written in English, however, we would suggest further research is desirable to establish whether there is any correlation between where studies are undertaken and with where induction and mentorship programs are located.

The findings of our systematic review suggest there are many commonalities shared by beginning teachers across different geographic locations. For example, being provided with emotional support from peers was seen to be of value in many or the articles regardless of their geographic location. Similarly, mentors were cited numerous times as being the mitigating factor for socializing beginning teachers into their teaching roles, schools, and school districts, regardless of where teachers were located geographically. Feeling isolated was a feeling shared by many beginning teachers irrespective of being placed in an urban or rural school, and regardless of their different jurisdictions.

Though our review found that many of the reported challenges faced by beginning teachers did not vary significantly across different regions, there were localized contextual challenges that are important to recognize. For example, political contextual factors were very nation, state, and region specific. Though much of the content of individual programs for beginning teachers is often very similar, the underlying rationale and the micro-politics of where the program is located is varied and often presents beginning teachers with individualized tensions and concerns. This was also noticed in other literature reviews; for instance, Long et al. (2012) highlighted how tensions could vary within a single school district, and Totterdell, Woodroffe, Bubb, and Hanrahan (2004) explained that a “rogue school” which fails to implement induction properly and subsequently exploits beginning teachers in some way has significant negative impact upon beginning teachers.

Research Question 2: Contextual Factors Affecting the Experiences of Beginning Teachers Evidenced through International Research

A number of contextual factors emerged from our review that had an impact on the experiences of new teachers during the induction and mentoring process. Our review found the following contextual factors to be of importance: social (e.g., different types peer relationships and external community relationships); political (e.g., initiatives at the national/federal, state/provincial, district, and school levels); cultural (e.g., localized and school cultures, issues of diversity); and, personal/individual (e.g., personal and individual concerns, self-efficacy, and emotional intelligence). In the following section of this chapter we reflect upon our findings within these four overarching sets of contextual factors and discuss how each affects the experiences of beginning teachers in an international context.

Social contextual factors

As noted by Achinstein and Ogawa (2011, p. 2509), schools possess various forms of capital that influence teacher socialization: a) human capital (professional knowledge and skills, commitments, and dispositions to learn about and perform professional roles); b) social capital (relationships and community, sense of trust and collaboration, and professional ties to networks and community within and beyond the school); and, c) cultural capital (cultural knowledge that confers power and status as embodied in what is considered legitimate school knowledge, curriculum, and teaching practices). Our systematic review identified a number of ways that beginning teachers were introduced to human capital forms of socialization through professional peer support; including structured interactions like team-teaching, the establishment of planning partners, sharing of teaching-related information, examination of subject-specific issues, and assistance with marking. New teachers identified the importance of conversations with peers, colleagues, mentors, and administrators, including informal chats about teaching. A number of programs also featured opportunities for beginning teachers to make observations of their peers teaching. Professional peer support was cited as a valuable social factor for building skills and sharing ideas. It was important that new teachers felt they had the freedom to draw on professional peer support as needed, while also having the freedom to develop their own teaching style.

Our review emphasized the importance of different types of relationships in helping with the induction process for beginning teachers. Peer relationships involving professional, social, and emotional levels and types of peer support existed in different capacities across a range of programs internationally, and an absence of peer support was identified as a challenge for new teachers regardless of their geographic jurisdiction. Relationships with the broader community outside of school were also of value to beginning teachers, and comprised of formal professional, non-formal professional, and non-professional structures and capacities.

It was evident that new teachers received a great deal of peer support to aid their social integration into the teaching community. Mentors often supported new teachers through being both a source of information, in addition to guiding and helping beginning teachers with navigating the school and broader teaching community. In helping new teachers with the socialization process, mentors acted as a guide for social interactions, assisting with social functioning with the school community, and role modeling both as a teacher and staff member.

Our systematic review revealed the potential importance of the emotional impact of having supportive peers. Among all features of strong peer relationships, beginning teachers cited trust and respect most frequently. Trust facilitated beginning teachers to feel confident in asking their peers anything without fearing the repercussions, though building trust takes time. It was important for new teachers to respect their peers, and it was equally important for them to feel respected for emotional support to occur. Some new teachers likened a strong peer relationship to feelings of friendship. Striking a balance between providing support and constructive, developmental feedback was seen to be problematic. The emotional support that beginning teachers received from peers was identified as an important factor to mitigate the complexities of the socialization process into the teaching profession.

The importance of professional, social, and emotional peer support was further demonstrated when contrasted with studies that featured programs where the outcomes of the absence of peer support were featured. Where beginning teachers did not experience formal peer support, they emphasized powerful feelings of isolation. Additionally, other beginning teachers experienced similar isolation when they perceived a complete lack of relationships with their formal peers. Where the relationship between mentor and mentee lacked effectiveness, the lack of trust, respect, and any effective balance between support and feedback were all reported as important issues.

Beyond the internal (within induction and mentorship programs) peer relationships, new teachers identified the significance of external relationships with the broader teaching and non-teaching community. Beginning teachers reported receiving support from formal professionals; a group that included individuals who were working in education and were formally connected to the beginning teachers. School psychologists, curriculum facilitators, and induction coaches also provided beginning teachers with support, which facilitated the socialization process. Non-formal professionals included individuals that worked in education but were not formally affiliated with new teachers in professional working relationships. Beginning teachers reported using online learning communities and social networking, Wiki pages, and engaging with former faculty members from universities where they had received training in teacher education programs. Non-professional individuals that were not working in education, but nonetheless had relationships with beginning teachers, also assisted with the socialization process. Beginning teachers also identified community members, including parents of their students as important non-professional relationships.

The concept of induction continues to be understood as a “helping mechanism” (Serpell, 2000, p. 3) for beginning teachers, which includes a socialization process into their school culture. Peers within the school were a natural part of the socialization process, though these relationships occurred in both formal and non-formal capacities. While individuals outside of the school may not be of help in socializing new teachers into the school culture, they can play a key role in helping to sustain teachers in their careers—a need identified by (Long et al., 2012). Our investigation found many studies where peers provided beginning teachers with varied types of support that all helped them grow as teachers, become active members of the teaching community, and feel emotionally comfortable in their new roles. We also established that individuals outside of the school could assist beginning teachers with the socialization process into the broader teaching profession.

Political contextual factors

A wide body of empirical studies has examined teacher attrition, mentorship, and induction as a systematic approach to understanding issues faced by beginning teachers. Our systematic review builds upon these understandings through examination of the complexities of creating and maintaining supportive school culture—something not previously considered (Long et al. (2012). School culture and support within schools are both influenced by political factors at different levels, including national or federal initiatives, state or provincial initiatives, as well as initiatives at the district, school, and community levels.

We found that where present, political factors at the national or federal level determined structural elements of mentoring and induction programs, such as the identification of a specific practice and/or frequency of that practice (e.g., Parkinson & Pritchard, 2005). In contrast, we highlight other situations where national or federal initiatives have resulted in seemingly robust guidelines for induction programming, but in actuality, great variation exists at the school-level phase of implementation (Anthony, Haigh, & Kane, 2011) in order to meet the individualized needs of schools and teachers. Beginning teachers were seen to favour mandated support that maintained the flexibility toward an individualized school culture through encouraging adaptable or flexible programming. School-level induction programs also allowed new teachers to develop their localized knowledge and understanding of national or federal policies and procedures related to teaching and education (Perry & Hayes, 2011) — an opportunity that was valued by some beginning teachers (Grammatikopoulos, Tsigilis, Gregoriadis, & Bikos, 2013).

Within our review, we found many examples of state or provincial initiatives that influenced, guided, and mandated the induction process of beginning teachers. State or provincial initiatives were identified in North America, Asia, and Oceania. These initiatives were mandated and implemented by governments and included formal mentoring, release time for both new teachers and mentors, professional development, creation of a teaching portfolio, teaching observation, and networking, amongst other facets.

At the district, school, and community levels, our review established factors that impacted directly upon the induction process for new teachers. District level programming affected the induction process through the handling and management of mentors, the implementation of professional development, and by product of their size, with smaller districts being perceived as more flexible and supportive than larger districts. At the school level, a need for micropolitical literacy was identified (e.g., Castro, Kelly, & Shih, 2010), where developing knowledge of the micropolitics of individual schools in addition to developing pedagogical practice was essential for beginning teachers successful integration into school culture. At the community level, beginning teachers' integration into the community was an important factor, especially given that support and collaboration were often sourced from the local community.

Cultural contextual factors

Our review revealed a number of cultural contextual factors that impacted upon the beginning teacher. First, there were a number of challenges reported by many of the studies regarding teaching philosophies held by beginning teachers and their school ethos or culture. Where there is a lack of alignment this is particularly problematic, with levels of conflict with school culture being reported as one consequence. Another important outcome

was how some cultural contexts do not facilitate social interaction between beginning teachers and the other teachers in school. This hindered the formation of collaborative, supportive, and collegial ways of working, and prevented trustful relationships from forming that would further support beginning teachers.

Mentorship and the role of individual mentors were seen as a strong mitigation against these challenges. However, complex mentor knowledge is required to support ongoing career development and professional development of beginning teachers. In addition, positive climates for learning and development for all school staff are essential. Our systematic review found value in moving away from *expert and novice* models of mentorship, to creation of an overarching culture of training and support. Many of the articles in our review reported how mentorship and induction have influence upon professional and ongoing career development of teachers. This has significant implications for the type of mentorship adopted and enacted for supporting beginning teachers, and we suggest that mentorship models such as Adaptive Mentorship (Ralph & Walker, 2010, 2011) have a potentially significant role here.

Exposure to diversity within schools was largely seen as a challenge rather than problem when there is adequate support for the beginning teacher. Exposure to diversity was reported by some articles to have the potential to be hugely beneficial to ongoing development of teaching practice in addition to a lasting impact upon students when beginning teachers are able to confidently engage in meaningful exploration of multi-cultural issues through their teaching practice. School demographics were seen to be important but not vital in helping beginning teachers to adjust to cultural difference. Our review found some evidence that the demographics of a school do not necessarily have a direct impact on the overarching institutional culture. For example, a diverse student demographic does not always equate to a culture of diversity within a school. Mentorship and the roles of mentors can have a crucial role in helping beginning teachers to navigate such situations.

Finally, the culture of a school and school district was seen as instrumental in helping beginning teachers' decisions to remain in the teaching profession. One study argued that a broad responsibility lies with entire school community to support beginning teachers to stay in the teaching profession. There is a significant positive correlation between school culture and climate and a teacher's decision to remain in the school district, with one study suggesting that improvement of working conditions impacts directly upon a teacher's urge to remain in either the school or school district (Wynn, Carboni, & Patall, 2007).

Personal and individual contextual factors

Our review highlighted a number of personal and individual contextual factors of significant relevance in providing effective support for beginning teachers. Feeling a sense of professional competence was linked to the level of emotional support received by a beginning teacher, both from their peers and from administration in their school. Beginning teacher participants from many of the studies examined in our review reported feeling significant pressure to achieve professional competence, with respect having a crucial role as they moved toward attaining a sense of increased competency. This was further facilitated for beginning teachers who were in a school culture where engaging in self-reflection was valued and facilitated.

Many studies reported how links between self-reflection and professional development should be established for beginning teachers, ideally through induction, mentorship, and involvement of the broader school community. Our review also found how levels of peer collaboration, and strength and effectiveness of professional relationships with the entire school community were valuable for facilitating the individual beginning teacher's ongoing professional and career development. In addition, there is a distinct role played by the empathy of the school community in helping beginning teachers to develop their emotional intelligence in such a manner that supports their developing practice.

A beginning teacher's prior skills and experience was seen to be of significant relevance in several of the studies examined in our review, with one large scale study reporting how prior experience in a field other than teaching resulted in a new teacher being more likely to stay in the profession (Kapadia, Coca, & Easton, 2007). This finding might suggest implications for the structure of initial teacher training and subsequent hiring practices of new teachers. Our review found that circumstances, either planned or unplanned, could result in the beginning teacher having to take some level of personal initiative which then impacted upon their developing self-efficacy. This could result in a negative "sink or swim" type of effect upon the beginning teacher. However, where teachers were facilitated through mentorship and induction activities that enhanced their ability to creatively problem solve within an overarching developmentally supportive culture, positive individual outcomes were achieved. The opportunity to experiment with creative problem solving further enhanced the possibility of positive outcomes for the beginning teacher.

Personal and individual concerns and anxieties felt by beginning teachers could be mitigated by the quality and structure of mentorship. Many studies described discrepancies between the levels of support provided through induction and mentorship programming and the levels and type of support required by the beginning teacher. There is significant potential value of utilizing mentorship models (i.e., Adaptive Mentorship©) to help to overcome this challenge.

Finally, the interaction between school context, culture, and beginning teacher expectations was seen to be instrumental in helping beginning teachers' form a strong sense of professional identity. Of benefit to facilitating professional identity formation, is the capability to tailor induction and mentorship programming to recognize individual learning dispositions, and responsive learning opportunities.

Research Question 3: Responses of Induction and Mentorship Programs to Contextual Factors Affecting Beginning Teachers

Our systematic review sought to describe and synthesize how induction and mentoring programs respond to contextual factors affecting new and beginning teachers. To identify the contextual factors, we examined the organizational contexts of the schools providing support for beginning teachers. Our review revealed a number of ways in which induction and mentoring programs react with and respond to organizational contextual factors. One strategy often utilized is some form of mentorship programming. Components of quality mentoring were identified as: being a multi-year developmental process, requiring supportive and understanding administrators (with associated implications for training, recruitment, ongoing professional development of administrators), training of mentors, evaluations that are linked appropriately to state and district standards, provision of technology to facilitate effective communication, educated mentors, reflective enquiry and

teaching processes, systematic and structured observations of teaching practice, formative teacher assessment, meaningful administrative involvement, and school culture supports.

Our review established that many induction and mentoring programs were comprised of more than one mode of support for beginning teachers. A combination of support was understood as being representative of how beginning teachers must navigate varied, complex, and dynamic demands teaching within different school contexts. Often, evaluation of programs through research studies and/or formal evaluation is difficult if programmatic details are absent. Similarly, one study featured in our review identified how multiple supports can provide a harmonious response in meeting the needs of beginning teachers provided that the definition of and rationale for such supports are clearly and appropriately communicated to all relevant stakeholders. Ultimately, how specific and clear the information is affects the perceived value of the mentorship and induction supports.

Moreover, our systematic review highlighted the importance of carefully selecting program elements to match new teacher needs. Programs that are flexible in their structure provide opportunities for unique contextual needs to be addressed. Critical to this process is creating informal and formal mentoring relationships that are personal, timely and well resourced. Just-in-time support responds to the fluid and dynamic social needs of beginning teachers as they become familiarized with their school, pedagogy, and profession. Commonly, mentoring is equated with induction (Clandinin et al., 2012; Hobson et al., 2009); however our review further highlighted that it is but one facet of comprehensive induction. Nevertheless, mentoring was the most widely discussed program element featured in the studies included in our review, with successful structures being reported as the levels of mentor involvement, reliability and accessibility. Furthermore, a high level of trust between all involved in the mentoring process is essential for this support to be successful.

Our review established that beginning teachers often feel pressured to make a good impression in their schools, and subsequently they are unlikely to want to reveal any problems and concerns that might be seen as a weakness. Our review identified how beginning teachers hold a positive regard for induction and mentoring programs when they experience strong feelings of support. Likewise, a sense of belonging achieved through effective induction and mentoring support is a common mitigating factor against anxiety expressed in many other induction and mentorship for beginning teachers' literature reviews.

Research Question 4: The role of school administration in supporting beginning teachers

Our review acknowledged the relevance and importance of the administrators' role in the induction and mentoring process. Long et al. (2012) stated that the scope of literature related to the role of principals and mentorship and induction is varied and includes such areas as: school culture, instructional leadership, support for new teachers, mentor selection, and flexibility to meet school needs. Similar to this and other reviews of the literature, our analysis uncovered strands in the literature that pertained to school administrators' duties and responsibilities; types and formats of support for beginning teachers; the overall impact and outcomes of principal engagement; and the importance

of principals' leadership and commitment for the success of teacher induction and mentoring programs.

School administrators' overall responsibility for supporting beginning teachers' personal and professional development is seen in the literature as part of their direct leadership responsibility of teacher development and support in their schools. As such, principals are required to be informed about the program's functioning, to have awareness of beginning teacher needs, to address contextual expectations for teachers, and to clearly communicate expectations to beginning teachers. Various duties of school administrators were discussed in the reviewed literature, varying from informal interactions with the beginning teachers and mentors to development and implementation of programs, mentor assignment, scheduled formal meetings, observations, and teacher supervision and performance evaluation. Ingersoll and Strong (2011) discussed a variety of supports, such as in-school mentors, orientation, professional development, release time, and professional learning communities, that may be offered to beginning teachers by the school administrators.

Likewise, in their review Feiman-Nemser, Schulle, Carver, and Yusko (1999) acknowledged that knowledgeable and supportive administrators and the settings where new teachers work have an important influence on their success. Our review pointed to the importance of school administrators' active and positive support for their induction programs, and the negative effects that lack of support and assistance from administrators may have on beginning teachers' development. Furthermore, principals' commitment to and recognition of the program, as well as active engagement and collaborative culture orientation may positively or negatively influence the beginning teachers' commitment to and understanding of the need for the program. The success of new teachers seems to be related to the school culture in which their first experiences as beginning teachers take place and to the principal's pivotal role in building and maintenance of collaborative school culture (Long et al., 2012).

Based on the evidence in their meta-analytic review, Borman and Dowling (2008) suggested that initiatives that lessen the bureaucratic organization of schools and school systems and strategies that promote more genuine administrative support from school leaders and collegiality among teachers are strategies that may improve retention. One of significant ways to ensure these processes was administrators' engagement and support of the work of mentors, whereas careful and thoughtful approaches to mentor assignment and training were deemed important. Similarly, Wang, Odell, and Schulle (2008) found that the extent to which school administrators were able to support mentors' work and new teaching approaches substantially affected the quality of novice teachers' learning to teach with mentors. In their review, Ingersoll and Strong (2011) found that programs should focus on selection and training of mentors to ensure high levels of support and that teacher collaboration and principal assistance are the most influential factors for novices. The principal is deemed the instructional leader who actively supports and participates in professional development for beginning teachers (Correa & Wagner, 2011), and a part of this responsibility is directly linked to their work with mentors. Instructional leadership capacity of principals is manifested through initiation of conversations with beginning teachers, observation of instruction, provision of feedback, monitoring of progress, and facilitation of the transition between teacher education programs and the realities of classroom teaching (Clandinin et al., 2012).

Long et al. (2012) concluded that there was limited empirical evidence directly linking the role of the principal with the retention of teachers. Similarly, our analysis did not uncover considerable data to support this claim. However, we found empirical data on the direct and indirect impact of school administrator on the effective outcomes of teacher induction and mentoring programs that point to the ultimate outcome of teacher development and potentially retention. Direct impact of principal engagement was manifested through the findings in the literature that pointed to the greater importance of relational aspects (including with administrators) than activities, and highlighted the higher levels of efficacy, satisfaction with teaching, and intention to remain in the profession when beginning teachers experienced encouragement, support, and assistance from their school administrators. Our review found that principals' specific actions and trust orientation positively impact new teachers' perceptions of having such needs as respect, belonging, self-esteem, confidence, and autonomy met. On the contrary, school administrators' failure in satisfying beginning teachers needs, provision of support, resources, and clear communication negatively affects overall teacher experiences and may be instrumental for novices' intention to leave.

Besides the supportive role of school administrators, our review highlighted the expectations of school principals to supervise and evaluate the work of the new teachers. This may stem from the expectation for administrators to supervise the induction programs for beginning teachers, providing counsel for best instructional practices and classroom management skills (Correa & Wagner, 2011). In addition, as noted in the research literature, the supportive role of school administrators in teacher induction may be counteracted by these requirements for supervision and evaluation the work of the new teachers (Abu Rass, 2010; Chatlain & Noonan, 2005; Cherubini, 2010). In their review, Humphrey et al. (2000) noted that the role of evaluation of the beginning teachers in induction programs is fervently debated, stemming from the seeming juxtaposition in the argument of whether beginning teachers should receive both support and evaluation from the same individuals as part of their induction experience. Helpful in this regard is their description of the evolution of this debate, framed within the *formative assessment versus summative evaluation* continuum. While evaluation is typically associated with effectiveness, adequacy, value, and appropriateness of a certain action, process, or product, assessment offers feedback and is formative in nature to guide professional growth of teachers so they are able to make appropriate adjustments in their teaching or program. This point also raises an important issue of beginning teachers' accountability for their progress. Achinstein (2006) highlighted the importance for beginning teachers to understand and be aware of the overall role of school principal for teacher development, as well as his/her position in relation to beginning teachers' support within the broader context of schooling. Stemming from this position, principals can provide high-quality management through administrative leadership and a climate of trust if they want to support their teachers in terms of autonomy and appraisal (Blömeke & Klein, 2013).

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CHAPTER 11

CONCLUSIONS AND IMPLICATIONS

In this final chapter, we conclude our systematic review with an overview of its strengths and limitations, and we introduce a heuristic model that offers a visual representation of the implications of our findings for new and beginning teachers. We also discuss potential implications for policy, practice, and future research.

The Strengths of the Systematic Review

- Our systematic review highlighted a significant number of research studies that have been carried out on the effects of mentorship and induction on beginning and new teachers learning, performance, attrition, and retention.
- Our review indicated that there are some commonalities involved in the successful induction and mentorship of beginning teachers in spite of their geographic variance.
- Our search identified relevant research published in English, whether or not it originated in non-English speaking countries, and the bibliographic information on these was extensive and included a variety of different nations.
- Our review search confirmed research on induction and mentorship of beginning teachers has been conducted for several decades, and research 10 years of age can be still be of relevance to the current research agenda.

The Limitations of the Systematic Review

- Our review was limited to searching for articles written in English, we therefore suspect that this excluded research conducted in a variety of other nations from being represented.
- Our original inclusion criteria had to be modified, as there was a lack of valid, recent, and robust research on the effects of induction and mentorship that explicitly related to retention and attrition of beginning teachers.
- Our search strategies concentrated on terminology familiar to us as Canadian and European researchers. We acknowledge that other nations might employ various other terms when discussing support for beginning teachers.

A Heuristic Model of Contextual Factors that Impact the Beginning Teacher

As shown in Figure 1, we have adapted Bronfenbrenner's (1994) ecological systems theory to create a heuristic visualization of the complex and multi layered contextual factors revealed through our systematic review that influence and impact upon mentorship and induction programing for beginning teachers. When employed in this framework, Bronfenbrenner's ecological systems theory directs attention toward the interaction between the personal/individual, the social, political, and cultural, and the organizational contextual and environmental variances and nuances, and the potential sources of influence and impact upon induction and mentorship programing.

Within our framework, beginning teacher's personal factors are situated at the core, both being distinctive and dependent on, and shaped by, organizational, social, political, and cultural contextual factors. Personal factors comprise the social identity of an individual beginning teacher. These includes the beginning teacher's sense of professional competence, emotional intelligence, ability and opportunity to take initiative, prior skills and experience, professional identity, and the quality and structure of mentorship they perceive as an individual. The beginning teacher's personal factors are constantly shaped by both the individual environment and encounters with other individuals situated within the immediate microsystem environment. The microsystem consists of interpersonal features at the school organizational level. These factors include the school culture, and the ethical values and practices that are embedded into that culture. In addition, they include the individual groups of factors of the entire school staff that are unique to that school.

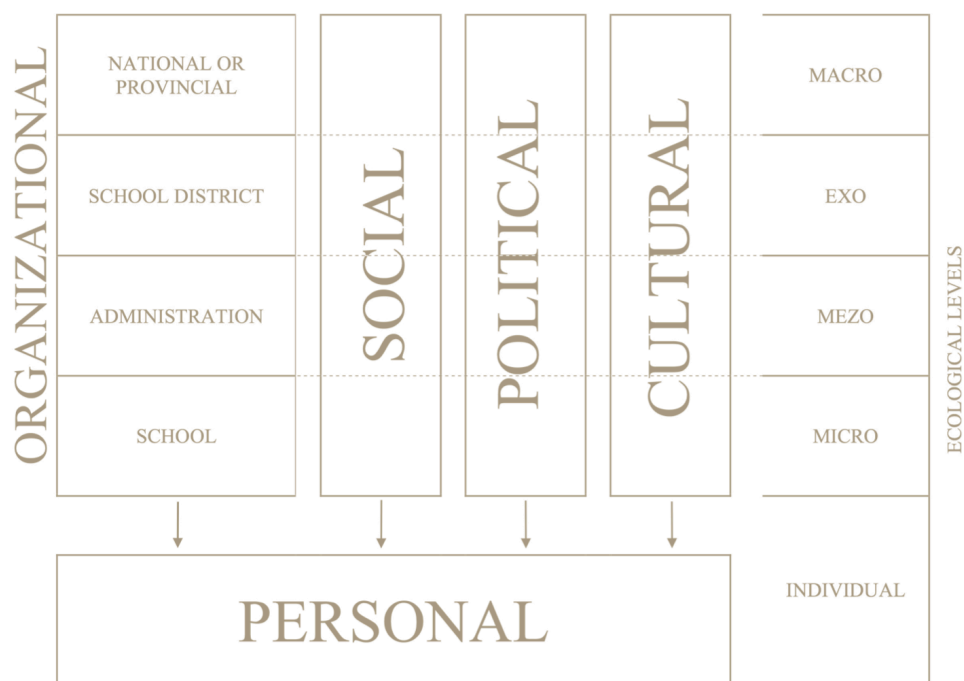


Figure 1. A Heuristic Framework of Contextual Factors that Impact Mentorship and Induction Programs for the Beginning Teacher

Mesosystem refers to the school administration and management of duties and responsibilities towards beginning teacher support, the types and format of such support, the leadership roles and commitment towards supporting beginning teachers within the school, and the impact and outcomes of school administration involvement in supporting beginning teachers. Exosystem refers to organizational or institutional factors at school district level that shape or structure the environment within which the beginning teacher's experiences of mentorship and induction programming occur. These factors include the policies, procedures, community relationships, organizational structure, and the overarching

institutional culture of the school district. Macrosystem includes federal/national/provincial and state politics and initiatives, national ideologies and identities, and demographical diversity, including religion, ethnicity, and socioeconomic status.

To summarize, our heuristic framework allows us to identify the source and extent of contextual and environmental factors that affect mentorship and induction programming. This allows for purposeful, intentional recognition of the full richness of formal, facilitated and spontaneous avenues of mentorship and induction programming that support early career development of beginning teachers.

Implications for Policy, Practice, and Further Research

We believe that this heuristic will be helpful for policy makers and educational leaders in the process of designing, implementing, and maintaining the teacher induction and mentoring programs. Application of this heuristic allows for the planning, analysis, and evaluation of the entire policy cycle (inasmuch as possible, recognizing the complex and non-linear policy development processes) by offering the broader picture of the gamut and nature of factors that have an impact on the effective programming and successful induction and mentoring experiences of beginning teachers. We contend that policy environment surrounding the induction and mentoring processes matters, and this heuristic brings it into focus. Furthermore, it is important to further examine the implications of the increasingly diverse contexts of schooling and ever-increasing policy requirements for administrator's role.

In terms of practice, this heuristic is helpful for situating and assessing the existing or planned programs. Given the instrumental role of school administrators in the induction and mentoring processes, it may offer an assistive lens to principals and other administrators by identifying the areas where novice teachers' needs are being or not being met by the programs. It may also provide school leaders with better understanding of the source and type of challenges faced by a beginning teacher, who then can measure the respective alignment or misalignment of the supports within program provision necessary to mitigate those challenges.

Given the empirical support for the significance of mentoring within the induction programs, we see the need to further explore the role of mentorship frameworks as mitigating factors towards contextual challenges (especially for forming effective mentoring relationships). While it is evident that school administrators have an important role in terms of involvement within induction and mentoring program provision, further examination of the specific role of administration in mitigating contextual challenges is warranted. Further studies would do well to examine the mechanisms and structures that can help school administrators develop trusting and collaborative relationships with mentors and beginning teachers. Stemming from this point is the need to explore the effect of mentoring and supporting structures available for new administrators and their links with subsequent involvement in induction programs for beginning teachers. In other words, we suggest further research on the connection between the mentoring support experienced by beginning administrators and the subsequent shaping of their role as supportive figure for beginning teachers in their schools. Finally, this review warrants continuing research into the multifaceted nature of organizational factors that shape the roles, responsibilities of stakeholders' participation in induction and mentoring programs.

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APPENDIX A: INITIAL SEARCH RESULTS

Search #	Date	Database	Keywords	Years	Number of Records
Search 1	March 10 th 2014	ERIC	beginning teachers	2004-2014	289
Search 2	March 10 th 2014	Education Source	new teacher support	2004-2014	420
Search 3	March 10 th 2014	Education Source	beginning teacher support	2004-2014	312
Search 4	March 10 th 2014	Education Source	teacher retention	2004-2014	1,182
Search 5	March 10 th 2014	Education Source	new teacher retention	2004-2014	72
Search 6	March 10 th 2014	Education Source	beginning teacher retention	2004-2014	58
Search 7	March 10 th 2014	Education Source	teacher attrition	2004-2014	384
Search 8	July 17 th 2014	Education Source	teacher mentoring	2004-2014	937
Search 9	March 20 th 2014	Education Source	mentoring new teachers	2004-2014	237
Search 10	March 20 th 2014	Education Source	mentoring beginning teachers	2004-2014	224
Search 11	March 20 th 2014	Education source	teacher mentorship	2004-2014	55
Search 12	March 21 st 2014	Education source	teacher induction	2004-2014	622
Search 13	March 21 st 2014	Education source	new teacher induction	2004-2014	236
Search 14	March 21 st 2014	Education source	beginning teacher induction	2004-2014	230
Search 15	March 21 st 2014	Education source	new teacher transition	2004-2014	46
Search 16	March 21 st 2014	Education source	beginning teacher transition	2004-2014	45
Search 17	March 21 st 2014	Education source	new teacher development	2004-2014	463
Search 18	March 21 st 2014	Education source	beginning teacher development	2004-2014	246
Search 19	March 20 th 2014	Academic Search Complete	new teacher support	2004-2014	220
Search 20	March 20 th 2014	Academic Search Complete	beginning teacher support	2004-2014	161
Search 21	March 20 th 2014	Academic Search Complete	teacher retention	2004-2014	642
Search 22	March 20 th 2014	Academic Search Complete	new teacher retention	2004-2014	42
Search 23	March 20 th 2014	Academic Search Complete	beginning teacher retention	2004-2014	33
Search 17	March 20 th 2014	Academic Search Complete	teacher attrition	2004-2014	219
Search 18	July 17 th 2014	Academic Search Complete	teacher mentoring	2004-2014	544
Search 19	March 20 th 2014	Academic Search Complete	mentoring new teachers	2004-2014	132

Search 20	March 20 th 2014	Academic Search Complete	mentoring beginning teachers	2004-2014	121
Search 21	March 20 th 2014	Academic Search Complete	teacher mentorship	2004-2014	35
Search 29	March 26 th 2014	Academic Search Complete	teacher induction	2004-2014	345
Search 30	July 17 th 2014	Academic Search Complete	new teacher induction	2004-2014	123
Search 31	March 26 th 2014	Academic Search Complete	beginning teacher induction	2004-2014	116
Search 32	March 26 th 2014	Academic Search Complete	new teacher transition	2004-2014	18
Search 33	March 26 th 2014	Academic Search Complete	beginning teacher transition	2004-2014	17
Search 34	March 26 th 2014	Academic Search Complete	new teacher development	2004-2014	273
Search 35	March 26 th 2014	Academic Search Complete	beginning teacher development	2004-2014	139
Search 36	March 26 th 2014	ProQuest*	new teacher support	2004-2014	86
Search 37	March 26 th 2014	ProQuest*	beginning teacher support	2004-2014	63
Search 38	March 26 th 2014	ProQuest*	teacher retention	2004-2014	660
Search 39	March 26 th 2014	ProQuest*	new teacher retention	2004-2014	46
Search 40	March 26 th 2014	ProQuest*	beginning teacher retention	2004-2014	72
Search 41	March 26 th 2014	ProQuest*	teacher attrition	2004-2014	176
Search 42	March 28 th 2014	ProQuest*	teacher mentoring	2004-2014	545
Search 43	March 28 th 2014	ProQuest*	mentoring new teachers	2004-2014	82
Search 44	March 28 th 2014	ProQuest*	mentoring beginning teachers	2004-2014	75
Search 45	March 28 th 2014	ProQuest*	teacher mentorship	2004-2014	24
Search 46	March 28 th 2014	ProQuest*	teacher induction	2004-2014	467
Search 47	March 28 th 2014	ProQuest*	new teacher induction	2004-2014	122
Search 48	March 28 th 2014	ProQuest*	beginning teacher induction	2004-2014	87
Search 49	March 28 th 2014	ProQuest*	new teacher transition	2004-2014	11
Search 50	March 28 th 2014	ProQuest*	beginning teacher transition	2004-2014	9
Search 51	March 28 th 2014	ProQuest*	new teacher development	2004-2014	116
Search 52	March 28 th 2014	ProQuest*	beginning teacher development	2004-2014	46
Search 53	July 17 th 2014	Academic Search Complete	NQT	2004-2014	284
Search 54	June 15 th 2014	Academic	NQT "and"	2004-2014	79

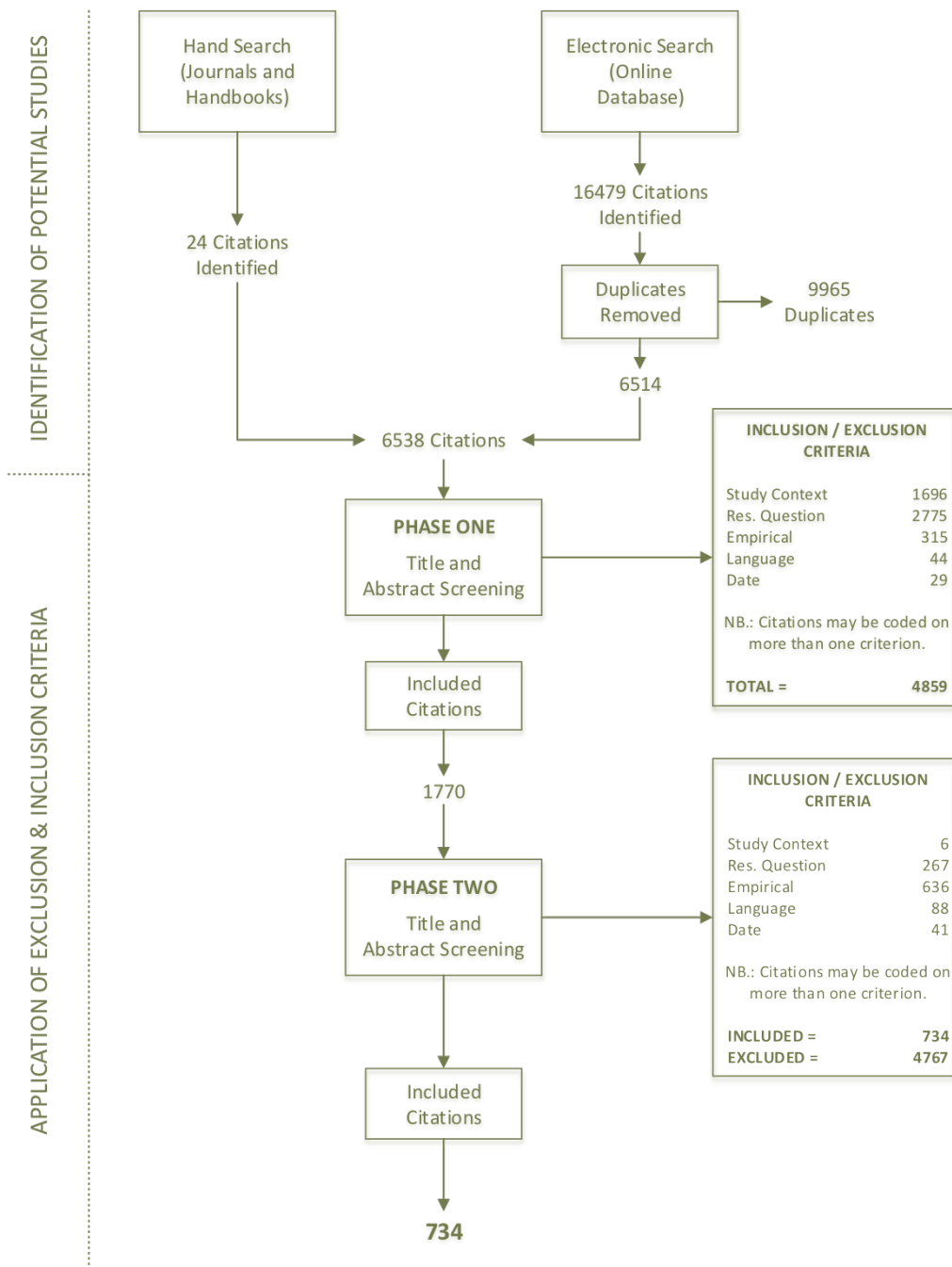
		Search Complete	development		
Search 55	June 15 th 2014	Academic	NQT "and"	2004-2014	68
		Search Complete	support		
Search 56	June 15 th 2014	Pro Quest	NQT	2004-2014	1759
Search 57	June 15 th 2014	Pro Quest	NQT "and"	2004-2014	686
			development		
Search 58	June 15 th 2014	Pro Quest	NQT "and"	2004-2014	824
			support		
Search 59	June 15 th 2014	Education Source	NQT	2004-2014	184
Search 60	June 15 th 2014	Education Source	NQT "and"	2004-2014	54
			development		
Search 61	June 15 th 2014	Education Source	NQT "and"	2004-2014	50
			support		
Search 62	June 18 th 2014	Pro Quest	NQT "and"	2004-2014	37
			induction		
Search 63	June 18 th 2014	Pro Quest	NQT "and"	2004-2014	4
			retention		
Search 64	June 18 th 2014	Pro Quest	NQT "and"	2004-2014	4
			attrition		
Search 65	June 18 th 2014	Pro Quest	NQT "and"	2004-2014	2
			mentoring		
Search 66	June 14 th 2014	EPPI documents then Proquest	Relevant articles based on topics	2004-2014	13

ProQuest search included the following 56 databases; ABI/INFORM Global, ABI/INFORM Trade & Industry (1971-current), ARTbibliographies Modern (ABM) (1974-current), Avery Index to Architectural Periodicals (1934-current), BioOne Abstracts and Indexes (1998-current), British Periodicals, Canadian NewStand Major Dailies (1985-current), CBCA Business, CBCA Complete, CBCA Education, CBCA Reference and Current Events, Dissertations and Theses @ Queen's University, Kingston, Ontario, ebrary@ e-books, ebrary® e-books, EconLit (1969-current), ERIC (1966-current), Ethnic Newswatch, FRANCIS (1984-current), Hoover's Company Profiles, Index Islamicus (1906-current), International Biography of Art (IBA), International Biography of the Social Sciences (IBSS) (1951-current), International Index to Music Periodicals Full Text (1874-current), Linguistics and Language Behavior Abstracts (LLBA) (1973-current), METADEX (1966-current), MLA International Biography (1926-current), PAIS International (1914-1976), Periodicals Archive Online, Philosophers Index (1940-current), Physical Education Index (1970-current), PILOTS: Published International Literature on Traumatic Stress (1871-current), PRISMA (Publicaciones y Revistas Sociales y Humanisticas (1966-current), ProQuest Asian & Business (1971-current), ProQuest Dissertations and Theses Full Text, ProQuest European Business, ProQuest Historical annual Reports, ProQuest Historical Newspapers: The Atlanta Constitution (1868-1945), ProQuest Historical Newspapers: Boston Globe (1872-1982), ProQuest Historical Newspapers: Chicago Defender (1910-1975), ProQuest Historical Newspapers: Chicago Tribune (1849-1990), ProQuest Historical Newspapers: The Christian Science Monitor (1908-2000), ProQuest Historical Newspapers: The Globe and Mail (1844-2010), ProQuest Historical Newspapers: Hartford Courant (1764-1988), ProQuest Historical Newspapers: Los Angeles Times (1881-1990), ProQuest Historical Newspapers: New York Times (1851-2009), ProQuest Historical Newspapers: New York Times ((1851-2010) with Index (1851-1993), ProQuest Historical Newspapers: Toronto Star (1894-2012), ProQuest Historical Newspapers: The wall Street Journal (1889-1996), The Washington Post (1877-1997), ProQuest Nursing & Allied health Source, ProQuest Political Science (1985-current), ProQuest Public Health, ProQuest Sociology (1985-current), Sociological Abstracts (1952-xurrent), The Vogue Archive, Worldwide Political Science Abstracts (1975-current).

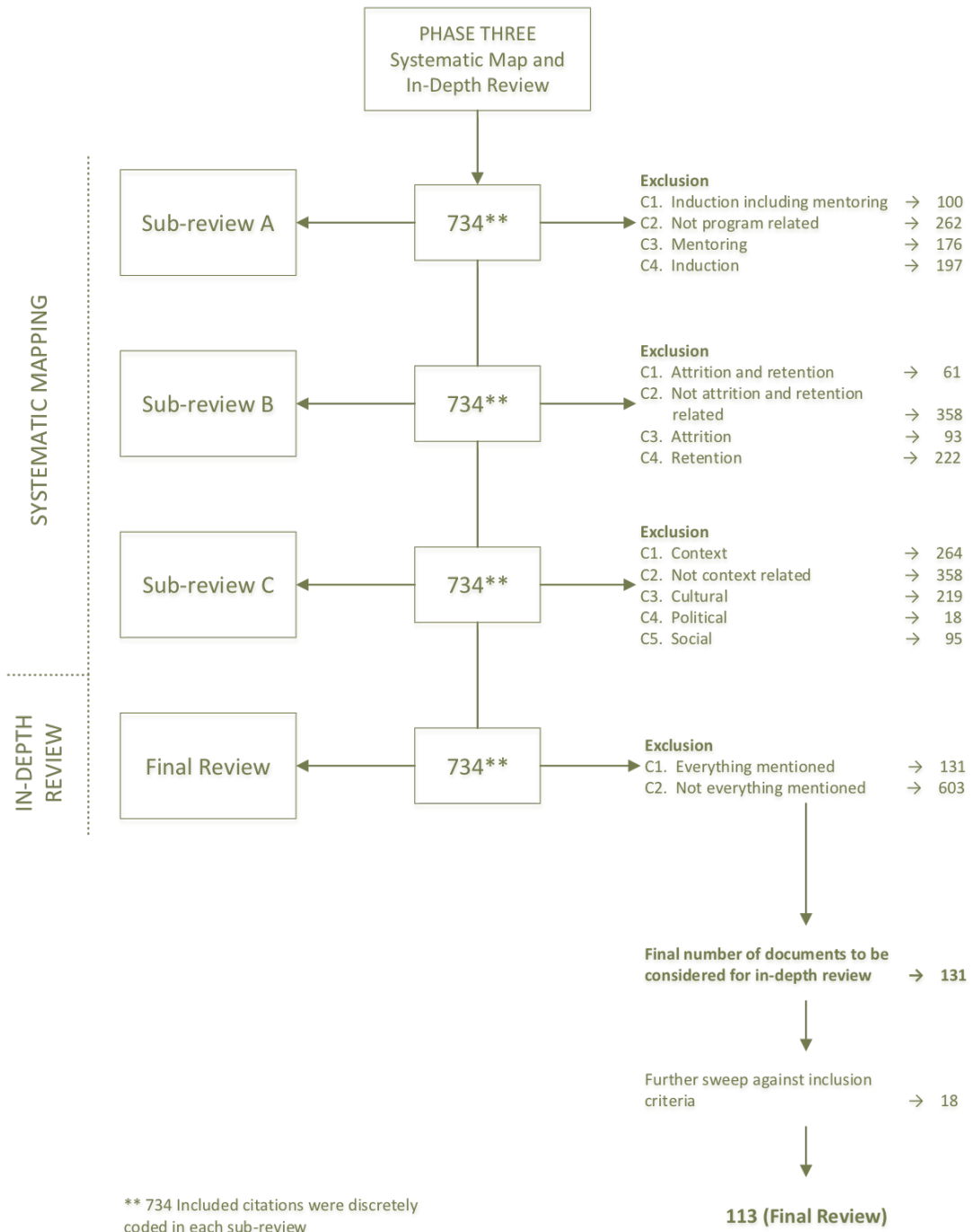
APPENDIX B: RESULTS OF HAND SEARCH

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APPENDIX C: CHART DETAILING FIRST SYSTEMATIC REVIEW-MAPPING



APPENDIX D: CHART DETAILING SECOND SYSTEMATIC REVIEW-MAPPING



APPENDIX E: DETAILED LIST OF GEOGRAPHIC REGIONS INCLUDED IN OUR REVIEW

United States	
Region	# of studies Included
California	10
Michigan	3
Texas	5
New York	2
Nebraska	1
Missouri	4
Pennsylvania	2
Connecticut	1
N. Carolina	1
Virginia	1
Washington DC	1
South Dakota	1
Oregon	1
Utah	1
Massachusetts	1
Kentucky	1
South East	5
North East	2
Mid-West	4
East Coast	1
Mid-Atlantic	1
South West	2
South East	1
South	1
Entire	8
Not specified but in US	2

United Kingdom	
Region	# of studies included
England	10
Scotland	2
Wales	1
Northern Ireland	1
Entire	1

Canada	
Region	# of studies included
Ontario	10
Saskatchewan	2

Europe	
Region	# of studies included
Netherlands	2
Germany	2
Cyprus	2
Greece	1
Estonia	1

Australia/New Zealand	
Region	# of studies included
Australia	2
New Zealand	4

Middle-East Region	
Region	# of studies included
Israel	5
Saudi Arabia	1

Asia	
Region	# of studies included
China	1

Combined Nations	
Region	# of studies included
United States and Canada	1
Netherlands, Israel, Serbia, USA, UK	1

Region	# of studies included
Location not specified	1