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Attitudes and Beliefs of New Teachers Towards Induction Requirements

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Abstract

There is worldwide teacher shortage that is affecting the access to quality education. In past 5 years, as high as 50% of new teachers have been leaving the field during their first 5 years, after receiving a teaching credential. To help slow attrition rates in California, induction has become a required element for new teachers to transition from a preliminary credential to a clear credential. The purpose of this qualitative study was to explore and examine the effect on teaching and retention of novice teachers based on their beliefs and attitudes regarding California induction policy requirements. The research question to guide this study was: How do the attitudes and beliefs of new teachers, regarding California induction policy requirements, affect teaching and retention after participating in a university-based online induction program? The sample was a purposeful convenience sample consisting of 11 teachers who were required to complete an induction program in California. The data collection instruments were initial interviews, archival data in the form of Individual Learning Plans (ILPs), and follow-up interviews. Inductive analysis was used. Throughout the study, the constant comparative analysis method was used. The findings showed the attitudes and beliefs of induction participants in California do affect teaching and retention. While induction has positive effects on teaching and retention rates, the policy tied to induction sometimes elicit negative attitudes and beliefs in new teachers. These findings shed light on the importance of providing teachers' attitudes and beliefs towards induction to policymakers.

Keywords: induction, attrition, California induction, individualized learning plans

Dedication

This dissertation is dedicated to my husband Tom, my life partner, who told me at the beginning of this journey when I asked his permission to proceed, that we had been together long enough for him to know he can never stop me from my dreams. To my children who have watched me sit up late at night working and helped me with my tech issues. To my parents and parents-in-law, who have always been my greatest supporters. To Jackie who encouraged me and celebrated with me every eight weeks as I finished a class. To Carol, my editor extraordinaire, thank you for your mentorship, for bringing me into the induction world, and for the technical support through this process. And finally, to Drake Charles my previous Head of School; we talked about starting this path together, but his path led him to our Heavenly Father.

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Jesus said to him, "If you can believe, all things are possible for him who believes."

~ Mark 9:23 NKJV

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Chapter 1: Introduction

Introduction to the Problem

Children all over the world need quality teachers and access to education. Yet, a worldwide teacher shortage is affecting the access children have to quality education. “In the last decade, mountains of reports have been written in countries around the world about the need for more powerful learning focused on the demands of life, work, and citizenship in the 21st century” (Darling-Hammond, 2010, p. 2). Nations around the world are restructuring their educational systems to meet the new demands of education and the different skills that are and will be required in the workforce (Darling-Hammond, 2010). With not enough teachers to fill the demands that the world requires, new actions must be taken to build up the teaching force. Education policies regarding new teacher training and requirements continue to evolve in response to high worldwide attrition rates in the profession. One of the solutions set in motion to help with educating, supporting, and maintaining teachers, is the requirement for new teacher to participate in an induction program.

Teacher induction in California has gone through stages of evolution. The most formal program that was the forerunner to current day induction was the California Beginning Teacher Support and Assessment (BTSA program). The BTSA was a grant program that started in 1992 to provide a funded support system to new teachers (Lovo, Cavazos, & Simmons, 2006). “The BTSA program was designed to provide a smooth transition into the complex responsibilities of teaching, seeking to increase the retention of beginning teachers and improve learning opportunities for their K–12 students” (Lovo et al., 2006, p. 54). However, the success of induction programs is based on funding and induction is a strain on budgets.

High attrition rates and teacher shortages are occurring worldwide. Teacher shortages and the need to support new teachers is also a domestic issue. The worldwide teacher scarcity means not all students are receiving equal access to quality education.

> National data on the indicators of teacher supply and demand point to the potential for current and future shortages. The number of teachers entering the profession has significantly declined at the same time as more teachers are needed due to increasing student enrollments and districts' efforts to replace the teachers and programs reduced during the Great Recession, between 2008 and 2012. (Sutcher, Darling-Hammond, & Carver-Thomas, 2016, p. 15)

Much of this issue stems from the aging out of the workforce of the baby boomer generation, making attracting and retaining teachers a global issue (Darling-Hammond, 2017; Helms-Lorenz, Slof, & Van de Grift, 2013; Kearney, 2014; Shanks, 2017). In response to this problem, induction has been implemented in many countries to support young teachers in the classroom and to encourage them to stay in the profession (Kearney, 2014). In contrast to many countries, the United States, except for a few states, "has failed to maintain focused investments in a stable, well-prepared teaching force" (Darling-Hammond, 2010, p. 8). However, the focus is starting to shift. Within the United States, by 2016, "Twenty-four states require new teachers to complete or participate in an induction or mentoring program for professional teaching certification" (Goldrick, 2016, p. v). California is one of the states that early on had an educational system that adhered to the philosophy of training and supporting new teachers through induction. In response to needing a more available pool of teachers to staff schools, the California Commission on Teacher Credentialing (CTC) has developed induction requirements since the early 1990s, to the point that a new teacher induction program is now required as part of the state's licensure

process (CTC, 2016). It is hoped that taking action to support and build up new teachers will slow attrition rates and stabilize the teaching workforce in California.

The numbers of children without a teacher to guide them in the classroom is staggering. García and Weiss (2019) define teaching shortages as "the inability to staff vacancies at current wages with individuals qualified to teach in the fields needed," (p. 2). In 2016, Sutcher et al. estimated the national teacher shortage would grow to 88,000–120,000 in the 2016–2017 school year. This number is expected to continue to grow. In California in 2015, "in the first week of September, after most schools had already been open for two weeks, EdJoin, the statewide education-job-search portal, still listed 5,116 open teaching positions in school districts and county offices of education around the state" (Darling-Hammond, Furger, Shields, & Sutcher, 2016, p. 2). The lack of teachers in classrooms harms children, our education system, and our future workforce.

In 2016, the California Commission for Teacher Credentialing introduced new standards for the requirements of induction, which are necessary for California-trained teachers to clear their preliminary credentials for licensure (CTC, 2016). This was in response to the need to train and retain new teachers. Teacher attrition charts created by Ingersoll (2012) show how most of the teaching force has little experience. Therefore, induction programs are set up to support new teachers and equip them with the tools needed to succeed and strengthen the education workforce. Ingersoll argues new teacher induction programs are needed and should be a part of education reform and policy. However, policymakers do not know teachers' attitudes of policy even though the impact of this requirement could affect whether potential teachers enter, and new teachers remain in the profession.

Induction is becoming a common practice for licensure in many states. “California requires all first- and second-year teachers to participate in an induction program” (New Teacher Center [NTC], 2016, p. 1). However, the policy requirements in California go even deeper than this initial statement. “A 1998 law (SB 2042) created a new two-tier credentialing system for California teachers, under which they earn the first ‘level’ through their initial preparation programs and the second ‘level’ only after participation in an approved induction program” (NTC, 2016, p. 3). Thus, to receive a California clear credential, all newly credentialed teachers must complete an induction program before their preliminary credential expires within the first 5 years of teaching.

This study aimed to hear the voices of new teachers regarding their attitudes and beliefs toward induction policy requirements, with the goal of informing the educational community of the attitudes that new teachers have toward the required induction participation. Chapter 1 introduces the various components of the study. It begins by outlining the background, context, and history of induction. This is followed by the conceptual framework of the problem. The problem statement, purpose of the study, and research questions help the reader understand the focus of the research. In addition, the rationale, relevance and significance of the study, definitions of terms, and assumptions, delimitations, and limitations are discussed. The chapter concludes with a summary of the various components that were addressed in the case study.

Background, Context, History, and Conceptual Framework of the Problem

Based on the global research on high attrition rates in education (Darling-Hammond, 2017; Helms-Lorenz et al., 2013; Kearney, 2014; Shanks, 2017) the United States has addressed the need for new teacher induction at the state level, not at the national level. The NTC is a national nonprofit organization that was created in 1998, to improve student learning by focusing

on the training and needs of a new generation of educators (NTC, 2019). NTC works "in conjunction with school districts, state policymakers and educators across the country to increase the effectiveness of teachers and school leaders at all levels" (NTC, 2019, para. 3). According to a New Teacher Center report (Goldrick, 2016) in 1987–1988 the average years of experience of teachers was 15, in 2007–2008 the typical teacher was in her first year, and current data shows similarly that most teachers who are practicing today are early in their careers. "Yet, in 2015–2016, only 24 states connect induction to the teacher credentialing process, up from 22 states in 2010–2011" (Goldrick, 2016, p. vi). This shows that induction has not become a priority within all states or at the national level.

California is one of the states that connects induction to licensure for a credential. Current California licensure includes a 4-year bachelor's degree, two or three semesters of a preservice teaching program, as well as several state-required tests and CPR certification. This first level of teacher education in California results in a preliminary credential. The next level of teacher licensure in California must occur within the first 5 years of earning a preliminary credential when new teachers must procure a teaching contract and complete a 2-year new-teacher induction program (CTC, 2018). Once this step is completed successfully, California teachers receive their clear teaching credential. If this step is not completed, the preliminary credential expires. The 2-year requirement became a statewide policy in 2016 (CTC, 2016); however, the CTC preconditions list an Early Completion Option (ECO) for previously trained or highly experienced teachers who need to clear their credentials in California. This means that teachers who qualify based on the criteria the program sets forth can complete induction in a shorter time period than the usually required 2 years. While the CTC does not mandate the criteria for ECO,

decisions may be made based on, but not limited to, previous mentoring programs, teaching experience, and/or excellence in teaching performance.

Darling-Hammond (2010, 2012, 2017) has researched induction extensively, resulting in numerous influential books, articles, and presentations (Darling-Hammond et al., 2016). Her work has progressed the study and implementation of induction nationally and worldwide. In California, the life work by Darling-Hammond has influenced policies established by the California Department of Education. She strongly advised that specific key elements are crucial to effective induction programs, but that implementation and development of induction should occur regionally (Darling-Hammond, 2017). In California, this model is adhered to through a yearly statewide induction conference and regularly scheduled regional meetings, allowing the opportunity for stakeholders, that is those who run induction programs, to share ideas and network.

While there is extensive research on the benefits of induction with Ingersoll (2003, 2012) and Linda Darling-Hammond (2012, 2017) leading the charge, there is limited research on the attitudes and beliefs toward induction by the new teachers the policy affects. Many new teachers have not seen the immediate benefits of induction, rather they have viewed induction as another obstacle in the long road to licensure. This is often because of the lack of support new teachers felt they received in their induction programs (Kidd, 2015). In addition, when Tomas, Girgenti, and Jackson (2017) were analyzing preservice teachers' attitudes toward education for sustainability and its relevance to their learning, they found "preservice teachers may not immediately see any relevance of what they are learning" (p. 324). After interviewing new teachers on their attitudes of induction after a program, Tomas et al. (2017) found new teachers who were supported, are more likely to identify the relevance of the program in their classroom

teaching. For many new teachers, required professional development does not seem to be as important, rather induction candidates see support as a priority (Nasser-Abu Alhija & Fresko, 2016). There is a chasm between the purpose of policy and new teacher buy-in of the importance of additional training after preliminary training at a university. Teachers must feel supported in their induction programs to help them make connections between what they are learning and classroom application.

Conceptual Framework for the Problem

The conceptual framework for the research was developed from existing literature and a theoretical framework of Bandura's (1977) self-efficacy and Bandura's (1986) social cognitive theory. Self-efficacy helps determine how individuals address new challenges of stressful experiences through effort or lack thereof (Bandura, 1977). Thus, there is a relationship between self-efficacy and performance. Expanding on self-efficacy, Bandura (1986) related social cognitive theory to how individuals develop personally and through social interactions. Bandura, Davidson, and Davidson (2003) reveal the reciprocal causation through cognitive, behavioral, and environmental factors and the influence of these factors to explain how people become motivated in various situations and regulate their own behavior. The confidence one has in their skill or ability level is a strong indicator of future performance, resilience, and determination. These are important skills for new teachers as they face new tasks in their workplace.

Statement of the Problem

Education is facing a colossal teacher retention problem because half of newly credentialed teachers have been leaving the profession within the first 5 years of their careers (Delp, 2014). There is a lack of published literature regarding attitudes and beliefs of teachers towards induction requirements and how these requirements may affect teaching and retention.

Burke, Aubusson, Schuck, Buchanan, and Prescott (2015) claimed teachers who are "categorized as 'leavers' hold a significant preference for: a professional voice as opposed to receiving affirmation" (p. 248). However, further study is needed to formulate general understandings as to how induction requirements affect those who choose to leave the profession.

While there were few case studies that were identified in the literature review that addressed new teachers' beliefs and attitudes towards induction requirements, there were a couple of case studies that addressed this topic. In 2014, Gaikhorst, Beishuizen, Korstjens, and Volman found mixed results in their qualitative case study on teachers' perception toward induction. Some of the teachers reported positive perceptions, while others reported negative perceptions. Therefore, showing a need for further research with additional populations. Another case study by Williams and Gillham (2016) showed that teachers feel that induction is a waste of time. Thus, showing a different perspective from much of the research, that mostly focuses on the benefits of induction. Instead, Williams and Gillham's case study revealed an alternate perspective of teacher perceptions, showing that teachers demonstrated opinions against induction. These case studies are important because they show a potential issue, that could ultimately affect new teacher' decisions to enter the field of education or remain in education, when faced with the requirements of induction.

Purpose of the Study

The purpose of the study was to explore and examine the effect on teaching and retention of novice teachers based on their beliefs and attitudes regarding California induction policy requirements, after completing a state-required induction program leading to a clear California teaching credential. The attitudes and beliefs of 11 new teachers who recently completed an induction program were analyzed through interviews and supporting artifacts. The results were

intended to provide insight into the attitudes and beliefs of new teachers toward induction and reveal how these attitudes could affect whether other potential teachers go into teaching or newly trained teachers stay in the profession based on induction requirements. The qualitative method also provided the ability to ask follow-up questions during one-on-one interviews based on the data collected. In addition, the study added to the body of research regarding the attitudes and beliefs of new teachers towards induction practices and policies.

Unlike other professions, teaching does not have a slow release of responsibilities; teachers need to be prepared for their first year of teaching (Israel, Kamman, McCray, & Sindelar, 2014). Therefore, Burke et al. (2015) argue that it is important to understand what types of support are perceived as most desirable by new teachers to help keep them in the field. If the support is perceived as unwanted or unhelpful, it could have an adverse effect. This study is relevant to the field of education because there is a worldwide teacher shortage and high attrition rates. Research shows that induction positively impacts teacher retention and quality (Allen, 2013; Ingersoll, 2012; Kang & Berliner, 2012; Kearney, 2014). Adding to the existing body of induction research, by investigating specifically how new teachers perceive induction policy requirements, was helpful to understanding how attitudes toward induction requirements for licensure could potentially affect the teaching pool. Although current research has revealed that induction programs assist with effective teaching and attrition rates (Allen, 2013; Ingersoll, 2012; Kang & Berliner, 2012; Kearney, 2014), there is a scarcity of research that examines and analyzes the attitudes and beliefs of novice teachers who have completed an induction program. This study should exist because there is a gap in published research on new teachers' attitudes and beliefs towards induction requirements.

Research Question

How do the attitudes and beliefs of new teachers, regarding California induction policy requirements, affect teaching and retention after participating in a university-based online induction program?

Rationale, Relevance, and Significance of the Study

This qualitative case study was designed to investigate the attitudes and beliefs of teachers who have completed an early completion option of induction, in terms of how the novice teachers feel about the induction process policy as it relates to their teaching practices and desire to continue teaching. The reason or rationale for this study was to publicly reveal the voices of new teachers. This is relevant and pertinent in today's educational climate to see how policies that are meant to help and support new teachers are being perceived.

This study was significant and worthy of study because it helps inform policymakers as to how new teachers are responding to current policy and how these attitudes and beliefs could affect future teacher retention and attrition rates. The Learning Policy Institute surveyed districts in California and found that during the 2017–2018 school year 74% of districts were unable to fill all their teaching vacancies with fully credentialed teachers (Darling-Hammond, Sutcher, & Carver-Thomas, 2018). Therefore, case studies play an important role in solving the issue of the teacher shortage. Darling-Hammond et al. (2018) recommended evidence-based practices, of using surveys, to collect data on teacher's experiences and perceptions to assist with policy considerations. The perceptions of teachers, as they relate to induction policy, was explored by collecting data through initial interviews, follow-up interviews, and archived artifacts to analyze their related interpretations and meanings of new teachers' perceptions.

Definition of Terms

While these terms are familiar to most California educators, a glossary of terms is provided for those not involved in the field of induction or familiar with CTC terms.

California commission on teacher credentialing (CTC) preconditions: The preconditions for teacher education induction programs (CTC, 2016, p. 1) refer to the six requirements that must be met by a teacher induction program to receive initial approval and subsequent accreditation.

California commission on teacher credentialing (CTC) teacher induction program standards: The induction program standards (CTC, 2016, pp. 2–4) refer to the six standards that must be applied when designing a teacher induction program to receive initial approval. "Program standards delineate the requirements an institution must meet in order to sponsor that program for candidates. Once approved by the Commission, programs maintain that approval through cyclical Accreditation cycle activities" (CTC, 2018, para. 2).

California induction requirements: California induction requirements refer to the state policy that teachers must participate in a state approved induction program, within the first five years of teaching, to obtain a clear credential after earning a preliminary credential (CTC, 2016).

California standards for the teaching profession: The California standards for the teaching profession (CSTP) are the six teaching standards that new teachers are expected to address through induction. "Professional teaching standards provide the foundational expectations for the teacher induction program, with the expectation that candidates will progress toward mastery of the CSTP during their participation in induction" (CTC, 2018, para. 3).

Continuum of teaching practice: The continuum of teaching practice (COP) (CTC, 2012) is a companion document to the CSTP that breaks down the six standards into detailed elements.

"Candidates, mentors, and program leaders may choose [to] use the COP mentoring instrument as [a] tool to measure candidate growth throughout program participation" (CTC, 2018, para. 4).

Credential: "California has a two-tiered credentialing system for teachers. Preliminary programs prepare candidates to obtain an initial teaching credential through successful completion of required coursework, fieldwork, and a performance demonstration of their knowledge, skills, and abilities" (CTC, 2018, para. 1). To teach in the state of California, individuals must earn a teaching credential in the area or areas they will teach. The CTC awards several types of teaching credentials based on coursework and classroom field experience, including the following: Multiple Subject Teaching Credential for elementary school, Single Subject Teaching Credential for high school, and Education Specialist Instruction Credential for special education (CTC, 2017). Teachers may earn more than one credential.

General education induction candidates: General education induction candidates are teachers teaching K–12 education, with a focus on multiple subjects (traditionally elementary school) or single subjects (traditionally middle and high schools). These teachers are teaching in classrooms without a focus on special education.

Individual learning plans: ILP goals are a requirement for California induction. "With mentor-based support[,] candidates develop their ILP goals addressing areas within the CSTP standard categories. Within the ILP[,] candidates' practice and refine effective teaching practices through focused cycles of inquiry cycles, professional support, and the practice of reflection" (CTC, 2018, para. 3).

Induction program: "The second tier of preparation is a 2-year job-embedded individualized induction program that is focused on extensive support and mentoring to new teachers in their first and second year of teaching" (CTC, 2018, para. 1). In California,

participation in an induction program is mandatory to finalize a teaching credential and transfer it from preliminary status to clear status.

Licensure: Teacher licensing varies from state-to-state. In California licensure requires many steps depending on the type of credential a teacher holds and where it was earned. Some of the steps include obtaining a bachelor's degree, passing competency tests, earning a preliminary teaching credential, and completing a teacher induction program to earn a clear credential. A full list of licensure requirements, and the differing routes, can be viewed on the CTC website https://www.ctc.ca.gov/credentials/req-teaching (2019).

Special education: Teachers who are credentialed to teach students with disabilities are also referred to as SPED teachers or Education Specialist in California. Specializations include, but are not limited to, Early Childhood Special Education, Mild/Moderate Disabilities, Moderate/Severe Disabilities, Visual Impairments, Physical and Health Impairments, and Deaf and Hard of Hearing (CTC, 2018).

University-based online induction programs: University-based online induction programs are created as an option for teachers to obtain their clear credentials, for those teachers who do not have access to an induction program through a school district.

Assumptions, Delimitations, and Limitations

Assumptions, delimitations, and limitations are biases that must be addressed by the researcher to help ensure the results of a study are not inappropriately affected. The limitations and delimitations of this research design include the possible biases of conducting a qualitative case study. The following sections address the specific assumptions, delimitations, and limitations that were identified to minimize bias, focus the research, and identify potential weaknesses, to help ensure the credibility of the case study.

Assumptions

Acknowledging assumptions consists of identifying the experience and knowledge a researcher has towards a subject (Birks & Mills, 2013). My own assumptions toward the attitudes and beliefs of new teachers toward induction have been formed from my past interactions with induction candidates and induction program development. To analyze one's self-assumptions, Birks and Mills (2013) identify factors that should be acknowledged including philosophical position, what one already knows, expectations from the research, and any apprehension or fears toward the study. Philosophically, I believe in the benefits of induction. Based on my previous research and interactions with induction programs, I have seen first-hand how induction can successfully offer new teachers the support they need to feel more confident in their skill level. However, the study is not addressing the benefits of induction, but rather the attitudes and beliefs of new teachers toward induction policy requirements. In the past, I heard the complaints of many new teachers that they are required to participate in induction for licensure. Yet, I expected the results of attitudes and beliefs of the teachers in this study to be positive toward induction if they saw the benefits of mentoring after they had completed a program. While I did not have any fears or apprehension about my ability to complete the research process, the limitation of the sampled population may have created a skewed data set that reflects only this group of teachers who had similar experiences.

Delimitations

The purpose of delimitations is to narrow the scope of a study (Creswell, 2012). Due to the proximity and availability I had to recent induction completers, I accessed a group of teachers who had similar experiences from a common induction program. In addition, from this induction program, I narrowed the participants further by interviewing only candidates who were granted

an early completion option (ECO) due to prior training or teaching experience. Finally, another delimitation I imposed on this study was to pose open-ended questions and allow participants the opportunity to share whatever they want regarding their experiences to capture their attitudes and beliefs.

Limitations

The purpose of limitations is to identify potential weaknesses of the study (Creswell, 2012). The first limitation of this study was that it is specific to a group of people who all completed the same program. Therefore, the results are not generalizable. Second, since the interview sample came from candidates who participated in the same program, this limited the size of the study based on the willingness of potential new teachers to be a part of research. Third, there were time limits for completing the dissertation study. Due to the timing of the study, only new teachers who were granted an early completion option (ECO) due to prior training or teaching experience, were interviewed. Since they may have only had to complete one year of induction instead of the usually required two years, this could skew their attitudes and beliefs towards induction policy requirements. In addition, these teachers may have higher self-efficacy than less experienced teachers who are also required to participate in induction.

To address the assumptions, limitations, and delimitations of this study, I triangulated the data through initial interviews, follow-up interviews, and archival data. I employed data checking and code for themes before writing the data analysis. In addition, the data analysis was shared through member checking to validate authenticity. Additions to the results were added based on participants' feedback. Because the participants were afforded the opportunity for personal reflection of the interview data and the open-ended interviews was coded into common themes, the resulting study has credibility.

Chapter 1 Summary

Chapter 1 introduced the worldwide problem of a teacher shortage and one of the solutions is the requirement for new teachers to participate in an induction program (Darling-Hammond, 2010). The concept of implementing a required induction program to assist with teacher retention rates, has been adopted by California for licensure for a clear credential. (CTC, 2018). The research question addressed the attitudes and beliefs of new teachers about California induction policy requirements to add to the body of data reflecting teacher's opinions to inform policy decisions. In addition, this chapter included a definition of important terms related to the study and gave an overview of the assumptions, delimitations, and limitations that must be addressed to minimize biases.

Looking ahead, this qualitative case study addresses the attitudes and beliefs of 11 new general education teachers about California induction policy requirements. All the participants participated in a university-based online induction program. Chapter 1 gives a general overview of the research study and key concepts. Chapter 2 is a literature review, which provides a comprehensive look at previous induction research. In addition, the second chapter explains the conceptual framework which is based on Bandura's (1977) theory of self-efficacy and social cognitive theory (1986). Chapter 3 addresses the research design, including a detailed outline of the data collection and data analysis methods. Also, in the third chapter, the research question, purpose and design of the study, research population and sample method, data collection, identification of attributes, data analysis procedures, limitations, validation, expected findings, and ethical issues are described in detail. Chapter 4 is a complete outline of the data analysis and results. The final section, Chapter 5, addresses conclusions from the study, their meaning, and significance to the education field regarding new literature on induction.

Chapter 2: Literature Review

Introduction to the Literature Review

Induction is not a term used exclusively in education. However, in education the term has been used to mean mentoring (Wong, 2004), orientation (Martinez, 1994), and professional socialization (Kearney, 2015; Lawson, 1992). Smith and Ingersoll (2004) helped to define *induction* as it is currently known in education; "there has been a growth of support, guidance, and orientation programs-collectively known as induction-for beginning elementary and secondary teachers during the transition into their first teaching jobs" (p. 681). This definition that summarizes the key elements of an effective induction program is the widely accepted understanding of *induction*.

The purpose of this literature review is to examine and summarize previous research on induction. Induction has a historical context in education. Teacher attrition and shortages were first identified in the early 1980s, as enrollment increased in schools in the United States (Kang & Berliner, 2012). In California, a new teacher is defined as a teacher within their first five years of teaching working on a 5-year preliminary credential. By the 1990–1991 school year, four out of 10 new teachers nationally were participating in an induction program (Smith & Ingersoll, 2004). Since the topic of induction has been analyzed over the last 40 years, looking at past research can be used to identify trends. The findings of each additional article have added to the depth of induction research.

Currently in California, induction is implemented through a 2-year job-embedded individualized program that is focused on extensive support and mentoring to new teachers in their first and second year of teaching (CTC, 2018, December). Induction is required in California because it assists with supporting new teachers in knowledge and skill development,

challenges in the classroom, and expanding preliminary program (otherwise known as credential program) teachings (CTC, 2016). While the benefits to induction are widely researched and discussed in educational literature, there is a gap in reporting teachers' attitudes or beliefs about the policy requirement to complete induction for licensure.

Becoming a teacher in California is a long and involved process. Current licensure includes a 4-year bachelor's degree, a 2- or 3-semester preservice teaching program, as well as a several of state-required tests and CPR certification. Successful completion of these initial steps results in a preliminary teaching credential. Then, within the first 5 years of acquiring a preliminary credential, a new teacher must procure a teaching contract and complete a 2-year new teacher induction program (CTC, 2018, December). Once this step is successfully completed, the California teacher receives a clear teaching credential.

New teachers face many challenges and struggles as they begin their careers. It is widely accepted that new teacher induction offers support that helps with teachers' confidence levels and attrition rates. Ingersoll and Strong (2011) leading researchers of teacher induction programs states, "support and assistance for beginning teachers have a positive impact on three sets of outcomes: teacher commitment and retention, teacher classroom instructional practices, and student achievement" (p. 201).

Research Context, Significance, and Problem Statement

This study took place with general education induction graduates who recently completed an induction program the previous school year. The focus was on the attitudes and beliefs new teachers have regarding induction programs that are required of them. "Teacher effectiveness has rapidly risen to the top of the education policy agenda, as many nations have become convinced that teacher preparation is one of the most important school-related factors in student

achievement (OECD, as cited by Darling-Hammond, 2017, p. 291). Since teacher preparation has become required in California (CTC, 2016), new teachers are faced with mandates that were not required of their predecessors. Research has shown that supporting new teachers through induction helps with teacher development, teacher quality, and teacher retention (Allen, 2013). New teachers in California are not given a choice to participate in induction programs. California preliminary credentials are only valid for 5 years. To obtain a California clear credential, teachers must participate in induction program during these first five years or apply for an extension.

Significance

The significance of this research study is the importance of analyzing the attitudes and beliefs of new teachers that was revealed in the interviews, which can be used to help induction program directors and the California Commission on Teacher Credentialing (CTC) policymakers to make informed decisions concerning future decisions in induction programs. This is important because the teacher shortage in California is predicted to continue to grow (Sutcher et al., 2016) and policymakers need to understand new teachers' attitudes and beliefs on policy, that may affect their entering or avoiding the teaching profession. This study also allows new teachers to reflect critically on their attitudes and beliefs on current policy, which helps them with awareness of the connections among legislation, professional growth, and quality education.

Purpose Statement and Research Question

The purpose of the study was to explore and examine the effect on teaching and retention of novice teachers based on their beliefs and attitudes regarding California induction policy requirements, after the teachers have completing a state-required induction program leading to a clear California teaching credential.

How do the attitudes and beliefs of new teachers, regarding California induction policy requirements, affect teaching and retention after participating in a university-based online induction program?

Conceptual Framework

The conceptual framework for this research is based on Bandura's theory of self-efficacy (1977) and social cognitive theory (1986). These theories were discussed when looking at the attitudes and beliefs of new teachers towards induction. The way teacher's view their ability and past experiences, greatly influences their future teaching. By using Bandura's points of view and past research, connections were made to help explain why the attitudes and beliefs of new teachers need to be examined and how this research fits into what we already know about new teachers and their performance.

Albert Bandura's Theory of Self-Efficacy

Bandura's (1977) theory of self-efficacy was applied as the conceptual framework for this study. Self-efficacy refers to how people believe they will be able to succeed at tasks or in clearly defined situations. These beliefs can affect the outcomes of the tasks or situations. Analyzing self-efficacy can be used as "an integrative theoretical framework to explain and predict psychological changes achieved by different modes of treatment" (Bandura, 1977, p. 191). Bandura asserted that self-efficacy can be a strong predictor of future performance because people tend to judge their "future performance based on past experiences or past performance" (1977, p. 193).

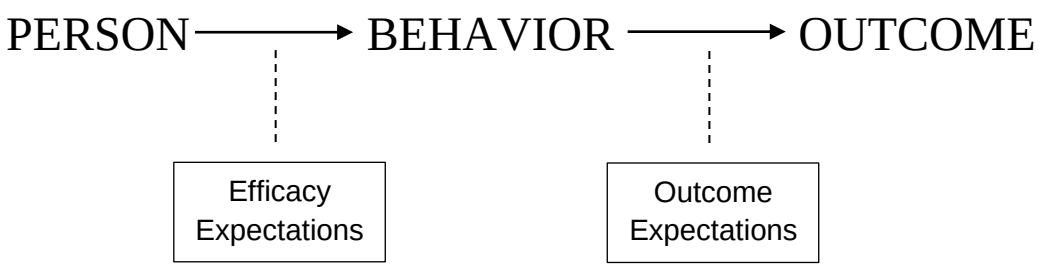

Figure 1. Differences between efficacy expectations and outcome expectations. From "Self-efficacy: Toward a unifying theory of behavioral change," by A. Bandura, 1977. Psychological Review, 84(2), p. 193. Copyright 1977 by the American Psychological Association.

Perceived self-efficacy helps determine the types of interactions in which people will engage or disengage, based on their expectations of what they think will occur.

> Efficacy beliefs play a central role in the self-regulation of motivation through goal challenges and outcome expectations. It is partly on the basis of efficacy beliefs that people choose what challenges to undertake, how much effort to expend in the endeavor, how long to persevere in the face of obstacles and failures, and whether failures are motivating or demoralizing. (Bandura, 2001, p. 10)

In addition to the self-reflection with which people address new situations, Bandura (1993) also claimed that people perceive the controllability of their environment. Through studying people's perceived self-efficacy in cognitive development and functioning, he found

> People who are plagued with self-doubts anticipate the futility of efforts to modify their life situation. They produce little change even in environments that provide many potential opportunities. But those who have a firm belief in their efficacy, through ingenuity and perseverance, figure out ways of exercising some control, even in

> environments containing limited opportunities and many constraints. (Bandura, 1993, p. 125)

Therefore, the confidence one has in their skill or ability level, is a strong indicator of future performance, resilience, and determination.

Albert Bandura's Social Cognitive Theory

In 1986, Bandura developed a social cognitive theory which expanded on the theory of self-efficacy. In a video by Bandura et al. (2003), "Learning would be laborious, not to mention hazardous, if people had to rely solely on direct experience to tell them what to do. However, humans have evolved an advanced capacity for observational learning" (11:06). Bandura went on to share that his research revealed four processes to observational learning. First, learners must focus their attention on a modeled event. Second, the learners must translate their observations into a symbolic representation that has meaning to them. Third, the learners need to transform what they learned into an action in which they can participate. Fourth, the learners need a motivational incentive to practice what they have observed. While Bandura points out that all four processes add to the observational learning process, he ascertains that the most effective way for learners to internalize a new action is through active participation (Kessler, 2013).

Bandura et al. (2003) shared that "a comprehensive theory must explain how people acquire competencies, values, and styles of behavior, but it must also explain how people motivate and regulate their behavior" (2:30). Social cognitive theory meets these requirements and ascertains that people develop competencies and values through the three tenants of personal, behavioral, and environmental experiences and that each of these elements influence each other through "triadic reciprocal causation" (Bandura et al., 2003, 5:37). Through these three types of experiences, people develop self-directedness.

Self-Efficacy Related to New Teachers

Self-efficacy as defined by Bandura (1977) is how people believe they will be able to succeed at tasks or in clearly defined situations and leads to the firm belief in the worth in what they are doing. This can be applied to new teachers who are using their past experiences to act as the role of a teacher. According to Bandura et al. (2003), "Self-efficacy is a person's belief in their ability to produce desired results by their own actions" (20:35). Therefore, new teachers must have a strong sense of teaching ability to successfully maintain a positive attitude and cognitive fortitude to continue their practice. When Bandura introduced self-efficacy in 1977, his claim was that self-efficacy is a predictor of future performance because people tend to judge their future performance based on past experiences or past performance.

As with everything in life, perceptions are important, and perceptions of new teachers can affect teaching and learning. New teachers need to be supported in developing their perceptions of themselves, their ability, and their students. Self-efficacy in teachers affects all aspects of teaching and learning. "Mastery expectations influence how people perceive opportunities and obstacles in the environment and affect choices, effort, and endurance when working with difficult tasks" (Bandura, 2006, p. 69). Without self-efficacy, new teachers are more apt to feel less confident with their skills and become burnt-out in the profession. Therefore, developing perceptions of self-efficacy in new teachers is crucial as they face many new and difficult challenges in teaching.

If self-efficacy is a future predictor, then teachers who performed well in the classroom in the past will have the confidence to believe they will perform well in the future. This is an example of outcome expectation. "Teachers' self-efficacy is considered one of the key motivational beliefs influencing professional behaviors including persistence in the career, job

satisfaction, as well as student engagement, and achievement" (George, Richardson, & Watt, 2018, p. 218). In the classroom, teachers' self-efficacy is tied to their motivation and confidence. In turn, when self-efficacy is positive, studies have shown that student achievement improves. In addition, when teachers have high levels of self-efficacy, they also are better able to handle stress and have less risk of burnout, which helps to lower attrition rates (Helms-Lorenz et al., 2013; Skaalvik & Skaalvik, 2014). Therefore, it is important for new teachers receive positive feedback from a mentor who builds up their confidence and self-efficacy levels. Bandura (1977) stated "that psychological procedures, whatever their form, alter the level and strength of self-efficacy" (p. 191). In the case of new teacher induction, mentors use modeling, observations and videos, and action research strategies to support new teachers. As indicated in Figure 2, these modes of instruction reflect the performance accomplishments, vicarious experiences, and verbal persuasion, impacting new-teacher self-efficacy. These best practices have been applied, studied, and identified worldwide.

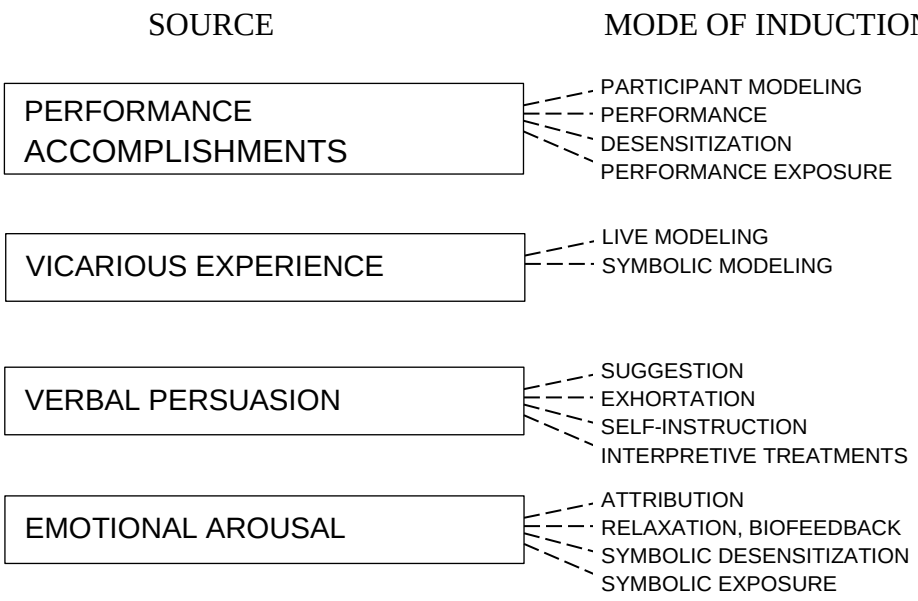

Figure 2. Efficacy expectations. Diagrammatic representation of the major sources of efficacy information and the principal sources through which different modes of treatment operate. From "Self-efficacy: Toward a unifying theory of behavioral change," by A. Bandura, 1977. Psychological Review, 84(2), p. 195. Copyright 1977 by the American Psychological Association.

Summary of Self-Efficacy and Social Cognitive Theory Related to the Case Study

When looking at the attitudes and beliefs of new teachers towards induction, it is important to understand the self-efficacy (Bandura, 1977) of the teacher. If a new teacher believes in the success of her teaching skill, her confidence will show in the interview. Similarly, if a teacher is less confident, this will also become evident in the interview. The self-efficacy of the teachers may affect their attitudes and beliefs. When discussing the new teachers' changes in attitude toward induction after completing the program, based on what is shared, I was able to see if social cognitive theory (Bandura, 1986) played a role. This would be evident if the teachers

were able to experience modeling with a mentor, translate the experience to make it meaningful, practice it in the classroom, and see the importance of implementing it in the classroom.

Review of Research Literature and Methodological Literature

The literature review is a comprehensive overview of the research literature and methodological literature available regarding new teacher induction. There is an "existing body of literature pertaining to the benefits, challenges and implications of mentoring as professional learning for mentors as well as mentees in K–12 schools" (Shanks, 2017, p. 162). The literature on induction is extensive and the benefits of induction have been researched worldwide and led to the development of induction programs in many countries. The literature review examined five major themes: the advantages and disadvantages of induction programs, the role of mentors, attrition and retention rates, world-wide induction policies, and the role of self-efficacy in induction programs.

Induction Advantages

Induction has many benefits in new teachers' transitions into the profession and attrition rates. Through coaching, observations, and having a mentor support in fine tuning their teaching skills, new teachers are better equipped to assimilate into the teaching profession. In turn, mentoring helps reduce attrition rates (Callahan, 2016; DeAngelis, Wall, & Che, 2013; Delp, 2014; Helms-Lorenz et al., 2013; Ingersoll, 2012).

> Our findings of direct associations between the quality and comprehensiveness of early career support and teachers' intentions and decisions, even when controlling for perceived preparation program quality provides further evidence of the importance of mentoring and induction quality, rather than simply availability. (DeAngelis et al., p. 351)

Thus, there are a variety of arguments that support new teacher induction.

Coaching and observations. One of the most important advantages to induction is the opportunity for new teachers to work collaboratively with a mentor with teaching experience. "Teachers benefit from coaching and being observed" (Ingersoll & Strong, 2011, p. 192). However just like new teachers need coaching, mentors need coaching and training to help new teachers. Gardiner (2017) suggested mentor frames help mentors guide new teachers in grappling with new ideas. These frames, or guidelines, assist in the coaching process by guiding conversations between mentors and mentees.

Furthermore, coaching sessions and structured observations have been identified through international research as exemplary of effective induction programs (Kearney, 2014). When induction programs are implemented as they are intended, they are designed to give new teachers an opportunity to be observed by their mentors in a non-evaluative way. Best mentoring practices include not only the mentee being observed, but also opportunities for the new teacher to observe other teachers (Womack-Wynne et al., 2011). Thus, the collaborative process is open to more than just the mentor and the mentee, allowing a wider base of support for the new teacher.

Assimilation to teaching. In a qualitative study done by Nasser-Abu Alhija and Fresko (2016), new teacher questionnaires were analyzed. The teacher responses showed that most teachers found induction to be a helpful process. Many thought a year of induction was enough; however, a small group suggested induction should last longer. Induction may be an important part of assimilation into the profession and professional development because it allows new teachers to feel confident in their craft and supported through new challenges. The reality is that many new teachers do not feel confident when they begin their profession.

Another qualitative study by Duggan et al. (2017) looked at the data from weekly diary responses, open-ended questions and multiple-choice answers provided by new teachers. The study revealed that survival was a recurring theme throughout the first year of teaching. Coaching through induction allows new teachers to develop effective instructional skills with the scaffold and guidance of an experienced teacher. Thus, allowing teachers more opportunities for authentic teaching instead of merely surviving in the classroom.

Reduces bias. Because the number of English Learners (EL) is increasing every year in schools across the nation, novice teachers need to learn specific strategies and scaffolding techniques for teaching this population. So, they are ready to support all students in learning, novice teachers require specific training on EL needs in mainstream classrooms. New teacher induction that includes explicit coaching on EL instructional strategies eliminates bias and previous misperceptions of the limitations of ELs, which helps new teachers have higher standards and expectations for EL students (Russell, 2015).

Skill level and attrition rates. Low skill levels and high attrition rates of teachers is a global issue. “Many countries have difficulties in attracting and retaining teachers and pressure has increased on schools and teachers to improve pupil outcomes (Eurydice Network, 2012) and reduce gaps in attainment (e.g. Scottish Government, 2016)” (Shanks, 2017, p. 158). In response, new-teacher support programs and new-teacher induction programs have developed with common themes and expectations globally (Darling-Hammond, 2017). Successful mentor programs should include support in inquiry-based learning and reflective-teaching practices (Ha, 2014). In a qualitative study of different teaching rates and retention, Helms-Lorenz, Van de Grift, and Maulana (2015) claimed that the discrepancy between the skills of new teachers and

retiring teachers can be narrowed through induction programs. This is important because teachers with lower-skill levels are more likely to leave the profession.

Factors that motivate teachers to stay in education include autonomy, creativity in lessons, relationships, support, meaningful experiences with students, and planning (He, Cooper, & Tangredi, 2015). These factors are important to know to help meet the challenge of recruiting and retaining teachers in urban schools. In urban settings, teachers are more likely to burn out faster (Gaikhorst et al., 2014; He et al., 2015; LoCascio, Smeaton, & Waters, 2016). In fact, teachers in low socioeconomic schools did not think the advantages of induction would affect their staying in the field of teaching (LoCascio et al., 2016). Helms-Lorenz et al. (2015) argue that induction may assist with the teaching shortage and declining teaching skills by providing support to new teachers.

Induction Disadvantages

While induction has benefits in new teachers' transitions into the profession and attrition rates, there are also disadvantages to induction. Induction comes with a cost to the teachers and the institutions providing the mentors and resources because there are many fiscal impacts on implementing induction programs to assist new teachers (Villar & Strong, 2007). In addition, the expectations around mentoring and evaluating new teachers are inconsistent and can cause confusion in expectations between mentors and new teachers.

The fiscal impact of induction. LoCascio et al. (2016) found that the benefits of induction did not necessarily outweigh some of the disadvantages, specifically, when it comes to the fiscal impact of induction on education systems. Induction programs are expensive and need to be tailored to teachers' needs. This idea that induction should be individualized aligns with many worldwide policies that require induction for licensure. Yet, how these expenses for

individualization are generally the responsibility of the educational system or a shared or total responsibility of the teachers, depending on local funding allocations.

Inconsistency in mentoring models. Mentoring has been used to enhance induction and reduce professional isolation because mentoring is based on relationships. However, mentoring models are inconsistent across programs, as well as among mentors within programs, depending on their training and level of accordance. Paris (2013) conducted a mixed-methods study that collected a series of surveys, interviews, and photographic evidence at various times throughout the school year. She found that supportive mentors can have a positive effect on attrition and curriculum renewal; therefore, it is important for programs to apply supportive mentoring approaches, such as reciprocal mentoring. Although in this model one teacher is more skilled than the other, both benefit from the relationship and experience offered through reciprocal mentoring.

In contrast, when new teachers do not feel supported by their assigned mentors, they often self-select another mentor. According to LaVine (2016)

> They [new P.E. teachers] selected other teachers who either shared a similar philosophy and/or were a ‘specials’ [elective or non-academic subject] teacher like them. Most important, these mentors provided them with emotional support and guidance about educational issues and professional growth related to their content area early in their careers. (p. 304)

Attracting and retaining teachers is a worldwide issue. New teacher support through induction is a worldwide practice that has been recognized as beneficial, yet the ways it is required and implemented vary greatly (Shanks, 2017). Induction programs can share and learn best practices

from one another to help develop consistency in mentoring models to ensure new teachers receive the support they need.

Evaluative induction. While most induction programs separate new teacher mentoring and evaluation, some programs integrate the two. When mentors also serve as evaluators, the relationship is different between the mentor and the mentee. Hanawalt (2018) confirmed a link between some induction programs and teacher evaluation. These concerns had previously been raised in reviews by Atkinson (2012) and Devos (2010). The push for accountability of all teachers sometimes blurs the lines of support and review. This puts induction programs at risk of being less effective at supporting new teachers.

Summary of the Advantages and Disadvantages of Induction

Globally, the education system has decided that the advantages of induction outweigh the disadvantages. In Singapore, Australia, Ontario (Canada) and parts of the United States, induction benefits new teachers "through skillful mentoring, collaborative planning and reduced teaching loads that allow time for in-service seminars and careful building of a repertoire of practice" (Darling-Hammond, 2017, p. 307). Focused induction activities help lower attrition rates in the field (Shanks, 2017). However, while the advantages outweigh the disadvantages, the challenges for induction still need to be considered. Induction is a costly endeavor that either falls to the responsibility of a school system or a teacher. In addition, inconsistent mentoring can have a negative effect on new teachers and their experience in a new career (Robson & Mtika, 2017). Also, when evaluation is tied to induction, it can have a negative connotation for a new teacher. Both disadvantages can result in more teachers leaving the profession. Therefore, the goal of supporting and mentoring new teachers must be the focus of induction if the advantages are to outweigh the disadvantages.

The Role of the Mentor

The role of the mentor is to support a new teacher while executing the requirements of an induction program. For this process to be successful, mentor roles need to be clearly defined. Working alongside a site administrator can help with determining whether the role of a mentor is of a supportive or evaluative nature.

Clarifying roles. When new teachers enter an induction program, the teacher's beliefs and the mentor's beliefs regarding the need to meet or frequency of meetings may differ. Therefore, it is important for programs to clarify roles and expectations (Kidd, 2015). Induction programs usually occur on-site, within a district, or with a university partner. Robson and Mtika (2017) explored the role of mentors who were supporting new teachers in the field but were assigned their position through a partner university. In their qualitative study, they conducted five semistructured focus group interviews. Their study revealed that partnerships between universities and the field can lead to unclear roles for mentors. They also revealed that inquiry or action research is beneficial for new teachers to put theory into practice and can give a common ground for discussion between new teachers and university mentors. If mentor roles are clearly defined, university induction partnerships can be extremely beneficial. In a longitudinal study, over a five-year period, Allen (2013) collected questionnaires from new teachers in induction programs with university assigned mentors. The evidence indicated that novice teachers with mentoring support (specifically university support of curriculum) helped with teacher development and retention. Yet again, the research showed that the key to a successful mentor and mentee relationship is clearly defined roles.

Mentor responsibilities. Whether an induction program is being delivered through a school site, by a districtwide program, or with a university partner, clearly defining mentor

responsibilities will assist with program implementation. Mentor responsibilities vary from program to program. Some programs expect their mentors to serve in an evaluative role, while others do not. Some programs may expect their mentors to take on supportive roles that have a greater purpose in raising confidence levels in new teachers. Mentor responsibilities are determined based on the goals of the induction program and should be clearly defined (Israel et al., 2014; Smith & Ingersoll, 2004; Williams & Gillham, 2016).

Evaluative. In some cases, the role of the induction mentor is evaluative. Some of the literature on induction shows how evaluation is used as part of new teacher mentoring. The purpose of a study conducted by Israel et al. (2014)

> was to investigate the types of emotional and professional support provided in a new-teacher mentoring program that included a well-structured teacher evaluation component. It was conducted primarily due to inconsistent findings in the literature regarding the role of evaluation within the mentoring and induction of new special educators and to determine induction and mentoring practices that lead to improved SET performance and potentially reduced attrition. (p. 59)

They found three main points that indicated evaluation and induction could successfully be interrelated. First, incorporating evaluation provided guidance for mentors' feedback allowing the process to be more focused. Second, emotional supports and professional supports were interrelated, especially when new teachers needed emotional support to address their required professional support. Third, most of the new teachers did not identify a negative connotation between evaluation and mentoring. In fact, despite a "difference in comfort level, all new SETs [special education teachers] acknowledged that, ultimately, the mentoring provided by the

district-assigned mentors helped improve their instructional practices" (Israel et al., 2014, p. 59), justifying a positive correlation between induction and evaluation.

In a qualitative study conducted by Hanawalt (2018), it was found that "not only did evaluation play a critical role in the daily experiences of the beginning art teachers in the study, it also was the focus of many of the induction programs described by participants" (p. 98). In this case, the new teachers shared, through observations and interviews, that 50% of their evaluations were based on teacher performance and 50% student performance. Again, because evaluation and induction were the expectation of new teachers, there was not a negative correlation.

Supportive. However, tying induction to evaluation is not expected in all states. In fact, in California, they are intentionally unrelated. California follows the international model in which evaluation is not a key tenant of induction programs (Darling-Hammond, 2012). Shanks (2017) used meta-analysis to look at qualitative studies from six countries and found that in these countries, new teacher mentoring includes the following key elements: critical reflective practice, inquiry into professional practice, collaboration and professional learning for both mentees and mentors. Other best mentoring practices identified by Womack-Wynne et al. (2011) include the following: relationship building, contact before the first day of school, common practices between mentor and mentee (meaning same-subject teaching), mentor-provided support for deficiencies, observing other teachers, support and guidance by school personnel, planning with mentor, weekly meetings with mentor, clear expectations, mentor training and mentee accountability. Effective induction programs that are supportive in nature, include many of these identified elements. In these cases, induction is meant to be a support for new teachers that is not related to evaluation.

Importance of the mentor. Mentors are a critical element of effective induction programs. The importance of the mentor has been justified through many interviews with new teachers who have participated in induction programs. One such study was carried out by Womack-Wynne et al. (2011) who used a mixed method approach to look at teachers' perceptions of mentoring. They found a positive correlation between new teachers' feelings of empowerment and job satisfaction with supportive mentoring programs. In addition, elementary teachers described a more positive experience with induction than middle and high school teachers did.

Mentors can have a positive effect on the trajectory of a new teacher's career. Charner-Laird, Szczesiul, Kirkpatrick, Gordon, and Watson (2016) followed 17 new teachers through a longitudinal study. All the participants had completed preservice teaching from the same university and moved into a master's program together as beginning teachers. They communicated that the induction mentor should not just provide new teachers with resources and ideas, but to "engage them in critical and evaluative conversations about pedagogy and practice" (p. 13). When a mentor helps to provide "structured opportunities for larger groups of teachers to participate in critical conversations" (p. 13) the new teachers become part of a team and know how to seek help, which benefits them after the induction scaffold is removed.

Role of the administrator. In addition to the induction mentor, site administrators also play an important role in induction success. In 2014, Delp conducted interviews of 15 novice teachers who were participating in a site-based induction program. These teachers reported that principals were not intentional with induction support. In fact, induction was left to the schools with limited and unstructured meetings; and the induction candidates felt like induction was not a priority for principals. As a result, induction was not important to new teachers either. Thus,

showing that the role of the principal in a site-based induction program is important. According to Delp when principals are not involved the experience is unimpressive.

In a similar study, Pogodzinski (2015) analyzed qualitative data with statistical significance and identified associations between new teachers' perceptions of working conditions and the frequency in which they would interact with their mentors. This study was significant because it informed the need for administrators to support new teachers and encourage them to work with their mentors. In addition, administrators need to focus on a school climate that encourages administrator-teacher collaboration as well as teacher-teacher collaboration. If new teachers rely solely on their mentors and do not learn how to turn to their administrators and colleagues for assistance, then they will not be prepared to have professional, collegial relationships after induction is completed.

The consistent theme in this literature review, is the importance of administrators' attitudes towards induction. Gaikhorst et al. (2014) used a descriptive study with semistructured interviews of eight beginning teachers and 11 principals from 11 urban primary schools in the Netherlands to study their perceptions of new-teacher mentoring experiences. Some new teachers found support to be positive and others negative. The difference was, for the teachers with negative perceptions, "the way that beginning teachers were guided in the school was less extensively formulated and documented" (Gaikhorst et al., 2014, p. 28). For new teachers to have positive mentoring experiences, the activities must be specific to them and their classrooms. New teachers need to see the connection between mentoring, classroom application, and what administrators expect to see. Induction should not be a stand-alone program; the goals of induction should incorporate administrator input and support.

Summarizing the role of the mentor. The role of the mentor must be clearly defined for induction programs so that new teachers' beliefs and mentors' beliefs of expectations align. In some induction programs the role of the induction mentor is evaluative and in others it is supportive. Both methods have shown positive results if the expectations are clear from the start of the program. Positive mentor and mentee relationships are critical in effective induction programs; these relationships can have a positive effect on a new teacher's career and encourage new teachers to stay in the profession. Along with the encouragement of a mentor, the supportive attitude of an administrator toward induction helps new teachers feel more confident about their teaching skills. When mentors encourage their mentees to participate in professional dialogue with their administrators and colleagues, the new teachers are more likely to remain teaching.

Induction and Attrition Rates

High attrition rates are a global issue in education. According to Kearney (2014) it is important to support new teachers because the issues new teachers face without support add to high attrition rates. Around the world, the teacher population is aging and retiring, which will cause a teacher shortage. The following discussion pertains to the high worldwide attrition rates and strategies to assist with retention in teaching.

Attrition. Teacher attrition and shortages were first identified in the early 1980s, as enrollment increased in schools in the United States (Kang & Berliner, 2012). Attrition rates have become an important focus in the current global education system. In Ingersoll's (2003) policy research on the reality of a teacher shortage, he revealed that indeed there is a shortage. He cited it has been. Therefore, understanding attrition rates and strategies to keep teachers in the profession are important to the global education field.

Highest attrition rates. He et al. (2015) conducted a longitudinal study looking at critical reflections of a teacher during the first five years of teaching. They claimed that factors that make teachers stay, such as autonomy, creativity in lessons, relationships, support, meaningful experiences with students, and planning, should be incorporated into effective induction programs. In addition, urban schools come with unique challenges, and teachers who are emotionally invested in their students' lives and learning can burnout from the intense pressure. Support in urban schools needs to be tailored to the specific needs of the new teachers and their students. For example, because many urban schools have high numbers of English Learners (ELs), there are "benefits of an EL-focused instructional coaching relationship as a support for inducting novice teachers into the profession in a diverse urban context" (Russell, 2015, p. 45). Supporting new teachers in urban schools with the diverse populations is a helpful technique in assisting them in becoming effective and confident teachers.

In addition to urban settings, high attrition rates in special education cause a shortage of qualified teachers for children with special needs (Jones, Youngs, & Frank, 2013). The high attrition rates in special education have been a focus of research for the past few decades. Smith and Ingersoll (2004) conducted a comprehensive quantitative study using nationally representative data from the 1999–2000 Schools and Staffing Survey. They discovered that

> Teachers whose main assignment field was special education were far more likely than other teachers to move or leave teaching. For instance, the odds that a special education teacher would leave were about 2 1/2 times higher than for other teachers. (p. 695)

A chronic shortage of special education teachers due to attrition means that there is a shortage of expert teachers in special education due to high turnover (Hagaman & Casey, 2018; McLeskey & Billingsley, 2008). To help solve this issue, education specialists are encouraged or required

(depending on location) to participate in induction programs. Based on a quarterly self-assessment using surveys and open-ended questions from six mentors and six induction candidates regarding their perceptions, Marshall et al. (2013) suggested that new special education teachers need mentors who have had similar teaching experiences and the relationships are more effective if the mentors have the same planning period as the mentee. Additionally, they found in South Carolina, some special education teachers leave education because of too much paperwork. Therefore, induction programs should have a clear criterion for mentor matching and the paperwork loads need to be minimized to assist with high attrition rates.

Reasons teachers leave the profession. Attrition of new teachers is an issue, but many teachers leave and later return to the profession. A longitudinal mixed-methods study by Lindqvist, Nordänger, and Carlsson (2014) looked at Swedish teachers' careers and considered life factors, such as parenting and family commitments, as reasons for attrition. Thus, showing that despite the importance of mentoring, induction, or support, sometimes there are life and family factors that outweigh the desire to teach.

Teachers who are on the edge of choosing to leave the profession need to feel more supported to assist with staying in the profession. Research on attrition rates have always focused on teacher burnout or other factors, such as salaries, rather than supports new teachers need to sustain them in teaching (Schaefer, Long, & Clandinin, 2012). How teachers feel about their ability is an important factor when continuing in the profession. Teachers' confidence levels directly tie to attrition rates and student achievement (Callahan, 2016). In a case study conducted by Gordon (2016), interviews with new physical education teachers revealed when teachers do not assimilate well into teaching, they become overwhelmed and are more likely to leave the profession. Thus, building new teachers' confidence levels, specifically by modeling strategies to

focus on student needs based on data and achievement, needs to be a key element in supporting these teachers and encouraging them to stay in the profession. Induction programs should focus on helping teachers assimilate into teaching and their school communities.

The cost of attrition. When teachers leave the profession, there are multiple costs to the field, including a worldwide teacher shortage and fiscal implications. Teacher attrition is a global issue that has been studied extensively by Linda Darling-Hammond allowing her to advise induction programs in California, nationally, and worldwide. Darling-Hammond (2017) reports that effective new-teacher-preparation programs incorporate induction around the world. She points out that while induction is available worldwide and there are key elements that are present in effective programs, the implementation and development of induction are regional. A model of regional decision-making has been adopted by the United States. There is no national policy for induction, yet the practice and implementation has been adopted on state levels.

When teachers leave education, the gradual reduction of the educational workforce costs the U.S. billions of dollars (Muller, Dodd, & Fiala, 2014). Similarly, other countries also face fiscal challenges with teacher attrition. Therefore, investing in teacher retention is important to the education profession. Policymakers need to fund mentoring and induction program (Robson & Mtika, 2017). Funding support programs for new teachers is a decision many policymakers are facing globally. Along with the commonalities of the structure and effective elements in induction, the cost of new teacher support programs is also a global challenge.

Assisting retention rates. Attrition should be looked at through the lens of sustaining teachers and giving them the skills, they need to feel confident in the profession (Schaefer et al., 2012). Support for new teachers should be provided before they want to leave the field. Research linking induction and attrition is well studied; there is a vast body of knowledge discussing the

benefits of induction and teacher retention (Schaefer et al., 2012). Teacher induction programs assist with supporting new teachers, lowering attrition rates, and eliminating feelings of loneliness (Womack-Wynne et al., 2011). Providing needed skills often happens through mentoring, professional development, and compensation.

Mentoring. Mentoring is important because it helps with teacher attrition (Callahan, 2016) and has been used to enhance induction. Smith and Ingersoll (2004) suggest general support for mentor teachers to implement collaborative activities for new teachers through induction, which will help with reducing turnover. Their international research includes widespread, comprehensive studies of induction programs and has confirmed the link between induction and attrition rates. Schaefer et al. (2012) completed a more recent extensive literature review and pointed out the common theme of the need to sustain teachers throughout their careers. "Working alongside beginning teachers and working from a narrative conceptualization of identity and school contexts offers a promising way to understand what sustains beginning teachers" (Schaefer et al., 2012, p. 118). Teachers need the support of their colleagues and an individualized induction program with productive relationships with their mentors to help lower attrition rates.

Similarly, Lozinak (2016) stated that mentoring does matter. Specialized mentor-matching matters to new teachers and makes their experiences more positive, which in turn lowers attrition. If taking the time to pair mentor and mentees with similar teaching experiences makes a difference to attrition rates, then the time spent making the match is worthwhile. One aspect of superior teacher induction is a strong mentoring relationship (Ingersoll & Strong, 2011) with the intention that this relationship will help encourage the new teacher to stay in the teaching profession. Programs that are intentional in their mentor

matching have positive results. For example, research over a five-year period demonstrated that “California’s Beginning Teachers Support and Assessment Program successfully reduced teacher attrition rates among participants by two-thirds (NCTAF 2002). This program involves a mandatory 2-year induction program in which a mentor teacher is partnered with a new teacher” (Gujarati, 2012, p. 221). Van Overschelde, Saunders, and Ash (2017) compared the importance of mentors in preservice teaching and induction. “The results reveal that 85% of Texas State University’s graduates were still teaching after 5 years and this rate was significantly higher than the state average retention rate” (p. 32). Thus, they claimed novice teachers must be paired with experienced teachers who understand pedagogy and the climate or culture of the teaching environment. All the data revealed in the literature review showed that effective mentoring matters and makes a difference in attrition.

Professional development and compensation. Professional development is an important element to retaining teachers. Teachers who are inclined to stay in the profession show a desire for “attending workshops or conferences for professional development relative to such activities that take place at the school or online” (Burke et al., 2015, p. 248). Yet, in a mixed-methods study by Caspersen and Raaen (2014) interviews and surveys revealed that novice teachers have an inability to “articulate their needs and to interact closely with their colleagues” (p. 206), which results in novice teachers participating less in professional development activities. Induction requires new teachers to participate in professional development, which could help eliminate the issues of novice teachers being unable to articulate their needs. This also supports the premise of George et al. (2018), whose qualitative study and questionnaires also led to the claim, “Given that the initial years seem critical for the development of teachers’ self-efficacies, professional development programs need to be implemented early” (p. 228). Since

teacher confidence aligns with attrition rates, the importance of professional development being implemented early in a career is justification for induction programs to help build self-efficacy in new teachers.

Beginning teachers are the lowest paid educators and compensation can become a deciding factor to leave the profession. Lindqvist et al. (2014) discussed the importance of looking at new teachers getting overtime pay, as well as extra time to invest in their classrooms for planning and prepping curriculum. Encouraging new teachers to participate in professional development, with out-of-school experiences with their students, and in other learning opportunities, may assist in increasing retention rates. Sometimes there is a monetary value in PD that teachers may or may not be aware of.

Summarizing the effect of induction on attrition rates. With a growing teacher shortage worldwide, it is important to understand factors that lead to attrition and strategies to keep teachers in the profession. Attrition rates are highest in urban schools and with special education teachers due to the extreme demands these teachers must address daily. “Research among newly qualified urban teachers has shown that it is important for novices to receive guidance from an experienced buddy” (Gaikhorst et al., 2014, p. 24). Also, “it is clear that new special education teachers experience high amounts of stress, multiple responsibilities, and require systematic support or induction” (Hagaman & Casey, 2018, p. 285). Burnout accounts for many cases of attrition, but many teachers leave the field temporarily for life and family demands. The cost of attrition is high to the workforce, as well as has a fiscal impact on education systems. Therefore, being proactive and supporting new teachers with their individual needs through mentoring, professional development, and compensation may help retain them. The rationale is to offer high-quality support to teachers in their early years, so that they do not

leave the education field (DeAngelis et al., 2013). Induction is a proven system that has provided mentoring and support programs for new teachers and increased retention rates globally.

Why Induction Is Becoming Policy Worldwide

Every country has education-policy agendas to help promote their educational systems. Darling-Hammond (2017) has analyzed effective teaching practices through an extensive literature review of best practices for new teacher preparation in top performing countries including Australia, Canada, Finland, and Singapore. In this research, she found that teaching effectiveness is at the top of policy agendas worldwide. In addition, new teacher induction programs are in the policy agendas of top performing countries. While she is an advocate for new teacher induction, she has claimed, it is better to collect ideas internationally and make regional policy decisions (Darling-Hammond, 2012). Looking at induction from an international-standard perspective can be too broad, yet it is important to look at induction through the lens of international, national, and state policies to see how the world views induction and its place with new teachers while determining and evaluating local policies.

International policy. Reform in education happens throughout the world. However, for a new reform or innovative idea to become globally recognized, research, literature reviews, and data must be validated by the global educational community before policymakers consider making reform ideas policy. Feldhaus (2013) conducted a meta-analysis study of policies and the reasons behind them from various countries and linked the common themes. The findings showed effective teacher preparation programs lead into effective induction programs and future career and professional development (Darling-Hammond, 2012; Feldhaus, 2013). Induction has become a policy that is globally used to assist new teachers in their first years of teaching.

To deal with the worldwide teaching shortage, many countries are implementing induction programs as an attempt to slow down attrition rates. In their 2013 quantitative study Helms-Lorenz et al. interviewed a sample group of 129 Dutch teachers with less than three years of teaching experience. They were divided into an experimental group, which received guidance in the development and implementation of induction, and a control group who did not receive guidance. The experiment showed that,

> First year beginning teachers (BT) who (1) are supported in reducing their workload, (2) receive support with their professional development plans, and (3) are more obliged to attend induction activities organized by the school experience their working environment as less stress provoking and have more confidence in their capability to successfully carry out their teaching tasks in the classroom and are less prone to leave the school or the profession (Helms-Lorenz et al., 2013, p. 1276).

Thus, education systems that invest in induction and provide support to new teachers, are indeed slowing the attrition rates in education. Around the world, the teacher population is aging and retiring, resulting in a teacher shortage. Teacher attrition is a worldwide problem due to the aging of the baby boomers. Teachers trained in the United States will also be in high demand in other countries (Kearney, 2014). Therefore, the United States needs to train high quality teachers not only for our national teaching force, but also for the global teaching force.

National policy. From a national historical perspective, No Child Left Behind (NCLB) was a strong influence on new teacher induction, as we know it today. The NCLB law was in effect from 2002–2015 and resulted in our nation re-evaluating the current education system and making changes based on student achievement reports. During that period, many researchers

were looking at effective models of education and sharing their findings with the academic community.

In 2004, Smith and Ingersoll reported on the national results of the Schools and Staffing Surveys from a 10-year period and showed the evolution of induction in the U.S.

> The data indicate that participation in induction programs increased during the decade from 1990 to 2000. In the 1990–1991 school year, about 4 in 10 beginning teachers said that they had "participated in a formal teacher induction program, i.e., a program to help beginning teachers by assigning them to master or mentor teachers." By 1993–1994, the number increased to just over half of beginning teachers. By the 1999–2000 school year, participation rates in induction programs rose to about 8 in 10 (p. 690).

This massive national study helped reveal induction trends and expectations in the United States. By 2000, induction was so widely practiced that most new teachers were participating in programs. As most of the country was implementing induction programs, new studies regarding states' policies on induction began to emerge.

In a literature review looking at reports of different states' evaluation measurements and teacher evaluations from various states, Darling-Hammond (2012) discovered that "Policies that create increasingly valid measures of teaching effectiveness—and that create innovative systems for recognizing, developing and utilizing expert teachers—can ultimately help to create a more effective teaching profession" (p. 39). In the same year, Ingersoll (2012) conducted a collective study of past research in which he analyzed national data for demographic changes and conducted statistical analyses. He claimed that new teacher induction programs are needed in the United States and are a necessary part of education reform and policy.

> Induction can help retain teachers and improve their instruction. The data also show that the kinds and amounts of support vary. And some research suggests that content, intensity, and duration are important: The effect depends on how much induction one gets and for how long. (Ingersoll, 2012, p. 51)

The New Teacher Center (NTC) released a policy paper in 2012, where Goldrick, Osta, Barlin, and Burn completed a comprehensive review of state policy data from 2011–2012 for the 50 states' policies regarding teacher induction. Since new teachers are highly represented in schools across the nation, it became a national interest to see how the 50 states support new teachers. In this report, NTC summarized "existing policies related to 10 key criteria most critical to the provision of universal, high-quality induction and mentoring support for beginning educators" (Goldrick et al., 2012, p. iii). They revealed that half of the states had implemented induction programs, but at this juncture in time, no states had perfected induction. Thus revealing, "there is much work to be done by state policymakers to construct high-quality policies supporting comprehensive new teacher induction" (Goldrick et al., 2012, p. 32). While the benefits of induction are accepted nationally and induction helps support national policies, the implementation of induction is a state issue.

Policy in California. With the requirements of the No Child Left Behind Act (NCLB), which was signed into law in 2002, California as well as other states, needed to set up a system to improve teacher effectiveness. Induction was identified as a possible solution and "in 1988, California began to address the crucial induction period for beginning teachers by funding a pilot program called the California New Teacher Project" (Lovo et al., 2006, p. 55) at the University of California at Santa Cruz, which became Beginning Teacher Support and Assessment (BTSA), which then spread throughout the state. These initial programs were devised to help new teachers

become more effective and remain in the field. They proved to be effective, "Over a five-year period, for example, California's Beginning Teachers Support and Assessment Program successfully reduced teacher attrition rates among participants by two-thirds" (NCTAF 2002, as cited by Gujarati, 2012, p. 221).

Since the literature points to the advantages of induction, by 2009–2010 induction in California became a requirement for licensure and induction programs were participating in the accreditation cycle (CTC, 2010). Induction is expensive, therefore research on effective programs is helpful to policymakers to ensure that they are spending educational resources wisely. Once the nation's policymakers agreed on the effectiveness of induction, individual states began to make their own policies. California was one of the states that created a formal induction policy and process for the licensure of teachers with formal preconditions and current procedures updated in 2016 (CTC, 2016). The California induction process continues to evolve. The current preconditions for induction require new teachers to have a job and complete a 2-year induction program within their first five years of holding a preliminary credential (CTC, 2016). Thus, while the goals of the program have remained consistent to assist teachers and offer support for effective teaching strategies, the requirements for participation have changed over time.

Kearney (2014) completed a mixed-methods study which reviewed international literature reviews and empirical research by creating tables to compare the key characteristics of induction, commonalities, and retention rates. These qualities were then reviewed to identify the characteristics of effective induction. He recommended that "schools need to implement induction programs that are dictated by policy and are formal, structured, and overseen by the appropriate accreditation body" (p. 13). This research aligns with the motivation behind a

systematic process of induction in the state of California. The CTC is the accreditation body that oversees California induction programs.

Lack of funding. While it is agreed globally, nationally, and on a state level that induction is valuable and increases teacher effectiveness, funding the policy is a challenge. Robson and Mtika (2017) point out this issue in their qualitative study through which they interviewed new teachers about university and district partnerships for mentoring based on the policy requirements for new teachers. They pointed out that in many states, policymakers need to solve the problem of funding mentoring and induction. California is an induction-policy state with no induction funding. Some districts can reallocate funds for this required teacher preparation, but there is no equity across the state regarding policy and funding. Most participants involved in California induction agree that the policy needs financial backing, but this is not an issue that will soon be resolved due to the many obstacles obtaining funding has to overcome.

Mitchell, Howard, Meetze-Hall, Hendrick, and Sandlin (2017) are leaders in California Induction programs. They conducted a 3-year qualitative study of a pilot online-induction program developed in California. It was based on a perceived need for research surrounding the California new State Policies for Induction around BTSA (Beginning Teacher Support Programs) and lack of future funding. They found structured communication for mentors is a new element of effective induction, justifying a need for mentor training in communication and expectations to assist with the success of new teachers. However, funding in California for these trainings, supporting new teachers, and induction in general is still an issue.

Summarizing induction policy on a global level. Top performing countries have educational policy agendas to encourage effective teaching practices, and induction is a policy

which is common among them (Robson and Mtika, 2017). Globally, induction is used to assist new teachers in their first years of teaching and help them meet unexpected challenges. Induction programs have also shown evidence of slowing down attrition rates (Ronfeldt & McQueen, 2017). This is a global issue that the United States helps address by training high-quality teachers for the global teaching force. On the national front, new teacher induction programs have been found to be a necessary part of education reform and policy (Smith & Ingersoll, 2004). Induction policies are implemented state-by-state and funding for such programs is an issue that California faces. Implementing policy, without statewide funding, is an issue that affects all new teachers in private schools and in districts without funding.

Induction and the Theory of Self-Efficacy

Support through mentoring and induction programs helps raise self-efficacy, which is one's belief in oneself to attain goals. As new teachers are gaining confidence while practicing in the field, they need trained mentors to help them develop this confidence. Providing new teachers this needed support is how induction and self-efficacy interrelate.

Importance of perceived autonomy. The literature review revealed many studies on new teachers' self-efficacy were focused on the teachers' perceived autonomy, support needs, and attitudes towards the teaching profession. In a mixed-methods study created by Kanadlı (2017), quantitative data was collected through the Learning Climate Scale, the Attitudes towards the Teaching Profession Questionnaire, and the Teacher Self-Efficacy Scale; additionally, qualitative data was collected using an open-ended questionnaire. The data revealed:

> the factors that can affect prospective teachers' professional self-efficacy have been generally identified as their perceived autonomy support, attitudes towards the teaching

> profession, undergraduate education, school experience lessons (teaching practice), self-confidence, instructors' attitudes and proficiencies, affection for the profession, PPSEs [public personnel selection examination], assignment problems, and societal status of teaching. (Kanadlı, 2017, p. 1865)

This is important to know because teachers who have a positive attitude toward the teaching profession are more likely to have strong sense of self-efficacy.

This confidence translates into higher student achievement in the classroom (Miller, Ramirez, & Murdock, 2017; Zee & Koomen, 2016). Interestingly, through surveys of new teachers and their students, Miller et al. (2017) found that "Teachers' self-efficacy has also been shown to predict the quality of the relationships teachers have with their students and the type of classroom environment they provide; both of which can influence student outcomes" (p. 261). Therefore, administrators, mentors, and colleagues must be aware of the attitudes of new teachers and help encourage them so that classrooms can be more effective.

Emotional exhaustion and job satisfaction. Skaalvik and Skaalvik (2014) collected qualitative data which supported the theoretical framework of self-efficacy. The data showed a correlation between teachers, self-efficacy, and teacher motivation. "These correlations support previous studies showing that both self-efficacy and autonomy, when analyzed separately, were positively associated with teachers' engagement and job satisfaction, and negatively with emotional exhaustion. Self-efficacy and autonomy were positively but moderately associated" (p. 73). The study revealed the importance of self-efficacy in teachers because, if teachers have a weak sense of self-efficacy, they become emotionally exhausted and are more likely to leave the profession (Zee & Koomen, 2016). Von der Embse, Sandilos, Pendergast, and Mankin (2016) also found through online surveys, that "strengthening teachers' efficacy may be an important

component to helping educators cope with the stressors brought forth by test-based accountability policies" (p. 316). There are a variety of stressors that can affect new teachers' job satisfaction, but teachers with stronger self-efficacy in their teaching ability can handle stress better when it comes to test requirements, accountability policies, and emotional exhaustion.

Induction programs help new teachers with the issues they did not know to prepare for. The purpose of induction is to help new teachers through classroom challenges while receiving support from an experienced teacher, rather than trying to problem solve alone. Through a mixed-methods study of preservice teachers and new special-education teachers in their first three years of teaching, Hagaman and Casey (2018) revealed that

> while preservice teachers are aware of the demands, they may not realize how the weight of these responsibilities will impact their long-term commitment to the field. This finding supports the need for induction programs that provide a "bridge" between training and teaching in which both teacher-preparation programs and schools work collaboratively to create realistic and meaningful experiences during the first year(s) teaching. (p. 288)

Thus, induction helps improve new teachers' self-efficacy, which in turn minimizes the weight of responsibility and feelings that lead to emotional exhaustion (Skaalvik & Skaalvik, 2014; von der Embse et al., 2016). Most new teachers are unable to anticipate these issues, yet research not only shows evidence of this reality, but also points to solutions to help new teachers. For example:

> Instructors can positively affect prospective teachers' professional self-efficacy and attitudes towards the profession by establishing positive relationships with them; caring about, trusting, and supporting them; becoming a model for them during practices, and

> avoiding being bossy or insulting. An in-service training program can be prepared for instructors who have inadequacies here. (Kanadlı, 2017, p. 1865)

Another example of a solution to help new teachers and improve their job satisfaction is direct instruction of classroom tasks. Tomas et al. (2017) interviewed preservice teachers on their attitudes toward education and sustainability. They claimed, if self-efficacy improves when teachers are exposed to direct instruction with the things they are required to teach, then inclusion of the required teaching elements is important when supporting new teachers through induction.

A recent study, by Kozikoğlu (2018), collected qualitative data from 120 novice teachers in Turkey. The survey used metaphors for new teachers to describe their teaching experience and feelings. "It was determined that novice teachers do not fully know what [to do] and how to do [it] due to the lack of experience in the first year of teaching[;] theory is different from practice, they learn through trial and error, and thus they have difficulties" (p. 27). These difficulties lead to a feeling of inadequacy, which can lead to a lack of job satisfaction. Therefore, it is important that novice teachers understand their job responsibilities to help raise their self-efficacy.

The role of self-efficacy and induction. The research on self-efficacy and induction is extensive. Ingersoll and Strong (2011) looked at empirical research of fifteen 15 early induction programs, supporting the validity of induction. They "examined existing systematic, narrative, or traditional reviews of such research, and [they] searched online databases including Dissertation Abstracts, ERIC, Psychological Abstracts, Sociological Abstracts, PsycINFO, Wilson Index, SAGE's online database, and Google Scholar" (p. 205). After reviewing the variety of research, Ingersoll and Strong concluded "that support and assistance for beginning teachers have a positive impact on three sets of outcomes: teacher commitment and retention, teacher classroom

instructional practices, and student achievement" (2011, p. 201). All these areas were previously linked in the literature review to self-efficacy. Like induction, "Self-efficacy has been shown in a number of areas, including teaching, to increase motivation and to decrease stress and burnout" (Skaalvik & Skaalvik, 2014, p. 75). Therefore, since induction has a positive impact on new teachers and self-efficacy has a positive impact on teachers, the evidence supports that induction programs should be designed to help raise new teachers' self-efficacy.

Conclusion

The review of the research literature and methodological literature demonstrated depth in the topic of induction worldwide. There are advantages and disadvantages of induction programs, yet the advantages seem to outweigh the disadvantages making induction a viable solution to supporting new teachers. Identifying the role of mentors is essential because the mentors are important conduits for new teacher success (Israel et al., 2014; Jones et al., 2013). Induction clearly assists with attrition and retention rates; therefore, induction policies are being implemented worldwide (Helms-Lorenz et al., 2015; Kearney, 2014). Finally, the role of self-efficacy in professional development (George et al., 2018) through induction programs is important because mentors help new teachers gain confidence, which creates success in their teaching ability and professional behaviors.

Review of Methodological Issues

The review of the literature revealed that a range of methodologies has been used to investigate the topic of new teacher induction. Many of the articles referenced mixed methods of quantitative and qualitative research. The quantitative research included data collection from independent sample tests and questionnaires that used Likert Scales, the Learning Climate Scale, the Self-Efficacy Scale, or the Rasch Scale. The quantitative research mostly focused on the

correlation between induction programs and teacher retention. Various studies have been conducted demonstrating a direct association between comprehensive induction plans and retention, which leads to lower attrition rates (DeAngelis et al., 2013; Helms-Lorenz et al., 2013; Kearney, 2014; Smith & Ingersoll, 2004).

In addition, more recent qualitative research has addressed the link between effective mentoring in induction programs and teachers' satisfaction with the process and their classroom success (Mitchell et al., 2017; Shanks, 2017). Thirty-one of the articles reviewed for this research used qualitative methods focusing on short-term or longitudinal questionnaires with open-ended questions. The articles showed an evolution in induction topic research. As the benefits and importance of induction were recognized worldwide in the early 2000s, research shifted to the effectiveness of program design and important elements of mentoring.

There were also some noteworthy longitudinal studies that used a mixed-method approach. One longitudinal study focused on Swedish teachers' career trajectories. Using semistructured questionnaires over a 20-year period, Lindqvist et al. (2014) were able to track teacher attrition and working rates in Sweden. This study took into consideration life factors, such as parenting and family commitments, as reasons for attrition, not just mentoring, induction, or support. Organization factors such as administrative and behavior-management support also played large roles in attrition rates. Many teachers who left the field ended up coming back later. This study was significant because there has been much focus on induction and attrition; however, while teaching forces worldwide need to expand, it is important to look at a variety of factors that make teachers leave the field. Since teacher turnover is an issue that policymakers are trying to reverse, another longitudinal study by Ronfeldt and McQueen (2017) further explored the mixed evidence as to whether induction helps reverse teacher turnover. Through

their research, they claimed “receiving induction supports in the first year predicts less teacher migration and attrition, suggesting that using induction to reduce new teacher turnover is a promising policy trend” (Ronfeldt & McQueen, 2017, p. 394). Based on research such as this, induction is becoming policy in many areas of education worldwide.

Most of the research included in this literature review applied qualitative research methodology through case studies to investigate the topic of new teacher induction. One such study was conducted by Marshall et al. (2013). Their research claimed that new special education teachers consider their mentors more effective if the mentors have similar special education teaching experiences and common planning periods. These findings have affected many induction plans requiring purposeful mentor and candidates matches. Since mentor and mentee relationships are critical to effective induction programs, many recent case studies have focused on this topic. Kearney (2016) conducted an interpretive phenomenological analysis and found beginning teachers need induction to face challenges early in their careers, however sometimes they do not receive adequate induction support through their mentor. Likewise, another case study showed candidates were discontented with their mentoring experience (LaVine, 2016). However, perceptions are mixed in various studies. This shows that more studies with focused questions and topics need to be conducted in this area.

Synthesis and Critique of Previous Research

A synthesis of the findings in the body of literature shows that supporting new teachers through induction programs helps with teacher development, teacher quality, and teacher retention. Evidence supports that novice teachers with mentoring support (specifically university support of curriculum) helps with teacher development and retention (Allen, 2013). Most of the induction research points to the argument for induction to be a possible solution to assist with

teacher attrition rates. The argument that induction assists with retention rates and teaching skills has been widely researched. Ingersoll (2003, 2004, 2012) is one of the primary initial researchers who studied induction and its link to teacher retention, "The strongest effect was shown for teachers being observed and coached: Teachers benefit from coaching and being observed. This is in line with international findings of the effects of mentoring" (Ingersoll & Strong, 2011, p. 192). Crosswell and Beutel (2013) added to this body of knowledge claiming that beginning teachers' perceptions of their teaching helped to guide how mentors would help the new teachers. Additionally, these researchers discussed the role universities can play in supporting new teachers. As the world looks to fill teaching positions and retain teachers, induction has become an important topic of international educational research and conversations.

The more recent body of induction research discusses new teachers' perceptions of induction program components (Kidd, 2015; Kozikoğlu, 2018; LaVine, 2016; Miller et al., 2017; Nasser-Abu Alhija & Fresko, 2016; Tomas et al., 2017; Williams & Gillham, 2016). These researchers have shared findings about the importance of induction programs and researching the perceptions and feeling of teachers, mainly for program improvements. Kidd (2015) successfully argues that all new teachers need access not only to induction programs, but to equitable induction programs for them to be effective. LaVine (2016) demonstrated through a qualitative case study, that studies can be based with small numbers of induction candidates to collect authentic data on the experiences and feelings of teachers. In comparison to the articles cited that addressed the positive feelings of teachers toward induction, (e.g., Williams & Gillham, 2016), Miller et al. (2017) found teachers' perceptions of induction to be that it was a waste of time. Therefore, more research needs to be done addressing teachers' perceptions and relevance of a program to delineate the connection between perceptions of induction and program effectiveness.

There is a common claim linking teachers' perceptions and attrition. Teachers' perceptions of support, stress levels, and self-efficacy are important as they contribute to attrition levels (Helms-Lorenz et al., 2013). Since attrition levels are a worldwide focus in education, and research is showing a link between teachers' perceptions and attrition rates, new studies are being conducted in this arena. A study in Australia showed teachers' perceptions of induction programs indicated minimal support in many cases (Kidd, 2015). Other findings revealed novice teachers needed to be supported with effective mentors to face the challenges of being a new teacher. In a study by LaVine (2016) the data showed that according to the teachers' perceptions, their mentoring experiences were not in line with the support the new teachers needed. Similarly, Williams and Gillham (2016) looked at teachers' perceptions of induction program elements instead of looking at the effectiveness of induction programs and, based on feedback from participants, found "the program oftentimes is counterintuitive to its purpose" (p. 228). In summary, early induction research showed the importance of induction and how it helped attrition rates, whereas more recent research focuses on teachers' perceptions of the elements offered in the programs in which they participated.

There is, however, a limited amount of research regarding the attitudes and beliefs toward the induction process by novice teachers who are required to complete an induction program for licensure. In 2012, Ingersoll claimed new teacher induction programs are needed and are part of education reform and policy. At that same time, another leading induction researcher, Darling-Hammond (2012), agreed that teacher evaluation methods in the United States needed to be examined and changed, tying evaluation to induction. Darling-Hammond (2012) claimed induction should be examined from the perspectives of evaluation instruments, procedures, and

policy by region (state or country) not through a global or even national lens. By 2012, California had an induction requirement for new teachers for licensure.

Research on new teachers' attitudes and beliefs pertaining to the requirement of completing an induction program is relevant to California legislators because in 2004 through AB 2210 induction became a state requirement for California-prepared general-education preliminary-credential holders to clear their credentials (Bergeson, 2003–2004). Through many amendments from 2009–2016, currently all California-prepared teachers, general education and special education, are required to complete a state approved induction program (CTC, 2018, February). Research has neglected the attitudes and beliefs of the teachers who are required to complete induction through this assembly bill. Therefore, it is unknown if this requirement is affecting the attitudes of new teachers as they enter the teaching profession.

In order to try to understand new teachers' beliefs about induction, there is a need to identify what has been discovered through the literature of past attitudes. Most of the research focuses on the following themes: induction and attrition, need for mentoring, and teacher preparation. While there is a positive correlation in the research linking induction to lower attrition rates, LoCascio et al. (2016) discovered that new teachers in low socioeconomic schools did not think induction would affect their staying in the field of teaching. Other new teachers who were interviewed on their attitudes towards induction, revealed an association with their perceived working conditions and the frequency in which they would interact with their mentors (Pogodzinski, 2015). When new teachers saw positive teacher-administrator relations, they were more apt to turn to their mentors for guidance and curriculum decisions.

Ohio has the Ohio Standards for the Teaching Profession which are addressed through induction programs. Williams and Gillham (2016) analyzed Ohio new teachers' attitudes regarding induction and the standards and they reported they,

> believe the OREP [induction program] created more work and stress for them and took time away from their responsibilities as a teacher. However, the teachers believe that their teacher preparation programs, classroom experiences, and mentors, colleagues, and administrators improved their ability to meet the Ohio standards. (p. 228)

Thus, the research is showing despite the benefits of induction, new teachers' attitudes and beliefs toward induction need further study.

Chapter 2 Summary

This chapter described Bandura's (1977) theory of self-efficacy and how it will serve as the conceptual framework for induction research as to how new teachers perceive induction policy requirements. The concept of Bandura's theory of self-efficacy, in relation to induction, refers to how a person believes he or she succeeded at classroom tasks or in clearly defined situations. Research has shown that new teachers with more support report lower stress levels and a stronger sense of self-efficacy in the classroom (Helms-Lorenz et al., 2013). Also, if self-efficacy improves when teachers are exposed to direct instruction with the things they are required to teach, then inclusion of the required teaching elements is important when supporting new teachers in induction (Tomas et al., 2017).

The review of the literature revealed five major themes and some gaps and deficiencies. The first major theme found in the literature review related to the advantages and disadvantages of induction. Advantages include new teacher coaching, support that assists with assimilation into teaching, reduced bias in the classroom, improved skill level of teachers and students, and

lower attrition rates of teachers. Disadvantages were comprised of fiscal impacts for educational institutions or teachers, inconsistency in mentoring models, and at times evaluation for reemployment that was not conducted by an administrator or was heavily influenced by a mentor. The second research theme focused on the importance of the role of the mentor. While the duties and responsibilities of a mentor are less clear, the preponderance of evidence points to the importance of the mentor and their supportive relationship with new teachers. The third theme evolved out of research that attempted to address the high attritions rates in teaching. As the availability of teachers fell worldwide, research of induction was conducted as a possible solution to slow down the large numbers of trained teachers who were leaving the field. The fourth theme regarded the widespread policy of induction for new teachers. The fifth and final theme discussed the link between self-efficacy development within induction programs.

The review of the literature for this chapter also included articles that presented the historical background of induction and how it came to be policy worldwide. This historical context demonstrated the relationship between induction programs and lowered attrition rates in education (Helms-Lorenz et al., 2013). This relates directly to the history of the California induction policy. The teacher shortage in California motivated policymakers to act and implement measures to help retain teachers. Over a 5-year period, California attrition rates improved because of induction programs (Gujarati, 2012). This study allows new teachers to reflect on their attitudes and beliefs on current policy, which could help inform policymakers on how induction policy affects the teacher shortage.

Chapter 2 also discussed the different research methodologies pertaining to induction. Much of the research review focused on qualitative case studies, although quantitative and mixed-method studies were also discovered. The review of the different methodologies indicated

an evolution in induction research from the validity and importance of induction to assist with attrition rates to the effective elements of induction. The role of the mentor was of interest in current qualitative research (Israel et al., 2014; Jones et al., 2013; Robson & Mtika, 2017). The range of methodologies found in the literature indicated that qualitative research through case studies is a valid method to collect information regarding teachers' attitudes and beliefs about induction requirements due to state policy. This research may provide policymakers important information regarding new teachers' attitudes and beliefs that may affect decisions when entering the teaching field.

The chapter concluded with a critique of previous research and demonstrated what has been studied in the field of induction pertaining to the advantages and disadvantages of induction programming. The literature review revealed a gap in researching new teachers' attitudes and beliefs toward induction (LaVine, 2016; LoCascio et al., 2016). Thus, creating a need to step away from programming concerns and listen to the message new teachers have, to share about induction. While research shows that induction programs are becoming worldwide policy, (Darling-Hammond, 2017; Kearney, 2014; Shanks, 2017) there is little research that documents new teachers' attitudes and beliefs on the requirement of induction. This finding provided a definite rationale or justification for conducting this specific qualitative study. Looking at teachers' attitudes, pertaining to the requirements of induction, will further enhance the existing literature of teachers' perceptions and self-concerns. Currently, most research on teachers' attitudes of induction discusses the effectiveness of the mentoring process; whereas, this study will expand on the insights of teachers' attitudes regarding how they feel about being required to complete an induction program to clear their credential by the CTC.

Chapter 3: Methodology

Introduction

In education, policies regarding new teacher training and requirements continue to evolve. In 2016, the CTC introduced new standards for beginning teachers to clear their preliminary credentials for licensure (California Commission on Teacher Credentialing [CTC], 2016). Clearing a credential in California means transitioning a credential from preliminary status to a professional clear credential. Researching the attitudes and beliefs of new teachers is significant because if new teachers feel discontented or alienated, they might leave the profession, exacerbating the teacher shortage (DeAngelis et al., 2013; Gordon, 2016). Von der Embse et al. (2016) discussed the importance of examining the complex relationship between teacher self-efficacy, teacher stress, and job satisfaction. Expanding on their work, understanding the attitudes and beliefs beginning teachers have regarding requirements could impact how new teachers work and feel in their new jobs and whether they remain in the profession.

Yet, there is a lack of literature about the attitudes and beliefs of novice teachers who have completed an induction program as required by the state of California to obtain their clear teaching credential license. This research project analyzed attitudes and beliefs of new general education teachers, regarding their experiences in a university-basedonline induction program and the California induction requirements, to see how completing the program affected their teaching and desire to stay in the profession. By exploring the personal experiences new teachers have encountered with induction, the result was a better understanding regarding the teachers' attitudes and beliefs of the process. This study explored: the attitudes and beliefs towards California induction requirements of new teachers, those who have been teaching in California for five years or less, and who completed a university-based online induction program.

Conducting a qualitative case study was the most effective method to research the attitudes and beliefs of new teachers regarding California's new teacher induction requirements. Case studies allow researchers to understand a contemporary phenomenon through inquiry, with a small group of participants, in order to advance practices (Creswell, 2013; Harding, 2019; Hatch, 2002; Stake, 1995). The study was conducted using initial interviews, archival data, and follow-up interviews as the primary data collection. Analyzing the interview transcripts, allowed the opportunity to interpret and understand the attitudes and beliefs of new teachers toward California induction requirements.

The objective of revealing the attitudes and beliefs of new teachers aligns with current research and the conceptual framework of self-efficacy (Bandura, 1977, 2006), perceived autonomy (Kanadlı, 2017), and emotional exhaustion and job satisfaction (Skaalvik & Skaalvik, 2014; von der Embse et al., 2016). This study is significant because there is a lack of data relating to teachers' attitudes or beliefs about the policy requirement to complete induction for licensure. Aligning new research with existing theory, will create an opportunity to validate and guide future action steps. The data was analyzed using inductive analysis. Data analysis began as data was collected, and then it was organized by coding the data to look for patterns (Hatch, 2002). Chapter 3 is an overview of the research question, an explanation of methodology for qualitative research including the possible roadblocks to this study, as well as expected findings.

Research Question

How do the attitudes and beliefs of new teachers, regarding California induction policy requirements, affect teaching and retention after participating in a university-based online induction program?

To answer the research question, a qualitative case study that employs interviews to gather information was most effective. According to Creswell (2013), interview questions should be "open-ended, general, and focused on understanding your central phenomenon in the study" (p. 163). Therefore, for this study the questions provide the opportunity to hear the voices of new teachers regarding their attitudes and beliefs toward induction policy. In addition, by looking at the archival data found specifically in the participants' Individualized Learning Plans (ILP), the outcome expectations the teachers chose to focus on were revealed. ILPs are documents created by induction candidates with their mentors, to demonstrate the self-selected professional goals they plan to accomplish during the term of induction. This is part of the required self-regulation process in California induction programs. "Efficacy beliefs play a central role in the self-regulation of motivation through goal challenges and outcome expectations" (Bandura, 2001, p. 10). This is relevant to this study because the self-efficacy of teachers could affect their attitudes and beliefs toward training and support. For example, if teachers are confident in their teaching skills, they may think that the induction requirement is unnecessary. In addition, the interviews revealed the attitudes and beliefs new teachers demonstrate toward induction policy. By using the interviews, data checking, and member checking, this study effectively collected, analyzed, and explained data that can add to the body of knowledge around new teachers' attitudes toward and beliefs towards induction policy.

The interviews also revealed the social cognitive processes that occurred through the mentoring process within induction. Induction is a collaborative and social process between a new teacher and a mentor. Social cognitive theory refers to three factors that help develop change and success: personal effort, relying on others for scaffolding as one learns, and collaborative social interaction (Bandura, 2001). Through the interviews, these factors in the

induction process were revealed and tied to the attitudes and beliefs of the new teachers. The goal was to see if there was a consistent theme between what the participants say and what their archival data shows they completed in the induction program.

Purpose Statement and Design

The purpose of this instrumental qualitative case study (Stake, 1995) was to gain an understanding of the attitudes and beliefs of new general education teachers about California induction requirements, focusing on the experiences of a group of participants in a university-based online induction program for clearing a credential in California after receiving their preliminary credentials in California. The inquiry is called an instrumental case study because the purpose is to gain a general and greater understanding based on the data (Stake, 1995).

The study design utilized an instrumental case-study approach (Stake, 1995). The case study was narrowed to a specific group of teachers' attitudes and beliefs toward California's required new teacher induction programs and how this affects teaching and retention. By looking at specific issues such as how attitudes and beliefs towards induction affect teaching and retention, "issues help us expand upon the moment, help us to see the instance in a more historical light, help us recognize the pervasive problems in human interactions" (Stake, 1995, p. 17). A qualitative method was used to explore novice teachers' attitudes and beliefs towards required induction, and the effect on teaching and retention, after the successful completion of a California university-based induction program. The qualitative approach allowed me, to use interviews and, based on the data collected, ask additional questions during follow-up, one-on-one interviews to understand the experiences a group of new teachers experienced with induction. In addition, archival data allowed for triangulation. Specifically, the Individualized Learning Plans and final screencast projects from the participant's induction program were

reviewed. Looking at these plans helped the development of follow-up question. Also, by comparing the answers from the initial interview questions with the archival data, to see the areas of alignment, assisted with the validation of the story of the attitudes and beliefs of the participant as evidenced through classroom implementation of ILP goals.

Research Population and Sample Method

The research population was a convenience sample of general education teachers who were required to complete an approved induction program in California. The sample consisted of 11 general education teachers who received preliminary credentials in California and participated in a university-based online induction program in the 2018–2019 school year. During the induction program, they were full-time or part-time educators with teaching contracts in K–12 assignments (see Appendix A).

The selection of participants was conducted through purposeful sampling because according to Creswell (2013) select individuals "can purposefully inform an understanding of the research problem and central phenomenon in the study" (p. 156). Similarly, Yazan (2015) discussed Merriam's (1998) perspective of purposeful sampling as allowing a researcher to analyze a program or policy. In the case of this research, purposeful sampling aligned with the study of new teachers' attitudes of a program based on policy. The sample size included new general education teachers who received preliminary credentials in California and subsequently participated in a university-based online induction program. Potential participants were contacted via email with a request for participation. The email clarified the volunteers needed for the study were educators with five years or less of teaching experience in California, who cleared their California credential by completing an online induction program offered by a university in

California, and are were employed as full-time or part-time educators with teaching contracts in K–12 assignments.

Instrumentation

The instrumentation that was used for this study was initial interviews, archival data, and follow-up interviews. The archival data, in the form of course documents, such as syllabi and course descriptions, as well as ILPs, were useful in providing further insight into the university-based online induction program that the participants completed.

Initial interview. The primary source of data was the initial interview, which consisted of nine semi-structured questions. These questions gave participants the opportunity to reflect on the meaningfulness of the induction-program requirements. The questions were open-ended and general, as recommended by Creswell (2013), to allow participants the opportunity to share their attitudes and beliefs toward California induction requirements. Hatch (2002) states that open-ended questions can "encourage informants to explain their unique perspectives on the issues at hand" (p. 23). These questions are listed in Appendix B. The interviews occurred via online video conference meetings. The induction program reaches California teachers wherever they are teaching and "online interviews enable researchers to reach participants worldwide" (Harding, 2019, p. 68).

Archival data. Unobtrusive artifact data was the secondary data and consisted of ILPs. According to Hatch (2002) "the main advantage of this type of data collection is that it does not influence the social setting being examined" (p. 25). This data was useful in providing further insight into the university-based online induction-program requirements and how these requirements reflect the CTC preconditions. To participate in this study, participants must have completed one year in the induction program. Access to the ILPs and final screencast projects

occurred by asking the participants, who consented to be a part of the case study, to provide the documents. The archival data provided additional information as to required guidelines for the induction program, resulting in a clearer picture of the participants' involvement in the induction process. The archival data then assisted in generating additional follow-up questions based on the participants' attitudes of the ILPs and show evidence of the teaching participants implemented based on induction reflections.

Follow-up interview. The third source of data was the follow-up interview, which consisted of additional inquiry, based on the initial interview questions. The follow-up interviews allowed an opportunity to ask questions that may have been skipped in the initial interview, ask a couple of new standards questions to each participant, and explore ideas that may have emerged through the data analysis phase. Flick, Metzler, and Scott (2014) have pointed out how "qualitative interviews through identification of one's prior assumptions about topics, attention to ongoing reflection, and engagement in an iterative process of sense-making" (p. 302) gives us further insight into the experiences of people. Therefore, follow-up interviews allowed an opportunity for clarification of attitudes and beliefs through ongoing reflection. Follow-up questions were asked in areas that were already explored because according to Harding (2019) a researcher may find it more useful to discuss these issues further.

Data Collection

The data was collected through online one-on-one initial and follow-up interviews with induction candidates who recently completed an induction program. In addition, archival data was reviewed in the form of ILPs and final screencast projects. According to Hatch (2002) interviews "can be the primary or only data source in some qualitative projects" (p. 91). Interviews that are open-ended will allow participants to share their perspectives of an event.

Whereas, artifact analysis or archival data allowed me, as the researcher, to see the requirements of the program, but the significance of the documents needed to be clarified through interviews. Hatch (2002) warns that "interpreting meaning and significance of unobtrusive data is, therefore, heavily inferential, and it is incumbent on researchers to go about making interpretations carefully" (p. 120). Thus, discussing the artifacts was important in the initial and follow-up interviews. The purpose of using these three data collection techniques was to see if the interview data and archival data align with the story the participant shared now that they have completed an induction program. This showed how a participant's attitude and beliefs changed over time. The research process protocol was followed, and data was not collected or analyzed until the Concordia University (CU) Institutional Review Board (IRB) approved the research proposal.

Initial Interview

The initial interview took place via an online meeting using a video-chat platform. Since all participants completed a year of the university-based online induction program, they were familiar with this online video conferencing platform because they used it in the online induction program during weekly mentor meetings. Video conferencing allowed recording of the interviews and provided a written transcript thereof. Participants were initially contacted via email to schedule video conference interviews. Interviews occurred in a one-on-one format so that participants did not know the responses of other participants.

The interviews were conducted after the participants had completed an induction program. Each participant was assigned a number to maintain confidentiality. Additionally, to protect participants' identity, the district in which they teach was not identified in data. Instead, location of teaching was identified as San Diego County, Southern California, outside of San

Diego County, a state other than California, or international. During each interview, there was an attempt to limit the interview to no more than an hour. If initial questions were not addressed in this time frame, these questions were moved into the follow-up interview. The data that was collected from the initial interview and the analyses of the ILP and final screencast project helped guide questions in the follow-up interview.

When the researcher and the participant initially met through the video-chat platform, the informed consent process occurred. First, candidates completed a consent form before the interview (see Appendix D). Before interviews and data collection began, the consent form was reviewed with the participant, allowing time for questions before the participant chose whether to agree to sign and be a part of the research process. Upon approval by the participant, the first three questions in Appendix B were asked to understand the background of the participant. These questions were meant to document the different teaching experiences and locations of the participants in the study. Then, the interviewer asked the remainder of the questions in Appendix B, to record the attitudes and beliefs of the participants regarding induction. Notes were taken as the participants answered the questions, to identify follow-up questions, so that the participants' thought process was not interrupted. These notes led to probing questions based on the participant's responses. In addition, the notes identified behaviors that were not be noted in a follow-up transcription or be obvious in the automatically recorded video conference, such as voice tone, identifiable behaviors, or unexpected interruptions. Finally, after the initial interviews were completed and the transcripts were collected, the transcripts were analyzed by the researcher and participants to be reviewed for accuracy, and the data was coded into themes.

Archival Data

Analyzing ILPs helped with classifying the data collection. “Documents are powerful indicators of the value systems operating within institutions” (Hatch, 2002, p. 117). The ILPs included reflections, which spoke to the participants experiences in the induction program. Through the reflections, there was evidence pertaining to induction goals and implementation of these goals in the classroom. After reviewing the ILPs, the researcher was able to generate more specific follow-up interview questions, that encouraged reflection of attitudes and beliefs towards induction experiences and teacher retention. Therefore, the ILP data was useful in providing further insight into the university-based online induction program requirements and how these requirements affect attitudes, beliefs, changes in teaching, and retention after participating in a university-based online induction program.

Similarly, the participants’ final screencast projects from induction were reviewed. This archival data was relevant because it helped to have a visual representation of important teaching elements and strategies that were learned through action research as an induction requirement. The screencasts included classroom data and reflection. The archival data showed alignment between information shared in interviews, induction work, and continuing practices in the classrooms.

After receiving permission from the research university, the ILPs and screencast links were collected directly from the participants to ensure accuracy and completeness of the documents (Hatch, 2002). The ILPs and screencast links were filed using a numbering system to ensure confidentiality. Hatch (2002) warns that some participants may “feel vulnerable and self-protective” (p. 123) over their work. Thus, all candidates signed consent forms and understood that they could remove themselves or their work samples from the study at any time.

Follow-Up Interview

The follow-up interview began with a standard question for all participants. Then, based on the analysis of the initial interview, questions to further investigate thematic ideas were developed for the follow-up interview (Hatch, 2002). The follow-up interview occurred within two weeks of the initial interview, so that the information collected is within a close timeline. Each follow-up interview also occurred via video conference meetings, an online video conferencing platform. Follow-up interviews gave an opportunity to ask clarifying questions, as well as an opportunity for the participant to provide additional details that might have been left out in the first interview. Notes were taken as the participants answered the follow-up questions. Like the initial interview, the notes identified behaviors that may not be noted in a follow-up transcription or be obvious in the automatically recorded video, such as voice tone, identifiable behaviors, or unexpected interruptions. Finally, after the follow-up interviews were completed and the transcripts were collected, the video conference transcripts were analyzed by the researcher and participants for accuracy, and the data was coded into themes.

Identification of Attributes

New teachers in the state of California, are required to participate in an induction program to clear their credential and maintain proper licensure for employment. The accounts of recent induction candidates can bring awareness to the attitudes and beliefs new teachers have toward induction. These accounts can also help recent induction candidates reflect on their experiences and their perceived meaning of the program. Creswell (2013) stated that this is an important part of qualitative research, “In the entire qualitative research process, the researchers keep a focus on learning the meaning that the participants hold about the problem or issue” (p.

47). Therefore, there is justification to study the attitudes and beliefs of a subset of teachers, as well as their reflections during the process, to enhance and promote the field of education.

The main attributes of participants in this study were general education induction candidates, university-based online induction participants, and participants eligible for an early completion option.

General education induction candidates: General education induction candidates are teachers teaching K–12 education, with a focus in multiple subjects (traditionally elementary school) or single subjects (traditionally middle and high schools). These teachers are teaching in classrooms without a focus on special education.

University-based online induction participants: University-based online induction programs are created as an option for teachers to clear their credentials, for those teachers who do not have access to an induction program through a school district. The participants in this study opted for online induction.

Early completion option: While induction in California is defined as "a 2-year job-embedded individualized induction program that is focused on extensive support and mentoring to new teachers in their first and second year of teaching" (CTC, 2018-b, para. 1), all induction programs must develop criteria allowing for an early completion option for teachers with previous induction or teaching experience.

Data Analysis Procedures

Data analysis is the process of collecting data, organizing it, and making sense of it. To make sense of the data that is collected from this case study, inductive analysis was used. To explain this process, Hatch (2002) says to begin "with particular pieces of evidence, then pull them together into a meaningful whole" (p. 161). When using the inductive approach, "the

researcher does not start with what is already known about a subject but instead with data collection and analysis" (Harding, 2019, p. 27). Therefore, the first step in data analysis is collecting the data.

Glaser (1965) recommended using constant comparative analysis for social research. Glaser also discussed how researching social problems can be difficult because there may be secrecy around the matter, or people are sensitive to sharing their opinions of the social issue. When participating in a case study regarding the social issue of induction requirements, the participants may be slow to reveal the experiences they encountered, or their true feelings based on perceived social norms. Therefore, creating discussion in a safe environment was crucial to collecting meaningful conversation that can be analyzed and compared through the transcripts.

The researcher gathered a sample population using invitational flyers sent via email. The respondents were California teachers who completed the online induction program. Once the participants are identified, the researcher obtained consent forms. Participants were informed through oral communication and the consent forms, that their names and any other identifying information were coded to protect their identity and secured on a password protected computer.

The interviews in the case study were recorded via video conference and transcribed for data analysis. A video platform allowed for real time conversation between me, as the researcher, and each participant. The benefit of the video is that it can document nonverbal communication, such as body language, facial expressions, and pauses. "Video recording can provide a powerful means for capturing data that can improve the quality of many studies" (Hatch, 2002, p. 126). Since the interviews are dependent on this technology, Hatch (2002) recommends the "recording equipment should be reliable and of sufficient quality that you are assured it will make a clear record of your interviews" (p. 100). The participants are used to the video conference platform,

as it was previously used in the induction program they completed. The participants and researcher both have previously used the technology and hardware that was used for recording the interviews. All interviews were recorded with the date, time, and length of interview (Hatch, 2002). The Concordia University IRB requires all data be securely locked inside a password protected computer and destroyed not less than 3 years of the completion of the research. Therefore, all the recordings and transcriptions were deleted immediately following transcription analysis and the transcribed interviews and other data was deleted after the study is complete. Initial interviews and follow-up interviews were the primary data collection method to learn more about the attitudes and beliefs of new teachers, toward induction policy requirements.

During the initial interviews, participants were asked to share their ILPs from the induction program. The ILP is the heart of the induction program; therefore, analyzing this tool and the self-reflection teachers participated in was an important part of understanding the teachers' attitudes and beliefs toward the process. When analyzing the data from interviews and ILPs and final screencast projects, the researcher looked for indicators to see how reflective the self-evaluation process was and if the work aligned with what they say about the process. In addition, interview results were analyzed to see if there was aligned evidence of growth, meaning does the interview data match up with the other evidence to tell a similar story. If the ILP tool was effective, the participants' attitudes and beliefs about the process showed in the way they utilized the tool.

Once the interviews were completed and the ILPs are collected, a table was created for coding the data from the transcriptions. The purpose of this element of data analysis is to look for relationships and identify patterns (Hatch, 2002). Corbin and Strauss (2008) point out that this process involves

> interacting with data (analysis) using techniques such as asking questions about the data, making comparisons between data, and so on, and in doing so, deriving concepts to stand for those data, then developing those concepts in terms of their properties and dimensions. (p. 66)

By concurrently collecting and analyzing data throughout the case study, constant comparative analysis of data was implemented through each step of the research process (Birks & Mills, 2013). This method, that was originated by Glaser (1965), allows for a method of data organization to help focus the research. "The purpose of the constant comparative method of joint coding and analysis is to generate theory more systematically" (Glaser, 1965, p. 437). Ultimately, "this constant comparison of the incidents very soon starts to generate theoretical properties of the category" (Glaser, 1965, p. 439). There is a specific process to working with the data to move from the analysis stage to generating a theoretical property associated with the data. The procedures to look at the interview data followed this inquiry process.

The first step of comparing the data from the initial interview, archival data, and follow-up interview was to group the data into categories is known as open coding. Open coding involves "identifying important words, or groups of words, in the data and then labelling them accordingly" (Birks & Mills, 2013, p. 9). Data was highlighted, by color-coding, any phrases that identify categories or sub-categories that indicate anything that could be relevant to the study. This step is part of the initial coding, which Corbin and Strauss (2008) identify as a reflective activity. For this process, any biases and past experiences the researcher has with this topic, must be set aside while looking carefully for anything with relevance (Corbin & Strauss, 2008).

Next, the properties by coding the data was integrated by slowly rereading through the transcripts, phrase by phrase, and identifying key elements, such as lessons learned, emotions,

and obstacles that the participants revealed. Glaser (1978) explained this process as looking at the data in segments or line by line while questioning it. After highlighting using multiple colors, the data was designated into patterns through memoing. Birks and Mills (2011) define memos as "records of thoughts, feelings, insights and ideas in relation to a research project" (p. 40). The purpose is to uncover thematic patterns while looking for concepts that appear across the interviews. Memos assist in ensuring the audit trail of data is valid by recording events in a detailed manner and clearly communicating new ideas with others who are interested in the topic of study (Birks & Mills, 2011).

Then, the memos were used to pull themes from the data and begin to selectively code around these identified themes. Corbin and Strauss (2008) identify this step as *integrating* and describe it as "choosing a core category, then retelling the story around that core category using the other categories and concepts derived during the research" (p. 107). Again, the strategy of memoing was used in sentences and paragraphs to show how concepts are related.

Finally, analysis was done to demonstrate how the concepts compare to each other. While ideas and concepts throughout the phases of data analysis were compared, in this final step of constant comparative analysis, a matrix of categories was created based on the color-coded patterns and memos that were previously recorded. This matrix gave a visual representation to all the themes and patterns that are identified through the research process to assist with the reasoning and explanation of the data. "Abductive reasoning occurs at all stages of analysis, but particularly so during the constant comparative analysis of categories to categories leading to theoretical integration" (Birks & Mills, 2013, p. 11). Specifically, patterns and categories of data that explain the experiences, attitudes, and beliefs of induction candidates was recorded.

As categories and patterns emerged, the patterns were summarized in one sentence generalizations (Hatch, 2002). This early reading stage was the start of unpacking the data. As patterns emerged, quotations or evidence from the interviews that directly supported the generalizations were selected and noted (Hatch, 2002). However, Hatch warns that having too many good examples can be a sign that your findings are already well supported and do not warrant further research. Therefore, comparative analysis of interviews, in relation to categories, will help reveal gaps as well as findings that are supported by the data.

Limitations and Delimitations of the Research Design

According to Price and Murnan, (2004) a limitation of a study design or instrument used for research may occur when bias is not controlled or cannot be controlled, and the results can be inappropriately affected. The limitations of this research design addressed the possible bias and chosen method of conducting a qualitative case study. “In contrast, a delimitation is a systematic bias intentionally introduced into the study design or instrument by the researcher” (Price & Murnan, 2004, p. 66). The delimitations listed for the research design included the limits the researcher chose to put on this study.

Limitations

A potential limitation that Creswell (2013) points out for qualitative case study is that the researcher must “identify the case” (p. 101) due to small study sizes, case studies are often not generalizable. This risk was reduced by reporting the data analysis of one case study and not studying multiple groups which “dilutes the overall analysis” (Creswell, p. 101). The study did not generalize about other programs or other induction candidates’ attitudes and beliefs.

Another limitation in this study is the number of participants to whom the researcher has access to. Only participants who had completed a particular induction program were chosen to

interview, which limited the number of candidates agreeing to participate. This limited the size of the study based on willingness of potential new teachers to be a part of a study.

A third limitation to the study was the study being limited to a certain amount of time. Since this is a study for a dissertation, there is a rough timeline, to adhere to. This research was not designed as a longitudinal study to collect a variety of perspectives. Rather, it is a snapshot of a certain time, when participants had just completed certain induction requirements. The participants chosen for this research have a shared phenomenon or lived experience that they share as a commonality bound by a specific time and place (Creswell, 2013). Many of these teachers did not have to participate in an induction program for as long a period as the state generally requires, so their feelings may differ from candidates who complete the longer program. However, at the time of the study, these were the only candidates who had completed the new induction program. The findings of this study only represent the attitudes and beliefs of a small group of new teachers who responded to a requirement in the teaching profession at a certain point in time.

Delimitations

The delimitations of this study were based on the convenience of access to the participants, as well as similar criteria of the participants (Creswell, 2013). California preliminary teachers from one induction program was used for this study because the researcher has a connection with and access to induction candidates through a California university. This provides proximity to recent graduates but will not produce deductive disclosure risks. The sample size was recruited from the recent group of induction graduates, with the understanding that 10–15 participants is ideal for this dissertation study. The research participants have similar criteria including they are all California preliminary credential teachers, all need to complete

induction to earn a California clear credential, and all are recent graduates of a university-based online induction program.

Another delimitation of the research design is that participants was purposely chosen as "individuals who fit particular predetermined criteria" (Hatch, 2002, p. 99), which could potentially lead to researcher bias. Participants who have all completed an online induction program through a California University, on an early completion option was the basis for participation of this study. This means they completed the online program in one to two semesters, instead of the usual four semesters. In the study design, a narrowed down field of induction candidates were intentionally chosen, to collect data from. Hatch (2002) and Creswell (2013) identify this strategy of narrowing the research field to a specific case, as a specific data collection strategy. This case study could be expanded to include interviews with more induction graduates from other California programs. Candidates from different induction programs was avoided because the program experiences are diverse and could result in ambiguous data results.

A third delimitation for this study pertains to the research method. To capture attitudes and beliefs, open-ended questions were posed to allow participants the opportunity to share whatever they want regarding their experiences. For some people, interviews may seem more difficult or time consuming than taking a Likert scale survey with multiple choice answers. However, for the scope of research for this study, open-ended questions made more sense. Participants could talk on a subject with no imposed limits on time (Glaser & Strauss, 1967). By using this research design, answers can be broad and coded into thematic patterns. Then, follow-up questions that align with the themes that emerge can be further pursued (Glaser & Strauss, 1967). This method of research assisted with minimizing any assumptions or biases the researcher may have and let the data tell the story.

Validation

There are eight common strategies that are frequently used for qualitative research: prolonged engagement and persistent observation, triangulation, negative case analysis, peer review or debriefing, clarifying researcher bias, member checking, rich and thick description, and external audit (Creswell, 2013). For this case study three of these strategies were used: triangulation, clarifying researcher bias, and member checking.

Credibility

For the research to be relevant and trustworthy, it must have meaning to those outside the study (Korstjens & Moser, 2018). This means the research should be able to transfer to other induction candidates' beliefs and attitudes. However, due to my experiences with induction, my biases were revealed to maintain the credibility of the study. By clarifying and commenting on "past experiences, biases, prejudices, and orientations that have likely shaped the interpretation and approach of the study" (Creswell, 2013, p. 251) future researchers, or those who are interested in new teachers' attitudes and beliefs toward induction, will understand my position when connecting meaning to their situations.

In addition, triangulation was used by analyzing data from interviews, follow-up interviews, and archival data. According to Creswell (2013) "when qualitative researchers locate evidence to document a code or theme in different sources of data, they are triangulating information and providing validity to their findings" (p. 251). Interviews have been chosen as the primary data sources because the attitudes and beliefs of new teachers need to be directly voiced. By developing this clear plan, with a clear reason for choosing interviews, the credibility and trustworthiness of the research plan can be explained (Harding, 2019).

Dependability

To ensure dependability through data and member checking, candidates needed to review the information in the study. To check the data, the written transcripts from the initial interviews was shared with the participants so they could inspect the content. The follow-up interview allowed the participants another opportunity to clarify and/or correct the interpretation of their originally recorded views.

The member checking occurred after data analysis. According to Creswell (2013), member checking occurs in quantitative studies by "taking data, analyses, interpretations, and conclusions back to the participants so that they can judge the accuracy and credibility of the account" (p. 252). Summary results were emailed to the participants and they were asked for feedback based on the analysis of the study. Through the process of having participants look at the findings, they helped validate the accuracy of the findings and changes were made as suggested. Also, by creating a clear plan outlining the research steps, as well as keeping clear and confidential records, the research was trustworthy for publishing (Korstjens & Moser, 2018).

Expected Findings

This study was designed to gain a variety of perspectives from the participants regarding their induction attitudes and experiences. The literature showed that teachers' attitudes toward the teaching profession influence their self-efficacy (Kanadlı, 2017). In turn, higher self-efficacy, or confidence in teaching, results in higher student achievement and job satisfaction (Miller et al., 2017; Zee & Koomen, 2016). Therefore, was expected that the attitudes and beliefs of new teachers who have recently completed the California induction requirements would be positive. After completing the induction process, it was expected they would feel more confident with their teaching ability. The results of this study add to the body of literature by filling a gap in

reporting teachers' attitudes or beliefs about the policy requirement to complete induction for licensure. The researcher expected the participants to report that they initially had a negative attitude about being required to complete a new teacher induction program. It was also expected that the participants would report changes in their beliefs toward the program after they had completed the requirements and seen the added benefits of the mentoring process, as well an increased perceived autonomy and job satisfaction.

Ethical Issues

Conflict of Interest Assessment

There was a potential conflict of interest that must be addressed for the research design. Creswell (2013) points out an ethical issue when "the researcher shares personal experiences with the participants in an interview setting, such as in a case study" (p. 175). I had a professional association the research university where she recruited participants. The former students may know me through the induction program they participated in. However, all the participants already completed the program and are no longer candidates. Therefore, their responses did not affect their participation in a program and there is not an active relationship that could invalidate the research.

Researcher's Position

My primary role in this study is that of a researcher, but my role with the induction program that the candidates just completed could affect the study. To protect against bias that could enter the study because of the past role the researcher plays, the participants were carefully reassured that there is no longer a hierarchy, also known as positionality, and making the degree of division between the researcher and participant low (Harding, 2019). It was communicated that both parties are now colleagues in the field, and assurance was provided that nothing in the

research process is evaluative, rather all answers collected were used for research purposes only and that participants were assigned confidential numbers for confidentiality. The students were reminded that they may withdraw from the study at any time, that they would get to review the findings before publication, and that all data would be destroyed after the project is complete. Questions were open-ended allowing the participants to share their answers in a conversational way and build rapport. To ensure that participants were not sharing what they thought the researcher wanted to hear, answers that reveal any discrepancies were revisited in the follow-up interview. By interpreting these interview answers, meaning was identified and made the findings understandable to others (Stake, 1995). By being intentional during the interviews with the participants, the researcher worked to minimize bias and positionality.

Ethical Issues in the Study

Ethics play an important role in all research studies. Harding (2019) "a researcher has a moral responsibility, both to respondents and to those who may want to conduct social research in the future, to ensure that their study is conducted ethically" (p. 53). Participants freely gave of their time; therefore, participants and their information were treated respectfully, and the purpose of the study was fully disclosed (Creswell, 2013). Ethical research methods were used by collecting informed consent, clearly outlining the interview procedures, and allowing the participants to review the findings before publishing the results (Hatch, 2002). It is the researcher's responsibility to inform the participants that their voluntary participation in research results in the published findings of their attitudes and beliefs towards induction. In addition, they were informed of any potential risks or benefits of participating in the study (Hatch, 2002). It is also my responsibility to protect participants and information by assigning participants confidential numbers to help track and code the data confidentially. The data was locked on a

password protected computer and was destroyed once the project was complete. Bias issues were prevented by presenting multiple perspectives and showing all the results that reveal participants attitudes and beliefs of induction. Compliance with IRB policies for working with human research subjects for Concordia University and the research university was achieved.

Summary

The purpose of Chapter 3 was to present the research design of the phenomenological case study. The motivation for this case study was to understand the experiences of new general education teachers who received preliminary credentials in California and participated in a university-based online induction program. Through interviews of 11 general education teachers, their attitudes and beliefs towards California induction requirements were revealed. Through inductive analysis and constant comparative analysis (Glaser & Strauss, 1967) of the interview and archival data, the ability to uncover patterns, themes, and categories to share with the field of education occurred. The protocols of the research design were intentional and followed the requirements for ethical research (Creswell, 2013; Stake, 1995). Chapter 4 restates the purpose and research question and describes the data analyses and findings from the case study.

Chapter 4: Data Analysis and Results

Introduction

The purpose of this study was to determine how the attitudes and beliefs of new teachers, regarding California induction policy requirements, affect teaching and retention after participating in a university-based online induction program. The data for this study was collected through initial interviews, archival data, and follow-up interviews. The study was conducted from October 21, 2019, through January 4, 2020, after receiving IRB and Dissertation Committee approval. Participants consisted of 11 general education teachers who recently completed an online university-based induction program and volunteered for the study. Reminder emails were sent to participants to encourage 100% participation, but only 11 of the 15 participants who originally responded to the email request followed through and completed the interviews. There were four additional candidates in the sample who showed interest but did not complete the interview; later they stated they were overwhelmed with school responsibilities, family commitments, or the holiday season; and subsequently withdrew from the study. The data collected from the teachers actively involved in the study provided results for answering the interview questions, specifically the initial interview questions, listed in Appendix B, and follow-up interview questions and additional unscripted-probing questions, listed in Appendix C. During the two types of interviews, unscripted-probing questions were also asked in order to clarify participant responses.

I decreased personal responses by muting myself in the videos when the participants were answering questions posed through the interviews in order to minimize bias. Interviews also consisted of conversational questions that led from the previous answer; however, I tried to keep the questions focused on the research and unscripted-probing questions in order to gain a clearer

picture of the participants' attitudes and beliefs. After the interviews were transcribed, each interviewee was emailed a copy of his or her transcript to read and confirm its accuracy. Only one candidate asked that an answer be changed, and two candidates asked for reassurance of confidentiality. All other candidates approved the transcripts as presented. Although I support new teacher induction implementation and have opinions towards of induction requirements, I did not allow my beliefs to influence the study or data analysis. My role was to engage participants in dialogue and record their attitudes and beliefs. Participants would often state that these were only their opinions and that they did not know how other teachers felt. I also reinforced that my role was to listen and document their opinions and that I would only share the findings at the completion of the study. I also utilized the process of member checking, allowing the participants to check the accuracy and authenticity of the data analysis.

Description of the Sample

The participants for this study consisted of nine female and two male general education teachers who had recently completed a university-based online induction program. Purposeful selection was used because the teachers who participated in induction could inform the understanding of new teachers' attitudes of a program based on policy (Creswell, 2013; Yazan, 2015). The sample size of the study was 11 general education teachers who participated in initial and follow-up interviews and provided access to archival data. These teachers consisted of new general education teachers who received preliminary credentials in California and subsequently participated in a university-based online induction program to clear their credentials. Eight of the teachers taught multiple subjects and three taught single subjects

Research Methodology and Analysis

Research Design

Permission was granted to use a qualitative case study to collect online one-on-one initial interviews (see Appendix B), follow-up interviews (see Appendix C), and archival data, which consisted of ILPs and final screencast projects. The interviews started in October 2019 and were completed by January 2020. Ten of the original volunteers participated in the study. One graduate from December 2019 was later added to bring the total number of participants to 11, which was within the range of numbers approved by the committee.

Scheduling Process

Potential participants were emailed a request, consent form, and list of possible interview times. If the listed dates were not conducive to the participant's schedule, new times were presented. Many candidates chose to conduct interviews over the Thanksgiving holiday or winter break, when they were not working, but the interviews ranged over a three-month period. There were four candidates that originally showed interest in participating in the study but were unable to commit due to family and work obligations. As a result, another candidate was recruited from the most recent December 2019 induction graduates. One out of the four December 2019 graduates responded to the request and participated in the study. This brought the total number of participants to 11.

Reminders and video conference links were sent to participants who agreed to participate in the study. When participants forgot to participate in scheduled interviews, these appointments were rescheduled, and new video conference links were created. Flexibility and communication were two important elements required to help the participants follow through with interview

commitments. In addition, participants were asked to confirm their participation in the study both verbally and through the written consent forms.

Interview Process

Participants were encouraged to share their perspectives on teacher induction and told that there are no right or wrong answers. Each of the candidates were asked the same interview questions as listed in Appendix B and Appendix C. However, based on the flow of the interview, during either interview, I might ask unscripted-probing questions based on the participant's responses. In addition, based on coding data, follow-up interview questions might change from participant to participant to ensure that similar data items were being collected. All interviews were recorded. Additional participants were asked to email links for their induction ILP goals and final screencast projects for archival data review. This archival data was provided by all but one candidate.

Transcription Process

All interviews were recorded using transcription software. This data was securely locked inside a password protected computer. These transcripts were then reviewed by me for accuracy. After the initial review, the transcription was put into table format using a number filing system to identify the questions asked by me and answers provided by the participant. These transcripts were then shared with the participant for member checking for accuracy of content.

Data Analysis Process

Once the transcripts were accurately recorded, the data analysis process began. Constant comparative analysis was occurring during the entire process of collecting and coding data from the initial interview, archival data, and follow-up interview. Participants were informed, through oral communication and the consent forms, that their names and any other identifying

information were coded to protect their identity and secured on a password protected computer. First, the data was grouped into open coding categories (Birks & Mills, 2013). The data was highlighted by color-coding any phrases that identify categories or themes that were relevant to the study. This initial coding, which Corbin and Strauss (2008) identify as a reflective activity, helped to indicate anything that was relevant to the study. Next, each of the transcripts was slowly reread, phrase by phrase, to identify key elements, such as lessons learned, emotions, and obstacles that the participants revealed (Glaser, 1978). During this process, key phrases were highlighted using multiple colors, which allowed the data to be designated into patterns through memoing. The memos were written in sentences and paragraphs to show how concepts are related and to help me capture relevant data for analysis. Finally, a comparative analysis was completed to demonstrate how the concepts related to each other. For this, a matrix was created based on the color-coded patterns and memos that were previously recorded. This matrix identified themes, direct references, and quotations from the interviews. The purpose of this matrix was to look for relationships and identify patterns (Hatch, 2002). The matrix provided a visual representation of all the themes and patterns that were identified through the research process to assist with the reasoning and explanation of the data**.**

Through comparative analysis of interviews, in relation to categories, gaps and findings were revealed that were supported by the data. In addition, the participants shared their ILP goals and final screencast projects. The archival data were helpful in seeing in written form the priorities and strategies that were discussed in the interviews. When analyzing the data from interviews, ILPs, and final screencast projects, I looked for indicators to see how reflective the self-evaluation process was and if the work aligned with what each participant said about the process. The artifacts in the archived data showed how participants utilized the ILP goals. That

data, along with the final screencasts that the participants created, told the story of participants' learning and growth in the program.

Summary of the Findings

Analyzing the attitudes and beliefs of new teachers towards California induction policy requirements revealed a shift in most participants from initially negative to ultimately positive attitudes toward induction. The participants' beliefs and attitudes towards induction were highly influenced by other teacher's induction experiences. Therefore, they entered induction with biased attitudes that were not based on their own experiences. Participants in this study shared that many of the strategies they learned from induction were carried into postinduction teaching. Thus, induction did have a positive effect on teaching after these teachers participated in an induction program. In addition, most participants shared that induction positively affected their confidence levels after the program. Participants admitted that higher confidence is an indicator that they will stay in the profession; however, many of the participants did not directly attribute their retention to induction.

Presentation of the Data and Results

The presentation of data analyzes the positive and negative attitudes and beliefs that new teachers shared about induction policy and requirements. In addition, the data reveals the experiences and needs that the participants discussed in the interview process. The results of the research show how strategies learned during induction were carried into Postinduction teaching.

CA Induction Policy Requirement

New teacher induction programs and policies are spreading nationwide. "Of the 29 states that now require some type of support for new teachers, barely half (15 states) require support in

teachers' first and second years" (Goldrick, 2016, p. iv). California is 1 of the 15 states that require induction support during the first 2 years.

> California has a two-tiered credentialing system for teachers. Preliminary programs prepare candidates to obtain an initial teaching credential through successful completion of required coursework, fieldwork, and a performance demonstration of their knowledge, skills, and abilities. The second tier of preparation is a two-year job-embedded individualized induction program that is focused on extensive support and mentoring to new teachers in their first and second years of teaching (CTC, 2020, para. 1).

The requirements that the California Commission on Teacher Credentialing (CTC) has for new teachers to transition from preliminary to clear credentials results in a variety of attitudes and feelings in new teachers. These attitudes and feelings range from positive to negative reactions towards the need to complete the California induction policy requirements in order to acquire a valid license and to be able to continue teaching.

New Teachers' Attitudes and Beliefs

The interviews exhibited that new teachers' attitudes and beliefs towards induction are closely tied to what they have heard from other teacher's induction experiences. Most of the teachers in this study chose the university based online program they participated in. One of the participants was required to participate in this program as the district has a partnership with the university and pays for the program for its new teachers. For some teachers, the attitudes of induction programs from other teachers influenced program decisions. That is, when given a choice in programs to participate in, teachers listened to their colleagues for program advice.

For many of the participants, negative attitudes of induction from colleagues created negative attitudes in them as they entered induction. Some participants entering the program

expected to be overwhelmed during induction, based on what other teachers had said. One participant spoke with people who had done induction 5 to 10 years ago and was told by them it was extremely tedious, and it was a lot like redoing your Teacher Performance Assessments (TPAs) from the preliminary credential program. This attitude was based on the previous induction standards for the Beginning Teacher Support and Assessment Program, also known as BTSA. The negative attitudes of other teachers towards BTSA influenced new teacher's attitudes prior to induction because BTSA was often described as busy work, brutal, and a waste of time. However, many of the participants shared that their colleagues, in retrospect, they found induction helpful, giving new teachers hope that something positive would come out of the experience.

Yet, this skewed attitudes that was being shared with new teachers was an inaccurate portrayal of what the incoming new teachers were about to experience because of the shift in the induction standards in 2016 that eliminated BTSA and revamped the induction program standards. Many teachers were unaware of this shift. This change resulted in an attitude shift for many of the participants in this study. Some of the participants had two diverse induction experiences, with one year of BTSA (old standards) and one-year of induction (new standards). Others only experienced one year of induction under the new standards but their expectations based on colleagues' opinions were completely opposite of their actual experience. The CTC received feedback from BTSA participants and districts that too much paperwork in first year (BTSA) made it a negative experience. This sentiment was echoed in the interviews for this study. The interviews revealed that those candidates who started in a required BTSA program were reportedly stressed, had a negative attitude, found no meaning in the program, and viewed BTSA as just busy work.

While some of the participants in this study originally had negative attitudes and beliefs regarding induction and the state requirements, once they began participating in the university-based online program, induction participants saw how the program was individualized to directly relate to their classrooms and noted value in the program. Often this new view, led to a more positive attitude. Second-year candidates who had changed programs, identified that their change in attitude had to do with relevance of second-year induction and alignment to requirements at school. In fact, the participants reported induction was a great program. One participant shared that induction was a quality experience and worth the time and effort. In addition, positive attitude shifts occurred because the participants felt the program was not overwhelming due to being tied to the classroom and well-organized, as well as having more in-depth thinking and reflection. *Busy work* was also a term that was repeated by many participants. *Busy work* was defined as anything repetitive. One participant summarized his experience as,

> Going in I was apprehensive that it would be a total waste of my time. A lot of times university education classes have a reputation for not being very helpful. And so, I was apprehensive that I would just be doing stuff to do stuff, that the program would focus on procedural evaluations, and that it wouldn't be a very good experience. I was going to say the program wasn't as bad as I expected, but I'll go further than that, it was pretty good. I thought it was helpful (Participant 7, Interview 2).

However, the positive attitudes and beliefs in the new program, did not discount that even though induction was beneficial, it was also time consuming. While the work was not considered busy work, it was still additional work. Even though attitudes of induction changed to a more positive outlook for many participants, the one thing that did not change was the frustration of having more to do when you are a new teacher.

A few of the participants in this study moved from a district-sponsored BTSA program to the new university-based online induction program meeting the 2016 Induction Standards. They compared their different experiences and attitudes toward the differences in the programs. One participant shared

> My first year felt more like a class and homework, very rigid with assignments. My second year felt more like you're a teacher, we expect you to know how much you need to reflect, almost more like an adult, it felt better because it felt like it gave me the freedom to actually use induction how I needed it. (Participant 8, Interview 1)

Two participants admitted to not having a shift in attitude during the program. There was a negative connotation because induction was being required. Being told to do it made induction feel redundant to the preliminary credential program. The only motivation one teacher had to be in induction was to keep a credential and clear it. Yet, in the follow-up interview, this same participant shared that induction was a great experience, no complaints, just the extra time in the schedule every week was a challenge but beneficial. Another participant admitted there were parts of induction to be grateful for, but the overall attitude was that induction sounds exactly like what was just done in a preliminary teaching credential program. According to a participant induction seems repetitive, just one more hoop to jump through.

Needs of New Teachers

Induction programs are designed to support the needs of new teachers. The most common need participants reported was classroom management skills and needing regular support while implementing the strategies. Participant 3 said that an important role of her mentor was discussing strategies for classroom management and student interaction (Interview 1). An additional participant stated that an important part of induction for her, was to see evidence of

student success and a change in classroom environment. Weak preservice teaching preparation in classroom management sets new teachers up for low confidence in dealing with behavior challenges (Participant 6, Interview 2). Specifically, participants wanted to know how to handle certain classroom situations. Other management priorities include strategies to engage students and how to motivate students. While classroom management strategies are introduced in preservice programs, classroom issues are more pronounced and a higher priority once new teachers have their own classrooms.

A second priority among many of the participants was training in time management. Participant 8 admitted that her first year of teaching, she was terrible at planning and time management, but her mentor assisted with these skills (Interview 1). Based on the interview responses, many new teachers feel there is not enough time in the day and that they need to become more efficient in managing the work hours they have. Having enough time to make lesson planning a priority is a skill new teacher's need to learn. Prioritizing time is an organizational skill that can be enhanced if new teachers are given time to collaborate more with a mentor and their more experienced peers. Organization can also be enhanced through setting weekly goals and having a weekly check in with a mentor. During these weekly coaching sessions, new teachers learned how to reflect in a less time-consuming manner.

A third priority need the participants reiterated in their interviews was how to handle parents. For example, participants needed extra support dealing with parent complaints and conflict resolution in their first years of teaching. In addition, new teachers need guidance on communication skills with parents. New teachers tend to over communicate, which can confuse parents and they need coaching on direct but vague communication.

A fourth common need mentioned in the interviews was assessment tips and techniques. Some private schools put less focus on assessment and data driven instruction than some of the public schools. One participant who taught at a private school admitted that the school is informal with assessment, so she needs additional training in the area of assessment and analyzing data. Other participants shared that they had weak preservice teaching preparation in differentiation and were not trained to review data. It is common for new teachers to need support on analyzing what students are supposed to be learning through the standards and measuring long term outcomes.

While these four areas were the most frequently mentioned weak spots, other needs that were specific to individual participants showed the vast necessity for support of new teachers. These needs included a refresher on teaching techniques, California Standards for the Teaching Profession (CSTP), Common Core State Standards (CCSS), and the ethics of teaching. Also, new teachers need to stay current on new teaching trends and practices through recommended resources, articles, and videos for professional development. New teachers need to learn routine activities such as accessing the school profile and standards, not devote all their time on reflective practice. Specifically, one teacher shared her need for aid with specific student needs, "I believe a little bit more about how to help students with ADHD or with social anxiety" (Participant 9, Interview 2). Another admitted that she, "stopped using the strategies learned in the program and then had to implement them again because instruction was not as strong" (Participant 11, Interview 1). Thus, exemplifying that teacher's needs continue after induction is over.

While the needs list of new teachers is vast, the participants found many of the supports in induction helpful in developing these skills. The most effective link for assisting the needs of

new teachers is the mentor. Mentors provide the knowledge, skills, experience and emotional support most new teachers need to succeed. However, participants also found the support of their staff a useful resource in gaining knowledge and skills. Knowing they could turn to staff members for advice and assistance made them feel less isolated. Many discussed the backing of their administration. While most new teachers are timid to tell their administrators when they are lost or need assistance, they appreciate it when administrators take the initiative to listen to their needs and offer solutions for assistance. Also, observations of other teachers at the same site and different sites were helpful and allowed for the collection of new ideas.

Beliefs of New Teachers

The beliefs that participants had regarding timelines and expectations of induction were varied. Many believed that induction should be required during the first year of teaching because it is the hardest year and there are many things teachers do not learn in preservice programs. During the first year of teaching, induction helps new teachers establish competence and let them realize that they are not alone. While this idea is in alignment with what the CTC recommends, none of the participants in this study followed this route. In fact, some of the candidates intentionally waited for induction so that they could receive the one-year early completion option (ECO) and participate in induction for a shorter time. While two years was a good amount of time for induction for one participant, she admitted that "two years is very daunting and a long time and many people are waiting three years to get ECO" (Participant 10, Interview A). Then there were a few participants who disagreed with their peers believing it would be better to wait for induction because the first year of teaching is very challenging.

> First year teachers are not ready to talk with mentors, create lessons and then watch themselves back and critique their teaching, they may be too hard on themselves or be

> able to make changes. It is important to make mistakes first before you can go in and pinpoint areas of need. (Participant 1, Interview 1)

Based on this perspective, the participant went on to say, "induction should start year three of teaching and 1 year is enough for experienced teachers" (Participant 1, Interview 1). Similarly, other participants agreed, and did not recommend induction first year because even though during the first-year new strategies are helpful, this year is overwhelming. They suggested that the second, third, or fourth year are ideal to begin induction. Participants neither agreed on the appropriate start time for an induction program nor on the timeline for the appropriate duration of an induction program. A proposed length of time of 1 year of induction was echoed by some participants, whereas other participants completely disagreed and wished they had a longer induction experience. They suggested 3 years instead of 2, with the first year being just in time support and no requirements. One even believed that new teachers should have a mentor to check in with during the first 3 to 4 years of teaching.

A common concern among new teachers is that the cost incurred to participate in induction is a hardship for teachers whose school does not pay for the state requirement. The cost of induction is an issue for teachers who do not have the funds to pay for a program on their own yet need induction to continue teaching. One teacher admitted that when the school stopped paying for induction it became a financial struggle for teachers at that site. Also, colleagues had negative things to say about induction such that it was time consuming, but most complained about the cost.

Despite the history induction programs have throughout the United States and around the world, one participant said that she "sees induction as a new trend" (Participant 2, Interview 1) and believes induction should be a national requirement so all teachers can develop a growth

mindset and have mentor support. When induction is implemented, “nobody wants to waste time, induction should keep relating back to the students and teaching because it should be applicable” (Participant 10, Interview A). Based on the experiences of these participants, “video recording, repetition, and teaching practice is important for new teachers” (Participant 11, Interview A) and learning to reflect and set goals for self-growth is of great value. Many participants believe in the importance of induction within a well-organized program.

Review of Attitudes

Analyzing the feelings of new teachers towards California induction policy requirements revealed shifts between negative and positive attitudes. The interview data revealed new teachers’ beliefs and attitudes towards induction are influenced by other teacher’s induction experiences. The shift from BTSA requirements to the new induction standards in 2016 (CTC, 2020) required a more individualized induction approach that related directly to classroom teaching and learning and has changed the attitudes of new teachers towards induction requirements. With this new model, induction programs are designed to support the needs of new teachers with the expectation that the needs must be discussed and met through mentor support. The timeline for induction is controversial (see Table 1). Clear guidelines help streamline the requirements for California induction policy.

Table 1

Induction Timelines

Participant Number	Year in Career Participants Started Induction	Years in Induction	Recommended Year to Start Induction	Recommended Number of Years for Induction
#1	Year 4	1 Year	Year 3	1 Year
#2	Year 6	1 Year	Year 2	1 Year
#3	Year 6	1 Year	Year 1	1 Year
#4	Year 4	1 Year	Year 1	1 Year
#5	Year 4	1 Year	Year 3 or 4	1 Year (should vary from person-to- person)
#6	Year 1	2 Years	Year 2 or 3	2 Years
#7	Year 10	1 Year	Year 2 or 3	No opinion
#8	Year 1	2 Years	Year 1 or 2	2–3 Years
#9	Year 1	2 Years	Year 1	2 Years
#10	Year 1	2 Years	Year 2	1 Year
#11	Year 1	2 Years	Year 1	3 Years

Overall Attitudes of Induction

Introduction. The overall induction attitudes of new teachers can be divided into four main categories: timelines, preinduction attitudes, postinduction attitudes, and the effects of teaching postinduction. The timelines the participants shared help to clarify the picture of induction participation and how the time spent in induction influences participants attitudes of induction requirements.

The Induction Timelines table shows representation of when in their career participants started the induction process and their attitude toward the effectiveness of the timeline they followed. The CTC recommends teachers start induction during their first year of teaching and requires induction to begin by the fifth year of teaching. Extensions are sometimes offered to teachers who have moved from other states or had life circumstances that blocked them from teaching or starting induction. If candidates are enrolled in an accredited induction program, the CTC offers extensions of the preliminary credential. Therefore, some of the participants in this study started induction after year five. Based on the candidates' attitudes, there was a range of recommendations for the appropriate length of programs from one to three years. The variation of recommendations seemed to relate to the experiences of the participants in induction. Most teachers who had participated in one year of induction thought this was an appropriate length of time, whereas teachers who had participated in two years of induction thought two or more years would be an appropriate length of time. Evidence in the Induction Timelines table indicates a range of recommended start times with approximately half of the participants thinking year one of teaching would be the most effective start time for induction and the other half thinking new teachers should wait until year two or as late as year four to start induction. Most of the candidates who started induction during their first year of teaching thought the first year was the best time to start, whereas those who started after their first year preferred to start induction during year two or later.

Preinduction attitudes. All the participants had preconceived notions about induction that impacted their feelings toward the induction requirements and their attitude as they started the program. Table 2 shows overall attitudes of participants using a key word they shared in their interviews. Only one participant started off with a positive attitude. Two were indifferent or had

mixed feelings. The other eight had clear negative attitudes when they started induction. Looking at participants' preinduction attitudes led to a better understanding of the mindset and motivation of new teachers to participate in induction. Most of the candidates felt as if they were being forced to do induction and just needed to participate to complete the requirement and clear their credential.

Postinduction attitudes. Many participants recognized a change in their induction attitudes after participation in the program. Postinduction attitudes exposed value in preparation and more participants felt like they developed competence for teaching. As a result, eight of the participants noted a positive change in attitude and beliefs towards induction. The three participants who noted no change in attitude started with a range of emotions from frustration, mixed feelings, and a good attitude. All three of these participants admitted to completing the requirements. Meaning they completed induction by applying minimum effort without a growth mindset in order to receive a clear credential.

Table 2

Overall Induction Attitudes

Participant Number	PreInduction Attitudes	PostInduction Attitudes	Admitted Change in Attitudes (yes/no)
#1	negative	beneficial	yes
#2	concern	worthwhile	yes
#3	frustration	sees value	yes
#4	frustration	frustration	no
#5	indifferent	positive	yes
#6	mixed feelings	mixed feelings	no
#7	apprehensive	helpful	yes
#8	frustration	helpful	yes
#9	good attitude	good attitude	no
#10	waste of time	meaningful	yes
#11	requirement	appreciative	yes

Effect on Teaching PostInduction

Many participants noted changes in their teaching due to induction. These changes included strategies or tools that were taught in induction that participants carried over into their classrooms Postinduction. When implementing new resources and strategies, participants noted that student outcomes improved and, therefore, they decided to keep these tools in their teaching. For example, a participant had focused her ILP goal on English Learner (EL) communication to

ensure the students were understanding the learning goals. Therefore, when required to observe another teacher, she chose a teacher that focused on this skill. Thus, the demo lesson allowed her to learn and implement new teaching strategies that she carried over into her current teaching. A different participant discussed how she continued using strategies she learned in induction to engage students.

Another candidate stated she "felt no more or less prepared from induction to teach" (Participant 4, Interview 1). However, in the follow-up interview, she admitted that she had learned new strategies for classroom management, reading groups, and transitions that she carried into her current instruction and that, "small changes can make a big impact" (Participant 4, Interview 2). Likewise, an additional participant claimed induction did not affect his teaching preparation. Nonetheless, in the follow-up interview he discussed how he continued to use data more formally after working on this skill with a mentor and analyzing different levels of student work. Whether, participants recognized that induction changed their teaching or not, an apparent outcome of participation in induction is improved data analysis skills, which was a common theme in the interviews. An additional participant admitted to using data analysis postinduction for grouping, interventions, and objective parent communication because she became more comfortable with this skill and realized it is an objective way to analyze student learning.

In addition to initial and follow-up interviews, archival data was also reviewed to collect evidence. This data was especially relevant when comparing the answers that participants gave regarding their ILP goals and final screencast project information. Induction goals that were built into final projects were often strategies and activities teachers continued to use afterwards. Looking at archival data helped to reinforce the significance of goals and final projects. The aim was to see if there was a consistent theme between what the participants said during the

interviews and what was indicated in their archival data that was created as part of the induction program. One participant discussed how she created a screencast on culturally relevant pedagogy research for induction and, with permission from her professor, blended it into research for her master's degree class project. Another participant explained how she learned in the final project to focus a goal on student needs when traditional methods of instruction were unsuccessful in her classroom. She taught a math-fact song to help students with memorization and the data results showed a significant increase in math skills. Similarly, another participant found the final project screencast to be a valuable organizational tool and planned to use it again in the future as a reference tool for all students. Specifically, he planned to create screencasts for absent students to catch up on missed classwork. The archival data helped to validate the teaching strategies that were learned in induction and continued to be used afterwards.

Conclusion. Looking at the overall induction attitudes of new teachers is multifaceted. Through interviewing teachers and analyzing archival data, their attitudes of induction were revealed through timelines, preinduction attitudes, and postinduction attitudes. Also, the data showed how strategies learned during induction were carried into postinduction teaching. Overall attitudes of induction and changes in feelings were described through the experiences and knowledge the participants acquired. One participant best summarized her change in attitudes tied to how induction changed her teaching. "My complete 180 degrees turn [was] from teaching content versus seeing on how they are understanding content; that's how induction changed me" (Participant 11, Interview 2). Attitudes of induction are not just about the program itself or the requirements but are also about the feelings one has toward the process.

The Role of Confidence in Induction

Introduction. Through the interview process, the role that confidence plays in induction and teaching was explored. Based on the interview data, teaching and retention seem to be tied to confidence rates. In this study, three teachers who completed a university-based online program did not necessarily see a direct link between their attitudes towards the requirements of induction and their teaching ability or retention in the field. However, the data responses indicated this theme merited further analysis.

PreInduction Confidence

New teachers' attitudes and explanations of early confidence levels show that the participants entered induction with lower confidence rates than upon completion (see Table 3).

Table 3

Pre and PostInduction Confidence

Participant Number	Admitted a Positive Change in Confidence after Induction (yes/no)	Attributes the Change to Induction (yes/no)
#1	yes	yes
#2	yes	yes
#3	yes	yes
#4	yes	no
#5	yes	yes/no
#6	yes	yes
#7	no	no
#8	yes	yes
#9	yes	yes
#10	yes	yes
#11	yes	yes

Role of mentoring. One major component that led to increased confidence levels was mentoring. When induction candidates had a positive relationship with their mentors, they had a more positive attitude and experience in induction. One candidate pointed out, “I don’t think I would have had the confidence in knowing the benefits of mentoring and the benefits of really having like, a critical eye on your own practice, if I hadn’t have done an induction program” (Participant 1, Interview 1). Mentors helped boost confidence through positive interactions,

letting them know they were not alone, and strengthening participants' teaching strategies. For many of the teachers, confidence came from the experience of the mentor and learning to measure student achievement. It was pointed out that mentors helped develop confidence by guiding candidates to see that all the problems are universal to teachers and that no problem is unique to any given teacher.

In contrast, one participant did not think the mentor affected or changed his confidence level. Another did not think induction led to her increase in confidence, yet she admitted hearing positive feedback from a mentor and the mentor's affirmation of being proud of the work being done through induction, and that it made her even more confident. Based on what was shared in the interviews, confidence can improve over time when teachers focus on one goal and improve towards reaching it. Rather, the candidates who did not attribute a change in confidence levels due to induction, admitted having high levels of experience and confidence when starting induction. Yet, there were other participants who also admitted to high levels of confidence when entering induction but also admitted their confidence grew. These teachers seemed to have more open minds to a growth mindset.

Role of observing. A second component that helped develop confidence levels was observations of other teachers. Observations of fellow teachers helped with participants' own teaching by providing new strategies, seeing how similar strategies were implemented, and observing similar challenges in experienced teachers' classrooms. Specifically, for one participant, an observation "helped with organization of guided reading and new strategies" (Participant 10, Interview 2). Watching other teachers gave reassurance of one's own teaching by reinforcing similar teaching strategies, curriculum, and classroom management implementation. In addition, observations of other teachers were helpful to see a new perspective and listen to

student responses from a different lens. Most admitted that observing another teacher improved their own confidence because they witnessed that all teachers deal with similar issues and that it is common to get flustered at times. One candidate mentioned that observations of other teachers did not affect his confidence level.

Role of gaining experience. A third component that participants attributed to increased confidence levels was teaching experience. Participants explained how length of teaching experience and exposure to different issues helped develop confidence in the classroom. One participant did not attribute improved confidence to induction, but rather to each year of teaching experience. Similarly, another participant entered the program with high confidence and felt his confidence level remained consistent, if not a little higher after another year of experience.

PostInduction Confidence

All teachers admitted their confidence levels improved; however, as mentioned before, not all participants attributed this gain to induction. As evidenced in Table 3, one participant claimed his confidence did not change and two of the participants did not attribute their change to induction. The other eight participants felt that induction had a direct effect on their increased confidence. Participants identified their transformations as evidence through overall confidence in the classroom, higher test scores, improvement in transitions, and stronger classroom management. Other indicators included being more comfortable teaching content that is accessible and engaging, assessment and data analysis, using resources more frequently, and feeling happier and more relaxed.

Retention

Two of the participants have left the classroom, one is a support teacher and the other is participating in a homeschool co-op. While some participants have left classroom teaching, all

intend to stay in the field of education. The future career goals of participants included classroom teaching, non-traditional school settings, administration, and curriculum development. One participant left classroom teaching to have a family and homeschool. This decision was not influenced by California induction policy.

Participants who discussed the possible effect induction might have on retention rates believed that if teachers have a positive experience in induction they would be more likely to stay in education, whereas if they had a negative experience they may realize teaching is not for them and leave the field. One participant acknowledged that "induction did influence staying in teaching because it is a support system with a weekly check in" (Participant 2, Interview 2). Another echoed this sentiment stating, "it definitely helps" (Participant 4, Interview 2). The positive experiences of teachers in induction, led some participants to discuss their desire to make education their long-term career, and how induction made them enjoy teaching more. Other participants do not attribute retention to induction per se, but rather to higher confidence levels. Higher levels of confidence led to staying in teaching.

Many of the candidates also credit retention rates to the rigorous process of becoming a teacher in California. They ascertain that teachers must work hard to get their credentials and do not want to leave the field after putting forth so much effort. There are many requirements to become a teacher in California: standardized tests, preservice credential program, embedded signature assignments, performance assessments, induction, and so on. A candidate expressed her view regarding these requirements saying, "They [CTC] make sure teachers are committed, and then they have worked so hard to get their credentials they don't want to stop teaching" (Participant 10, Interview 1). One participant voiced that induction did not affect his attitude towards staying in teaching, but it also did not change his mind to leave education. Rather, he

attributed retention to working hard to become a teacher; but he also worked in a professional industry outside of education and teaching makes him feel better each day, so he will stay. Another participant affirmed,

> If someone has made it to that point of induction, they're going to stay and retain their credential and stay in the field. I saw many, many students dropping out in the credential program and then, student teaching, but I did not hear of anyone dropping out in the middle of induction. Though I think if you've made it to that checkpoint, you're pretty sold out to the profession. (Participant 4, Interview 2)

An additional participant communicated that induction positively affected her attitude to stay in teaching and the long road in teaching motivated her to stay in the profession.

Other participants who did not think induction affected retention thought that a stronger force to continue teaching is based on teacher's love for teaching and dedication to the profession. One of the candidates with these beliefs stated,

> It's one of those things that you need to do in order to be able to teach. It's not necessarily something that I think will help me in the long term because in 10 years I'll probably forget a lot of what I did in induction. So, I don't think it's necessarily helping me in the long term. But I can see how it frontloads a lot of the experiences that I need to have to become a seasoned teacher. (Participant 6, Interview 2)

Another articulated "I kind of liked to teach before and I like to teach after, and I don't think I was going to leave the profession" (Participant 7, Interview 2). So, while induction may have influenced retention for some new teachers, many of the participants in this study did not directly attribute retention to induction.

Chapter 4 Summary

Most participants shared a variety of ways that induction positively affected their teaching and confidence levels after induction. One participant admitted that induction proved she could do more things at once and she grew in confidence knowing she could do more than she thought; she learned time management and how to balance time with work and home life. More confidence brings about a sense of professional pride and allows new teachers to feel more qualified to teach. While there seems to be a connection between induction and retention rates, many of the participants did not directly attribute their retention to induction.

The findings of this qualitative case study aligned with some of the existing literature. Like the data collected in a qualitative study by Gaikhorst et al. (2014), this study also found mixed results on teachers' attitudes toward induction. Some of the teachers reported positive attitudes, while others reported negative attitudes. However, the findings in this case study differed from the results reported by Williams and Gillham (2016) who reported that teachers feel that induction is a waste of time. While the teachers in this case study did not all have positive attitudes towards induction, none of them reported induction as a waste of time.

To complete this study, constant comparative analysis was used to analyze the data. First, the data was grouped into open coding categories (Birks & Mills, 2013). Next, each of the transcripts was slowly reread, to identify key ideas and themes. (Glaser, 1978). These themes were highlighted in multiple colors and the ideas were rewritten as memos in the form of sentences or paragraphs. Finally, analysis was done to demonstrate how the concepts compared to each other by creating a matrix based on the identified themes, to look for relationships and identify patterns (Hatch, 2002). The findings presented in this chapter were supported by the triangulation of data collected through initial interviews, archival data, and follow-up interviews.

As a result of the analysis of the data, three prevailing themes emerged: attitudes, feelings, and beliefs toward the California induction policy requirement; overall attitudes of induction; and the role confidence plays in induction and retention. The conceptual framework for the research was supported by the self-efficacy theoretical framework of Bandura's (1977) and Bandura's (1986) social cognitive theory. Chapter 5 will further summarize the results in relation to previous induction literature. Furthermore, Chapter 5 will address the limitations of the study; implications of the results for the practice, policy, and theory of induction; and recommendations for further research on induction programs.

Chapter 5: Conclusions and Discussion

Introduction

Induction is commonplace worldwide as a practice for mentoring and supporting new teachers. Many states in the United States of America put a priority on new teacher development by providing some type of induction program. Of the 24 states that have induction programs, 15 of these require induction support for their new teachers during their first two years of teaching (Goldrick, 2016), one of them being California. Korthagen (2017) identified the research gap between the theory that is implemented through requirements and the experiences that induction candidates participate in. "A lot of knowledge is available about how teaching could become more effective at influencing student learning, and it would be ideal if this knowledge would be applied by teachers. However, an overwhelming number of studies have shown that there is a huge gap between theory and practice" (Korthagen, p. 387). Through reviewing the data of this qualitative study, I was able to examine the effect on teaching and retention of novice teachers based on their beliefs and attitudes regarding California induction policy requirements, after they have completed a state-required induction program leading to a clear California teaching credential. The data collected was based on the experiences of teachers, allowing them the opportunity to determine whether or not their experiences with induction were applicable to their careers and, if so, how induction affected their subsequent teaching and retention in the profession.

To better understand the context of the data, some key terms will be defined from an academic perspective. *Beliefs* for this study, is defined as the perception's candidates discuss or demonstrate regarding induction and their experiences. The term *attitude* is defined as "the positive and/or negative emotions the participants portray regarding teaching, mentoring,

induction, or other related concepts." *Feelings* refers to "the participants' descriptions of their opinions and emotions regarding induction, teaching, and their mentoring experience. These first key terms are all based on emotion and attitudes, whereas the key terms that are crucial to the second part of the research question, teaching and retention, are based on tangible evidence. *Teaching* is defined as the career of instructing others in learning and growth. To see if induction influenced teaching, archival data and interview questions posed about student data and evidence of growth were referenced. Lastly, *retention* in this study is defined as "the willingness teachers have, to continue teaching." This element was evidenced by participants' interview responses, discussing their career intentions.

The purpose of this chapter is to summarize the findings of the study by explaining how the conceptual framework for this study is linked to the research data. The discussion of the results in relation to the literature compares how the findings align with the Chapter 2 literature review as well as with more current literature. This chapter also covers the limitations of the study and future implications for results, policy, and theory. Chapter 5 concludes with recommendations for further research. The intent of this study was to supply additional insight on induction, to the field of education. Therefore, this chapter also assesses how well the study addresses the problem and what was accomplished through hearing the perspectives of recent induction participants.

Summary of the Results

Bandura's (1977) theory of self-efficacy and social cognitive theory (Bandura, 1986) were the conceptual frameworks used to analytically address this qualitative case study. *Self-efficacy* refers to how people believe they will be able to complete a task in certain situations. In the case of this study, it refers to how teachers view their attitudes towards teaching and retention

in the field of education. Self-efficacy can be a strong predictor of future performance because people look to their past experiences as a judge to what they expect in future performance (Bandura, 1977). The initial research questions were positioned to draw out participant's past teaching experiences, past feelings about induction requirements, and past attitudes based on their peers' feedback. The follow-up interviews were focused on post induction feelings and attitudes to capture data on changes in attitudes in relation to induction, teaching, and retention. The second element of the conceptual framework was social cognitive theory, which pertains to how individuals develop personally through social interactions (Bandura, 1986). In the case of this study, it refers to the relationship's induction candidates had with their mentors and how the participants grew based on this experience and relationship.

Through the interviews and archival data, evidence of growth, teaching strategies that were learned during induction, and postinduction teaching techniques were discussed. The first step of comparing data was open coding, this involved grouping data into categories. As the data was coded, 12 repeating categories were identified. They included: attitudes, beliefs, feelings, California induction policy requirements, confidence, pre and post confidence levels, retention, timelines, preparation from induction (continuing practice), role of mentor, and teacher needs. As themes in the data were explored, these 12 categories were combined into three prevailing themes: the attitudes, feelings, and beliefs around California induction policy requirements; overall attitudes of induction; and the role confidence plays in induction and retention.

Attitudes, Feelings, and Beliefs Around California Induction Policy Requirements

Since the early 2000's "there has been a growth of support, guidance, and orientation programs—collectively known as induction—for beginning elementary and secondary teachers during the transition into their first teaching jobs" (Smith and Ingersoll, 2004, p. 681). Literature

has shown that induction is accepted worldwide as a tool to develop and retain teachers (Darling-Hammond, 2017). Beginning Teacher Support and Assessment (BTSA) was the first California Model of new teacher support that was a reflective assessment process that was based around multiple years of study, mentoring with an experienced colleague, and reflective practice (Lucas, 1999, p. 45). This model was supported by and referenced in the research of Darling-Hammond (2012) out of Stanford. Therefore, the requirements for induction in the state of California are becoming common practice elsewhere. This study revealed the mixed attitudes, feelings, and beliefs of these participants towards California induction-policy requirements; some of the teachers reported positive attitudes, while others reported negative attitudes; many showed more positive attitudes after participating in the program. While the teachers in this case study did not all have positive attitudes towards induction, none of them reported induction as a waste of time.

The attitudes towards time of participation in induction were greatly influenced by when the participants started their induction programs in their careers and the time they spent in induction. There were five participants who completed the required two years of induction but qualified for an Early Completion Option (ECO) at the university level because they had already completed a year of induction elsewhere; therefore, they only completed a single year in the new program. The first year for all of them was completed in a district program and the second year in the university-based online induction program. All five of these participants transferred either because they left the district, or the district induction program shut down. Of these five participants, one claimed the two programs were comparable, one liked the district program better, and three preferred the university-based online induction program. Of these same five participants, one thought induction should only be required for one year, whereas the other four thought induction should be a 2- or 3-year program. In contrast, the six participants who

qualified for ECO due to years of experience had all been teaching at least four years when they joined induction. Five of these highly experienced participants thought that induction should only have a 1-year requirement, and the other had no opinion on a timeline, saying induction should be an individualized timeline. So while there was an outlier in each group, there were patterns in the attitudes that showed that participants who started in year one and completed 2 years of induction preferred their timeline and those who started induction later in their careers and completed one year of induction preferred their timeline—at least 2 years for less-experienced teachers and 1 year for highly experienced teachers, which is in alignment with the California induction standards (CTC, 2016).

Overall attitudes of induction. The overall attitudes of induction are demonstrated through the effect's induction had on teaching after participants completed the program. Ingersoll, a new teacher induction expert, described induction as the process of new teachers conducting research under the guidance and support of a mentor or colleague (Smith and Ingersoll, 2004). The participants in this study, created ILP goals based on their own needs and made progress on these goals by conducting action research in their classrooms. Empowering teachers to choose the areas of study in which they found deficiencies through self-assessment helped accelerate their development because of their self-interest in the study. In addition, participants reported that having the freedom to choose from a variety of topics helped lessen stress within the induction program. Based on the archival data, action research, and final screencast projects, induction had a positive and lasting effect on the participants' teaching. This data supports the idea that effective induction programs help teachers develop their self-efficacy (Helms-Lorenz et al., 2013).

Many participants noted lasting changes in their teaching due to their work with induction goals and projects. In addition, archival data showed how strategies learned during induction were carried into postinduction teaching. These lasting changes included implementing Google Docs, incorporating more collaborative conversation between students, analyzing student data to determine needs and plan subsequent lessons, applying reflective practices, continuing to grow through their interactions with other teachers, and having the confidence to take risks. Also, having a knowledge of tools to help self-assess goals such as rubrics, CSTPs, the Continuum of Teaching Practice, comparing videos of self-teaching similar content, and written reflections helped the new teachers continue reflective teaching without the guidance of a mentor. For example, one participant used induction as an opportunity to develop her action research skills in the classroom. She chose to focus on language learners and conduct research on whether academic discussion helped them learn the content. At the same time, she was on an equity team at school and was able to merge the work of the equity team with her research because they were reading several related books, going to conferences, listening to speakers, and doing work on campus and in multiple classrooms on this topic (Participant 6, Interview 2). The work of the equity team is still being carried out in the school and the research implications are being shared with all teachers on staff. Another participant, who is a high school teacher, admitted that the screencast was a new and easy to use tool for him. He still finds the screencast helpful in the classroom because he uses it to prepare presentations for students who are absent or to allow all students to have a clear and accessible review (Participant 7, Interview 1).

The role of confidence in induction and retention. In addition to exploring the overall effects induction had on teaching, another purpose of the study was to examine the effect the state-required induction program had on the retention of the participants. “The objective of these

support programs is to improve the performance and retention of beginning teachers, that is, to enhance, and prevent the loss of, investments in teacher's human capital" (Ingersoll & Strong, 2011, p. 225). Yet, there is a gap in the literature regarding the impact induction has on confidence and retention.

> What is lacking is data to confirm whether or not the current, established mentoring programs in schools and districts are effective at giving new teachers the confidence they need to be successful in the classroom. Research has clearly indicated that instilling confidence directly correlates with a teacher's decision to stay within the teaching profession. The confident teacher, armed with the skills to handle the ever-changing world of education, will positively impact student achievement. (Callahan, 2016, p. 10)

This study was designed to fill this gap by analyzing the attitudes of teachers towards their confidence levels after they had completed induction. The participants reflected on their Preinduction and Postinduction confidence levels and how the support they received affected the likelihood that they would stay in teaching. While most participants recollected that induction had positively affected their teaching and confidence levels, many of the participants did not directly attribute their retention in the field of education to induction. Rather, they credit their retention to the rigorous process of becoming a teacher in California and the commitment they have made to the profession.

Discussion of the Results

As the researcher, my own interest in the topic of exploring teachers' attitudes and beliefs toward induction stemmed from eight years of work with induction candidates. I often, heard complaints from new teachers about the need to complete induction to acquire a Clear Credential in California, resulting in the question of whether these attitudes persisted after the candidates

completed induction. While I did not share my own perspectives on induction requirements with the participant's in this study, I expected the attitudes and beliefs of the teachers in this study to be positive toward induction if the participants themselves saw the benefits of mentoring and support after they had completed a program. The main objective was to examine the effect on teaching and retention of novice teachers based on their beliefs and attitudes regarding California induction policy requirements after completing a state-required induction program leading to a clear California teaching credential.

Knowing that self-efficacy (Bandura, 1977) is an important part of feeling confident in one's profession, the connection between induction and classroom confidence seemed to make sense, I believed that after completing the induction process, teachers would admit to feeling more confident with their teaching ability because the literature showed that teachers' attitudes toward the teaching profession influence their self-efficacy (Kanadlı, 2017). Since I had previously, regularly heard negative attitudes regarding induction, there existed the expectation that the participants would report that they initially had a negative attitude about being required to complete a new teacher induction program. But another expectation was that the participants would also report changes in their beliefs toward the program after they had completed the requirements. For many of the participants in this study, this was the case (see Table 3). That said, my assumptions for this study did not stand in the way of collecting evidence. In fact, the evidence in Table 3 shows that my assumption was incorrect for three of the participants, albeit accurate for eight of the participants. These three participants admitted no change in perception after completing induction, one continued to have negative feelings, another continued to have mixed feelings, and the third continued to have positive feelings. Whereas, my assumption was

that all participants would admit to a positive change in perception after completing an induction program.

In the interviews, participants were able to open up and candidly share their feelings. Since they had already completed a program, there was little risk or implication related to sharing their perspectives, which allowed the participants to speak freely. One candidate shared that the experience of induction was different than her original perception, it was more personalized than expected, and she was able to analyze and grow in practice (Participant 1, Interview 1). Another participant shared that he originally expected not to learn anything, but his perception changed due to having a positive relationship with his mentor and applicable activities for teaching and learning (Participant 7, Interview 1). This study adds to the existing body of induction research by offering and analyzing evidence obtained through investigating the attitudes, feelings, and beliefs around California induction policy requirements; the overall attitudes of induction; and the role confidence plays in induction and retention. Understanding these attitudes is helpful to the education field since California has induction requirements for licensure and the attitudes around this requirement could potentially affect the teaching pool.

Discussion of the Results in Relation to the Literature

The purpose of this discussion is to contextualize this study in relation to previously published research. There were many connections made between the existing body of literature that was reviewed in Chapter 2, new published findings in the past two years, and the data from this qualitative case study. This discussion of the results in relation to literature is presented to clarify the relevance of this study as a contributing body of work to induction research.

Induction research at a global level. In the past couple of years, more novice researchers are starting to look at beginning teachers' attitudes towards induction. However,

most of this research is still at the dissertation level and not being disseminated into peer review journals. In Chapter 2, there was discussion of why induction is becoming policy worldwide. Darling-Hammond (2017) found through her worldwide studies that teaching effectiveness is at the top of policy agendas on a global level. The trend in newly published articles is looking at induction from a global perspective. It is clear "the issue about the teaching induction process represents a crucial aspect of the contemporary learning world, and it is interviewed with the development of innovation in learning" (Loperfido, Dipace, Caposeno, Scarinci, and Viteli, 2018, p. 74). Numerous articles have been published since 2018, discussing how induction is being implemented in countries globally. For example, induction programs are becoming widespread in Europe.

> In Ireland, following a number of years as a pilot project since 2002, teacher induction was made mandatory for all teachers in 2010. A new induction programme known as Droichead was subsequently trialed on a pilot basis between 2013 and 2016, leading to the launch in 2017 of a new Integrated Professional Induction Framework. (De Paor, 2019, p. 122)

In 2018, Loperfido et al. released results from data collected that compared induction in Finland and Italy. Their data suggested,

> that the role of teachers is differently perceived in the two countries, since, in Finland, the teacher is a decision maker too who organizes activities and digital tools, by taking in account the motivational dimension of her job. In Italy, it seems that the teacher's job implies a concern about the appropriate ways to innovate the learning activities and the evaluation practices. (Loperfido et al., 2018, p. 75)

The comparison of induction programs is becoming widespread research in the education field.

In addition to comparing program design and effective elements in induction, induction-policy reports are starting to rise in educational journals. Like many countries in Europe and North America, Chile has implemented a new law for an induction system for professional development (Flores, 2019).

> It is expected that some structures of induction such as mentoring will be in place soon. The law establishes mentoring as a right for all teachers who enter the professional practice in a subsidized school. The induction process must begin within the school year in which the beginning teacher begins to work, it will last for 10 months and will require an exclusive weekly dedication of a minimum of four and a maximum of 6 hours. During this period, the beginning teacher will be accompanied and supported by a teacher "mentor." (Flores, 2019, p. 2)

The fact that numerous countries are putting induction into law or making induction part of credential requirements shows the global importance the education field puts on induction. Thus far, the research priority has been on the benefits of induction policy, rather than the teachers' attitudes and feelings regarding these policies. Even more specifically, there is a lack of research on the attitudes and beliefs of teachers who have completed an induction program, as required by the state of California, to obtain their clear teaching credential license. This study was created to fill this gap.

Advantages of induction. Many advantages to induction were referenced in the literature review, including coaching and observations (Ingersoll & Strong, 2011; Womack-Wynne et al., 2011; Kearney, 2014; Gardiner, 2017), assimilation to teaching (Nasser-Abu Alhija & Fresko, 2016; Duggan et al., 2017), reduction in bias (Russell, 2015), and increased skill level (Helms-Lorenz et al., 2015; He et al., 2015; Shanks, 2017; Darling-Hammond, 2017), and lower attrition

rates (Gaikhorst et al., 2014; Helms-Lorenz et al., 2015; He et al., 2015; LoCascio et al., 2016). The first advantage of induction, coaching, and observations has been widely studied (Ingersoll & Strong, 2011; Womack-Wynne et al., 2011; Kearney, 2014; Gardiner, 2017). Kearney (2016) identified many effective elements of induction including "the opportunity for collaboration and structured observations" (p. 8). This opinion was echoed by many of the participants in this study. The participants discussed the importance of coaching through reflecting on ILP goals with a mentor, talking each week, and receiving feedback on their teaching video observations. Through collaboration and observations, the participants were able to receive the coaching they needed to develop into a more skilled teacher. In addition to their own observations, almost all the participants mentioned that the required element of observing other teachers once each semester was also beneficial to their teaching and classroom management skills. In fact, a few of the participants admitted that they found it encouraging to see more experienced teachers struggling with the same issues they were facing in their own classrooms. Hence showing them that many issues in the classroom are universal and not unique to new teachers.

A second advantage of induction that was previously discussed in the literature review and aligned with the findings of this study, was that of assimilation into teaching (Duggan et al., 2017; Nasser-Abu Alhija & Fresko, 2016). A study by Gordon (2016) was similarly structured to this case study. The data was collected through semi-structured interviews with document collection and then the data analysis was conducted through open coding and constant comparison methods. Gordon (2016) recounted, "One implication from this study points to the practice of creating induction and mentoring programs that are focused on teacher assimilation within a specialized field" (p. 15). In the university-based online induction program that the participants completed, they were matched up with a mentor with the same credential and had

similar teaching experiences. One participant shared that observing and collaborating with other teachers helped her gain confidence because she saw "similar management issues and felt stronger implementing the same strategies and also became equipped with new strategies" (Participant 8, Interview 2). The reinforcement teachers receive from a similar colleague helps with assimilation into teaching. Another participant reported that induction gave her confidence to reach out to her colleagues to get help. This is an important part of the assimilation process because "People needed to feel good about themselves as a professional" (Participant 9, Interview 2).

The third induction advantage that was listed in the literature review was reduction in bias (Russell, 2015). However, there was little literature on this topic regarding induction. Bias was not a topic that was addressed in the data for this study. The lack of literature addressing bias through induction practices and policies exposes a potential area for future research. Reduction of bias will be discussed further in the section on future research.

The fourth induction advantage that was presented in research is increased skill levels and increased confidence (Helms-Lorenz et al., 2015; He et al., 2015; Shanks, 2017; Darling-Hammond, 2017). If induction helps keep high-quality teachers in the profession, then the goal of induction should be to develop high-quality teaching skills (Gujarati, 2012). When teachers have low skill levels, they struggle in all aspects of teaching. One participant shared that her first year of teaching was discouraging. She felt sad, had low confidence, and thought she went into the wrong career field. After completing induction, she now feels more confident, happier with her decision to teach, and glad she stuck it out because now she is happier with her career choice (Participant 10, Interviews 1 and 2).

The fifth, and final, induction advantage that was presented in research is decreased attrition rates (Gaikhorst et al., 2014; Helms-Lorenz et al., 2015; He et al., 2015; LoCascio et al., 2016). Since skill level is important for retention (Helms-Lorenz et al., 2015), I thought it was important that questions about the teacher's attitudes of their skill level be included in the interviews. Participants discussed a variety of skills such as lesson planning, classroom management, and organizational strategies. "Induction can be beneficial in that it can produce a lot of growth and really refine skills as a teacher" (Participant 4, Interview 2). This reinforces the research that shows providing support to new teachers through induction may assist with improving teaching skills, which in turn could help the teaching shortage (Darling-Hammond, 2017; Helms-Lorenz et al., 2015). Since all of the participants in this study hope to remain in the education field, the evidence in the data points to the support that these teachers received did in fact, improve their skill levels, teaching strategies, and retention rates.

Disadvantages of induction. The disadvantages of induction that were previously cited included fiscal impacts (LoCascio et al., 2016; Muller et al., 2014;), inconsistency in mentoring models (Israel et al., 2014; LaVine, 2016; Shanks, 2017), and evaluative forms of mentoring (Atkinson, 2012, Hanawalt, 2018; Devos, 2010). The findings of LoCascio et al. (2016), who reported on the financial burden induction causes on education systems, were supported through the research of this case study. California induction programs are designed to be individualized to meet each teacher's needs. One of the preconditions for induction is that each teacher meets with a mentor for approximately an hour per week. Within this model, induction is costly and has a fiscal impact on schools and teachers in California.

The first induction disadvantage that has been studied are the fiscal impacts. According to LoCascio et al. (2016) induction programs are expensive and need to be tailored to teachers'

needs. One-on-one instruction is especially expensive from a university perspective. University budgets are typically built around larger class sizes with one paid instructor. At a university, the cost of individualized support is passed on to the students. In the university-based-induction program these participants completed, the cost is $1800 per semester. Each of these participants was approved for ECO so they paid a total of $3600 to complete their program. For other induction candidates who do not qualify for the ECO 1-year option, their total cost is $7200. While some districts pay the costs of induction for their teachers; most no longer do. Many of the teachers, in this study, had to pay for induction out-of-pocket, but a few of them were reimbursed as a retention bonus for staying with the school after completing induction. As mentioned in Chapter 2, there is motivation for districts to retain teachers because when high numbers of teachers leave education, it costs the U.S. billions of dollars (Muller et al., 2014). Many participants cited the cost of induction as a deterrent to starting the program earlier and a cause for negative feelings towards the induction process. Specifically, one participant shared that while there is a benefit to induction the expense of induction often outweighs the benefit and sometimes paying for a program creates a bad attitude in the teacher (Participant 3, Interview 1). As such, many of the teachers in this study did not start induction, as recommended, in year one, even though most agreed that year one or two of teaching would be the best time to receive induction support.

The second induction disadvantage relates to the widely cited inconsistencies in induction mentoring models (Israel et al., 2014; LaVine, 2016; Shanks, 2017). This is a concerning disadvantage because not all teachers are receiving the same degree of support and developing common skills. Five of the 11 participants in the study qualified for ECO in the online-university-based program because they had already completed a year of induction in a different

program. All five of these candidates reported vastly different mentoring models in their other programs and found the university model to be more effective. According to all the participants, the mentor is the most important factor in an effective induction program. Since the California induction model requires one-on-one mentoring, the candidates can have a growth disadvantage if the mentor is not effective. One of the goals of induction is to create a platform for educational change for new teachers. Participants who completed a different induction program, often came into the university-based online program with specific needs and desires for learning and change. One participant shared her hope for the second program, "I wanted it to have someone point out where I need to improve or how to improve, especially how to improve my teaching and how to engage and motivate students" (Participant 9, Interview 1). Another explained her expectations in detail,

> In the second program, I wanted connection with a mentor, real-time support, and feedback. Mentors should build up new teachers with positive reinforcement, don't just focus on the things that are going wrong or need to be changed. As a new teacher, I needed quick feedback for immediate issues, help with lesson plans, and time management strategies. I also wanted my mentor to guide me through self-reflection, collecting data, and analyzing data. I was hoping for someone who could guide me through the process of questioning and self-discovery (Participant 10, Interview 2).

While induction is identified as having three main purposes, "professional, personal, and organizational socialization" (Kearney, 2015, p. 9) the data indicated that these purposes are most effective with a consistent mentoring model.

The final disadvantage to induction that has been cited is teacher evaluation being linked to induction. Early studies by Devos (2010) and Atkinson (2012) raised the concern about

induction being evaluative rather than just support. While all the participants in this study noted that their programs were not evaluative, a study as recent as 2018 (Hanawalt) confirmed there is still a link between some induction programs and teacher evaluation. One participant in this study described the university-based online induction program as supportive and evaluative because one must complete induction to transition to a clear credential (Participant 6, Interview 2). However, when evaluation was posed as a process to continue employment, the participant no longer thought that her induction program was evaluative.

Induction and attrition. The high attrition rate in education is a global issue that is vastly researched (Hagaman & Casey, 2018; Ingersoll, 2003; Ingersoll, 2012; Jones et al., 2013; Kang & Berliner, 2012; Kearney, 2014; Smith and Ingersoll, 2004). While all the participants in this study plan to remain in education, some mentioned things that could take them out of classroom teaching, including family obligations, support positions, and administrative aspirations. In the interviews, the participants were asked if induction influenced their decisions to stay in teaching because there is still a lack of literature about how the attitudes and beliefs of new teachers affect teaching and retention. One recent qualitative study that was conducted in Turkey with open-ended questions, started to scratch the surface of the issue of how induction affects teaching. Çobanoglu and Ayvaz-Tuncel (2018) found that teacher induction programs "contributed to the novice teachers in terms of teaching practices" (p. 107). Nonetheless, the topic of the effects of induction on teaching was not the primary goal of the research, and, as a result, the data was merely skimmed over in that study's analysis. Therefore, this reinforces the need for more data collection on the effect induction has on teaching. Regarding retention, there was evidence of identified literature on induction and retention rates in Chapter 2, but I was

unable to locate new research citing induction participants' attitudes regarding their induction experiences and their own retention.

To summarize, the global movement to increase teaching effectiveness has brought multiple perspectives to induction research and the process of induction itself. Researchers have compared induction policies and processes across the globe, resulting in a plethora of articles on the benefits of induction including collaboration with more experienced teachers, a key element discussed in the induction literature used synonyms such as *mentoring, orientation,* and *socialization*. In this study, working with a mentor helped the participants gain confidence, further develop their teaching skills, and assimilate into the profession. Another underlying goal of induction discussed in the global literature, was the retention of trained teachers. Evidence in this study indicates the support they received impacted their plans to continue as educators. On the other hand, current literature and the findings of this study indicated issues related to fiscal costs, inconsistencies in mentoring models, and the fact that some induction programs link induction to teacher evaluation rather than an exclusive focus on support, which can be barriers to teachers entering induction and receiving the intended support.

Limitations

This study was conducted from October-December 2019 accessing the first graduating class of an online induction program, who had completed induction in May or December in 2019. The limitations, or potential weaknesses of the study (Creswell, 2012), included interviewing a specific group of people who all completed the same program, a limited sample size based on willingness of participants, and timing which only allowed Early Completion Option (ECO) candidates to participate. Therefore, the results of this study are not generalizable. There was an issue with recruiting enough participants for the study, therefore, I had to reach out

to IRB and modify the timeline and scope for recruiting participants to include the most recent December 2019 induction graduates.

Implications of the Results for Practice, Policy, and Theory

The value California induction has to new teachers to develop teaching and retention was confirmed through existing research and the data in this study. Yet, the attitudes and beliefs of new teachers, regarding California induction policy requirements were proven to be mixed in the literature. The research literature revealed a gap in researching new teachers' attitudes and beliefs toward induction, (LaVine, 2016; LoCascio et al., 2016) showing a need to hear the voices of new teachers regarding induction rather than focus on programming concerns. This qualitative case study took the opportunity to hear the voices of teachers and listen to their beliefs, feelings, and attitudes toward the California requirements.

Implications of the results for practice. There were some suggestions for future practice that some of the participants recommended. One pointed out the benefit of attending a time management workshop (Participant 10, Interview A). Especially, she wanted advice on how to avoid burnout, receive tips by experienced teachers on how to efficiently get out of the classroom at the end of the day, and understand how to take breaks throughout the workday. Another person suggested that new teachers need resources, articles, and videos recommended to them for professional development (Participant 3, Interview 3). When induction candidates are completing action research, they need specific guidance on accessing resources. In the university-based online induction program that these participants were in, there was a resource library; however, the resources need to be bolstered and the topics need to be clear. A third participant recommended adding an online forum or discussion group with fellow teachers, which could sometimes include

their mentor organizing it, so new teachers could learn from each other (Participant 9, Interview A).

Implications of the results for policy. While participants tended to understand or agree with the motivation behind induction policy, the two most common complaints related to the policy were the time induction requires and the cost. Participant 1 admitted that when listening to her colleagues, many said induction was time consuming, but most people complained about the cost (Interview 1). This same participant admitted that her school reimburses for induction, but the teacher must pay up front and then get reimbursed over a 5-year period as a retention tool. Thus, when teachers must pay for induction themselves, many reported in the interviews that the cost is a deterrent for starting induction early in their career. Since participants often made a connection between making a personal investment in their own training to remaining in the profession, a future area of research could include exploring how many teachers feel trapped because they have educated themselves to be teachers and now they feel like they have no choice because of the time and money they have spent to become teachers. While the dedication to teaching was addressed by participants in this study, exploring their feelings towards that dedication was not explored and could be an interesting report to inform future policy.

Implications of the results for theory. This study added a new perspective on teachers' perception toward induction and the effect induction has on teaching and retention. Most of the participating teachers reported attitudinal changes to positive attitudes, while a few reported no changes to their attitudes and feelings of negative attitudes. However, the data validated that teaching strategies learned in induction were still being used by the participants, confirming that induction does have a positive effect on teaching. In addition, all teachers in this study, admitted their confidence levels improved. While past research showed that induction positively impacts

teacher retention and quality (Allen, 2013; Ingersoll, 2012; Kang & Berliner, 2012; Kearney, 2014), most teachers in this study did not think there was a link between their induction program and their retention in the field of education. Rather, a greater importance was put on the commitment teachers have to education if they complete all the requirements the state has to become a fully licensed teacher. Therefore, further study needs to be conducted regarding the relationship between self-efficacy (Bandura, 1977) and any implications it may have on Postinduction teaching performance and retention.

Recommendations for Further Research

New teachers participating in induction programs is seen by policymakers as a solution to curb the worldwide teacher shortage issue (Darling-Hammond, 2010). As of 2016, 24 U.S. states were requiring new teachers to complete or participate in an induction program to receive additional mentoring and support (Goldrick, 2016, p. v). California is not only one of the states that require induction, but it also ties the requirement to a two-tiered credential process (CTC, 2018, para. 1). However, the attitudes and beliefs of participants in this study, regarding California induction policy requirements, pointed to mixed reviews on induction. Only one of the participants came into induction with a positive attitude, two were indifferent, and eight admitted to negative feeling when starting induction. In contrast, after completing the program nine of the participants reported a positive attitude, one was still indifferent, and one continued to have a negative attitude toward induction.

In California, there was a clear shift in induction from the old Beginning Teacher Support and Assessment (BTSA) program to the new induction standards (CTC, 2020). However, there has not been a shift in the negative message that teachers are relaying about their attitudes of induction to new teachers. Attitudes of many of the participants conveyed induction being a

means to an end, that is clearing their credential, as opposed to a means to becoming a better teacher and to staying in the profession. Thus, many of the participants in this study, were pleasantly surprised when they found meaning and value in their induction experience. Future research could explore the differences between programs from the perspective of candidates who completed the old BTSA programs and the new induction programs to see if there was a shift in attitude on a larger level, as this study points to. If so, what are the factors that caused that shift?

While this study revealed the need for more research in attitudes and beliefs and their possible shifts, there also exists a more focused need for literature and research on effective practices and policies within induction programs for addressing bias in classrooms and across school campuses. There was limited literature available regarding the role induction plays in the reduction in bias for teachers or in the classroom. Bias was not a topic that was addressed in the interviews for this study. Relevant research could include investigating how induction programs include specific support in strategies to support all learners including EL, low achievers, GATE, and special needs and whether these strategies help eliminate bias. Teachers could explore if they have biases of student populations that may limit theses students' potential or change the expectations in the classroom.

Another beneficial study could look at retention from a broader perspective. While this study looked at retention from a short-term perspective, looking at retention rates after the 5-year teaching marker would provide a different perspective. A future study could revisit teachers, who completed induction, 5 years later to analyze the retention rates of these teachers. Important questions could include: How did induction help with teaching and retention? Did induction affect your decision to stay in teaching? Did induction improve your confidence, and as such sway your decision to stay in teaching? Why did you choose to leave the teaching profession?

Did your induction experience affect your decision to leave teaching? Collecting interview data from a larger sample, size who has had longer teaching experiences, may give a more accurate look at how induction affects retention.

Finally, while the data supported that induction affects teaching, most of the participants did not think retention was tied to induction. A few believed that if teachers have a positive experience in induction, they would be more likely to stay in education, but more of the participants attributed retention to the commitment and time put into obtaining their credential. Therefore, future research could study induction candidate timelines to reveal the time teachers feel they need to commit to preparing to be a teacher in order to feel invested in the profession.

Conclusion

New teachers can see induction as either an inconvenience or an opportunity to grow. For many beginning teachers in California who do not work in a district that pays for this essential step of credentialing, induction was often viewed as an expensive inconvenience. Over and above the financial cost of induction, eight of the participants viewed induction as an inconvenience because of the amount of time it required. For many new teachers, time was often a commodity as precious as money. There was only one participant who admitted entering induction with a positive attitude, confident that she would leave this experience richer in teaching strategies, knowledge, and confidence. Her ability to face requirements, as opportunity rather than adversity, afforded her a growth mindset that helped her to develop teaching skills that carried past induction.

This study was designed to answer the question of how the attitudes and beliefs of new teachers regarding California induction policy requirements affect teaching and retention after participating in a university-based online induction program. The data regarding the participant's

attitudes and beliefs towards California induction policy requirements revealed a shift showing that most of the participants initially had negative attitudes but exited the program with a more positive attitude toward induction. It was evidenced that new teachers' beliefs and attitudes towards induction were highly influenced by the experiences and biases other teachers shared with them. Most participants acknowledged that their own induction experiences did not align with the expectations they had based on the negative feedback from their peers. As far as the effect induction had on teaching, all participants in this study shared that many of the strategies they learned from their mentors in induction were repeated in Postinduction teaching; therefore, the evidence indicated the important connection of learning strategies with mentoring support. Furthermore, most participants agreed induction positively affected their confidence, which carried into their teaching after the program. While participants agreed that due to higher confidence levels, they are more apt to stay in the profession, the participants did not directly attribute their retention to induction. Rather, more compelling factors of retention were their hard work in acquiring credentials and their commitment to the field of education.

From this research, we can see that the attitudes and beliefs of induction participants in California do affect teaching and retention. Although it may seem black and white that positive attitudes affect learning in a positive way and negative attitudes affect learning in a negative way, the data showed that attitudes can change based on teachers' induction experiences. The solutions may not be so clear. Induction has positive effects on teaching and retention rates, and this is something that can be controlled through policy and requirements. However, the policy and requirements sometimes have negative effects on new teachers, and their attitudes and beliefs are personal feelings and cannot be controlled by policymakers. The world needs effective teachers who are committed to staying in the profession as a long-term career goal. The

lesson we need to learn is that while policy may be in the best interest of teachers and learning, the emotional aspect of people and their feelings must be considered too. In education teachers are challenged to consider the whole child as an individual with diverse needs when teaching, similarly policymakers need to consider the whole teacher when developing requirements.

References

Allen, L. V. Z. (2013). The impact of induction support on teacher development, teacher retention, and the teacher quality issue. *Teacher Education Quarterly*, *40*(3), 75–83.

Atkinson, B. M. (2012). Strategic compliance: Silence, "faking it," and confession in teacher reflection. *Journal of Curriculum Theorizing* [Online], *28*(1), 74–88.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. doi:10.1037//0033-295x.84.2.191

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117–148.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1–26.

Bandura, A. (2006). Adolescent development from an agentic perspective. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 1–43). Greenwich, CT: Information Age Publishing.

Bandura, A., Davidson, H. F., & Davidson, J. M. (2003). *Bandura's social cognitive theory: An introduction*. San Luis Obispo, CA: Davidson Films.

Bergeson, M. (2003–2004). *AB-2210 Marian Bergeson beginning teacher support and assessment system.* California Legislative Information. Retrieved from http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200320040AB2210

Birks, M., & Mills, J. (2013). *Grounded theory: A practical guide*. Thousand Oaks, CA: SAGE.

Burke, P. F., Aubusson, P., Schuck, S., Buchanan, J., & Prescott, A. (2015). How do early career teachers value different types of support? A scale-adjusted latent class choice model. Teaching and *Teacher Education, 47*(C), 241–253.

Callahan, J. (2016). Encouraging retention of new teachers through mentoring strategies. *Delta Kappa Gamma Bulletin, 83*(1), 6–11.

Caspersen, J., & Raaen, F. D. (2014). Novice teachers and how they cope. *Teachers and Teaching, 20*(2), 189–211. doi: 10.1080/13540602.2013.848570

Charner-Laird, M., Szczesiul, S., Kirkpatrick, C. L., Gordon, P., & Watson, D. (2016). From collegial support to critical dialogue: Including new teachers' voices in collaborative work. *The Professional Educator, 40*(2), 1–17.

Çobanoglu, F., & Ayvaz-Tuncel, Z. (2018). Teacher induction program: First experience in Turkey. *International Education Studies, 11*(6), 99–108. doi: 10.5539/ies.v11n6p99

Corbin, J., & Strauss, A. L., (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: SAGE Publications. doi: 10.4135/9781452230153

Crosswell, L., & Beutel, D. (2013). A bridge over troubling waters: A snapshot of teacher graduates' perceptions of their ongoing professional learning needs. *Asia-Pacific Journal of Teacher Education, 41*(2), 144–158. doi: 10.1080/1359866x.2013.777022

CTC. (2010, September). Professional services committee: Update on BTSA induction. [Pdf]. Commission on Teacher Credentialing. Retrieved from https://www.ctc.ca.gov/docs/default-source/commission/agendas/2010-09/2010-09-2g-pdf.pdf

CTC (2012). Continuum of teaching practice [PDF file]. *Commission on Teacher Credentialing.* Retrieved from https://www.ctc.ca.gov/docs/default-source/educator-prep/ca-ti/final-continuum-of-teaching-practice.pdf?sfvrsn=9b400217_0

CTC. (2016). Teacher induction program preconditions and program standards. *Commission on Teacher Credentialing*. Retrieved from https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/teacher-induction-precon-standards-pdf.pdf?sfvrsn=59e14eb1_2

CTC. (2017, March 15). How to become a teacher in California. *Commission on Teacher Credentialing*. Retrieved from https://www.ctc.ca.gov/credentials/teach

CTC. (2018, February 22-a). Division of Title 5 of the California Code of Regulations [Pdf]. *Commission on Teacher Credentialing*. Retrieved from https://www.ctc.ca.gov/docs/default-source/commission/rulemaking/2018-02-22-induction/2018-02-22-induction-isor.pdf?sfvrsn=4

CTC. (2018, December 14-b). California teacher induction. *Commission on Teacher Credentialing*. Retrieved from https://www.ctc.ca.gov/educator-prep/ca-teacher-induction

CTC. (2019, January 7). Teaching credentials requirements. *Commission on Teacher Credentialing*. Retrieved from https://www.ctc.ca.gov/credentials/req-teaching

Creswell, J.W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future.* New York, NY: Teachers College Press.

Darling-Hammond, L. (2012). *Creating a comprehensive system for evaluating and supporting effective teaching.* Stanford, CA: Stanford Center for Opportunity Policy in Education.

Darling-Hammond, L. (2017) Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education, 40*(3), 291–309. doi: 10.1080/02619768.2017.1315399

Darling-Hammond, L., Furger, R., Shields, P., & Sutcher, L. (2016). *Addressing California's emerging teacher shortage: An analysis of sources and solutions*. Palo Alto, CA: Learning Policy Institute.

Darling-Hammond, L., Sutcher, L., & Carver-Thomas, D. (2018). *Learning policy institute: Teacher shortages in California: Status, sources, and potential solutions.* Palo Alto, CA: Learning Policy Institute. Retrieved from https://www.gettingdowntofacts.com/sites/default/files/2018-09/GDTFII_Report_Darling-Hammond.pdf

DeAngelis, K. J., Wall, A. F., & Che, J. (2013). The impact of preservice preparation and early career support on novice teachers' career intentions and decisions. *Journal of Teacher Education, 64*(4), 338–355.

Delp, S. C. (2014). The high school principal's influence on novice teacher induction within a distributed leadership framework. *Journal of School Public Relations, 35*(2), 176–206.

De Paor, C. (2019). Lesson observation, professional conversation and teacher induction. *Irish Educational Studies*, *38*(1), 121–134. doi: 10.1080/03323315.2018.1521733

Devos, A. (2010). New teachers, mentoring and the discursive formation of professional identity. *Teaching and Teacher Education, 26*(5), 1219–1223. doi:10.1016/j.tate.2010.03.001

Duggan, M., Carlson, D., Jordan, M., Gaias, L., Abry, T., & Granger, K. (2017). “Dear Diary”: A qualitative examination of the phases of first-year teaching. *Teacher Education and Practice, 30*(1), 19–20.

Feldhaus, C. A. (2013). Exploring different nations’ approach to teacher education. *New Waves, 16*(2), 87–90.

Flick, U., Metzler, K., & Scott, W. (2014). *The SAGE handbook of qualitative data analysis*. Los Angeles; London [England]: SAGE.

Flores, C. (2019). Beginning teacher induction in Chile: Change over time. *International Journal of Educational Research, 97*, 1–12. doi: 10.1016/j.ijer.2019.06.001

Gaikhorst, L., Beishuizen, J. J., Korstjens, I. M., & Volman, M. L. L. (2014). Induction of beginning teachers in urban environments: An exploration of the support structure and culture for beginning teachers at primary schools needed to improve retention of primary school teachers. *Teaching and Teacher Education, 42*, 23–33.

García, E., & Weiss, L. (March, 2019). The teacher shortage is real, large and growing, and worse than we thought: The first report in “The Perfect Storm in the Teacher Labor Market” series. *Economic Policy Institute*. Retrieved from https://www.epi.org/files/pdf/163651.pdf

Gardiner, W. (2017). Mentoring “inside” and “outside” the action of teaching: A professional framework for mentoring. *The New Educator, 13*(1), 53–71.

George, S., Richardson, P., & Watt, H. (2018). Early career teachers’ self-efficacy: A longitudinal study from Australia. *Australian Journal of Education, 62*(2), 217–233.

Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social Problems, 12*(4), 436–445. doi: 10.2307/798843

Glaser, B. G. (1978). *Theoretical sensitivity: Advances in the methodology of grounded theory*. Mill Valley, CA: Sociology Press.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New Brunswick [NJ.]; London [England.]: Aldine Transaction.

Goldrick, L. (2016). Support from the start: A 50-state review of policies on new educator induction and mentoring. *New Teacher Center Policy Report.* Retrieved from https://newteachercenter.org/wp-content/uploads/2016CompleteReportStatePolicies.pdf

Goldrick, L., Osta, D., Barlin, D., & Burn, J. (2012). Policy paper: Review of state policies on teacher induction. *New Teacher Center*. Retrieved from https://newteachercenter.org/wp-content/uploads/brf-ntc-policy-state-teacher-induction.pdf.

Gordon, E. J. (2016). Concerns of the novice physical education teacher. *The Physical Educator, 73*(4), 652–670.

Gujarati, J. (2012). A comprehensive induction system: A key to the retention of highly qualified teachers. *The Educational Forum, 76*(2), 218–223.

Ha, Y. L. (2014). Who's the teacher? Who's the learner? Professional growth and development of a novice teacher in Hong Kong. *Childhood Education, 90*(1), 43–53.

Hagaman, J. L., & Casey, K. J. (2018). Teacher attrition in special education: Perspectives from the field. *Teacher Education and Special Education, 41*(4), 277–291. doi: 10.1177/0888406417725797.

Hanawalt, C. (2018). School art in an era of accountability and compliance: New art teachers and the complex relations of public schools. *Studies in Art Education, 59*(2), 90–105. doi:10.1080/00393541.2018.1440151.

Harding, J. (2019). *Qualitative data analysis: From start to finish* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. New York, NY: State University of New York Press.

He, Y., Cooper, J. E., & Tangredi, C. (2015). Why do I stay? A case study of a secondary English teacher in an urban high school. *Teacher Education Quarterly, 42*(1), 49–66.

Helms-Lorenz, M., Slof, B., & Van de Grift, W. (2013). First year effects of induction arrangements on beginning teachers' psychological processes. *European Journal of Psychology of Education, 28*(4), 1265–1287. doi: 10.1007/s10212-012-0165-y

Helms-Lorenz, M., Van de Grift, W., & Maulana, R. (2015). Longitudinal effects of induction on teaching skills and attrition rates of beginning teachers. *School Effectiveness and School Improvement, 27*(2), 178–204. doi:10.1080/09243453.2015.1035731

Ingersoll, R. M. (2003). *Is there really a teacher shortage?* Philadelphia, PA: University of Pennsylvania, Consortium for Policy Research in Education.

Ingersoll, R. M. (2012). Beginning teacher induction: What the data tell us. *Phi Delta Kappan, 93*(8), 47–51. doi: 10.1177/003172171209300811

Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research, 81*(2), 201–233. doi: 10.3102/0034654311403323

Israel, M., Kamman, M. L., McCray, E. D., & Sindelar, P. T. (2014). Mentoring in action: the interplay among professional assistance, emotional support, and evaluation. *Exceptional Children, 81*(1), 45–63.

Jones, N. D., Youngs, P., & Frank, K. A. (2013). The role of school-based colleagues in shaping the commitment of novice special and general education teachers. *Exceptional Children, 79*(3), 365–383.

Kanadlı, S. (2017). Prospective teachers' professional self-efficacy beliefs in terms of their perceived autonomy support and attitudes towards the teaching profession: A mixed methods study. *Kuram Ve Uygulamada Egitim Bilimleri, 17*(5), 1847–1871.

Kang, S., & Berliner, D. (2012). Characteristics of teacher induction programs and turnover rates of beginning teachers. *The Teacher Educator, 47*(4), 268–282.

Kearney, S. (2014). Understanding beginning teacher induction: A contextualized examination of best practice. *Cogent Education, 1*(1).

Kearney, S. (2015). Reconceptualizing beginning teacher induction as organizational socialization: A situated learning model. *Cogent Education, 2*(1).

Kearney, S. (2016). What happens when induction goes wrong: Case studies from the field. *Cogent Education, 3*(1), 1–10. doi: 10.1080/2331186X.2016.1160525

Kessler, E. H. (2013). *Encyclopedia of management theory.* Thousand Oaks, CA: SAGE Publications.

Kidd, L. (2015). Beginning teachers' perception of their induction into the teaching profession. *The Australian Journal of Teacher Education, 40*(3), 154–173.

Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice, 24*(1), 120–124. doi:10.1080/13814788.2017.1375092.

Korthagen, F. (2017) Inconvenient truths about teacher learning: towards professional development 3.0, *Teachers and Teaching*, *23*(4), 387–405, doi: 10.1080/13540602.2016.1211523.

Kozikoğlu, İ. (2018). A metaphorical analysis of novice teachers' perceptions concerning first year in teaching, induction process, school administrators and mentor teacher. *Educational Research Quarterly, 42*(1), 3–44.

LaVine, M. E. (2016). Mentoring and Professional Development Opportunities as Perceived by Novice Physical Education Teachers in the Induction Year. *Teacher Education and Practice, 29*(2), 293–312.

Lawson, H. A. (1992). Beyond the new conception of teacher induction. *Journal of Teacher Education*, *43*(3), 163–172. doi: 10.1177/0022487192043003002.

Lindqvist, P., Nordänger, U. K., & Carlsson, R. (2014). Teacher attrition the first five years: A multifaceted image. *Teaching and Teacher Education*, *40*(4), 94–103.

LoCascio, S., Smeaton, P., & Waters, F. (2016). How Induction Programs Affect the Decision of Alternate Route Urban Teachers to Remain Teaching. *Education and Urban Society, 48*(2), 103.

Loperfido, F. F., Dipace, A., Caposeno, K., Scarinci, A., & Viteli, J. (2018). Teachers induction and digital culture. The case of southern Italy teachers attending TFA. *Je-LKS: Journal of e-Learning and Knowledge Society*, *14*(2), 67–78. doi: 10.20368/1971-8829/1494

Lovo, P., Cavazos, L., & Simmons, D. (2006). From BTSA to induction: the changing role of school districts in teacher credentialing. *Issues in Teacher Education, 15*(1), 53–68.

Lozinak, K. (2016). Mentor matching does matter. *Delta Kappa Gamma Bulletin, 83*(1), 12–24.

Lucas, C. A. (1999). Developing competent practitioners. *Educational Leadership*, *56*(8), 45–48.

Marshall, K. J., Karvonen, M., Yell, M. L., Lowrey, A., Drascow, E., & Seaman, M. A. (2013). Project ReSpecT: Toward an evidence-based mentoring model for induction teachers. *Journal of Disability Policy Studies, 24*(3), 127–136.

Martinez, K. (1994). Teacher induction revisited. *Australian Journal of Education*, *38*(2), 174–188.

McLeskey, J., & Billingsley, B. S. (2008). How does the quality and stability of the teaching force influence the research-to-practice gap? *Remedial and Special Education*, *29*(5), 293–305.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.

Miller, A. D., Ramirez, E. M., & Murdock, T. B. (2017). The influence of teachers' self-efficacy on perceptions: Perceived teacher competence and respect and student effort and achievement. *Teaching and Teacher Education, 64*, 260–269.

Mitchell, D. E., Howard, B., Meetze-Hall, M., Hendrick, L. S., & Sandlin, R. (2017). The new teacher induction experience: Tension between curricular and programmatic demands and the need for immediate help. *Teacher Education Quarterly, 44*(2), 79–104.

Muller, S. M., Dodd, A., & Fiala, K. A. (2014). Comparing protective factors and resilience among classroom-based teachers and community-based educators. *Education, 134*(4), 548–558.

Nasser-Abu Alhija, F. M., & Fresko, B. (2016). A retrospective appraisal of teacher induction. *Australian Journal of Teacher Education, 41*(2), 1–17.

New Teacher Center (NTC). (2016). *State Policy Review: New Educator Induction / California.* Policy Report. Retrieved from https://newteachercenter.org/wp-content/uploads/SPR-california-2016-v4-2.pdf

NTC. (2019). New teacher center: About New Teacher Center. Retrieved from https://newteachercenter.org/about-ntc/

Paris, L. F. (2013). Reciprocal mentoring: Can it help prevent attrition for beginning teachers? *Australian Journal of Teacher Education, 38*(6). doi.10.14221/ajte.2013v38n6.5

Pogodzinski, B. (2015). Administrative context and novice teacher-mentor interactions. *Journal of Educational Administration, 53*(1), 40–65. doi:10.1108/JEA-06-2013-0073

Price, J. H., & Murnan, J. (2004). Research limitations and the necessity of reporting them. *American Journal of Health Education, 35*(2), 66–67.

Robson, D., & Mtika, P. (2017). Newly qualified teachers' professional learning through practitioner enquiry. *International Journal of Mentoring and Coaching in Education, 6*(3), 242–260. doi: 10.1108/IJMCE-03-2017-0027

Ronfeldt, M., & McQueen, K. (2017). Does new teacher induction really improve retention? *Journal of Teacher Education, 68*(4), 394–410.

Russell, F. A. (2015). Learning to teach English learners: Instructional coaching and developing novice high school teacher capacity. *Teacher Education Quarterly, 42*(1), 27–37.

Schaefer, L., Long, J. S., & Clandinin, D. J. (2012). Questioning the research on early career teacher attrition and retention. *Alberta Journal of Educational Research, 58*(1), 106–121.

Shanks, R. (2017). Mentoring beginning teachers: Professional learning for mentees and mentors. *International Journal of Mentoring and Coaching in Education*. *6*(3), 158–163. doi: 10.1108/IJMCE-06-2017-0045

Skaalvik, E. M., & Skaalvik, S. (2014). Teacher self-efficacy and perceived autonomy: Relations with teacher engagement, job satisfaction, and emotional exhaustion. *Psychological Reports: Employment Psychology & Marketing*, *114*(1), 68–77.

Smith, T. M., & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal, 41*(3), 681–714.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.

Sutcher, L., Darling-Hammond, L., and Carver-Thomas, D. (2016). *Coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* (research brief). Palo Alto, CA: Learning Policy Institute.

Tomas, L., Girgenti, S., & Jackson, C. (2017). Preservice teachers' attitudes toward education for sustainability and its relevance to their learning: Implications for pedagogical practice. *Environmental Education Research, 23*(3), 324–347. doi: 10.1080/13504622.2015.1109065

Van Overschelde, J. P., Saunders, J. M., & Ash, G. E. (2017). Teaching is a lot more than just showing up to class and grading assignments: Preparing middle-level teachers for longevity in the profession. *Middle School Journal*, *48*(5), 28–38.

Villar, A., & Strong, M. (2007). Is mentoring worth the money? A benefit-cost analysis and five-year rate of return of a comprehensive mentoring program for beginning teachers. *ERS Spectrum: Journal of Research and Information*, *25*(3), 1–17.

von der Embse, N. P., Sandilos, L. E., Pendergast, L., & Mankin, A. (2016). Teacher stress, teaching-efficacy, and job satisfaction in response to test-based educational accountability policies. *Learning and Individual Differences, 50,* 308–317.

Williams, N. V., & Gillham, J. C. (2016). New teacher perceptions of induction programs: A study of open-ended commentary. *Mid-Western Educational Researcher, 28*(3), 218–231.

Womack-Wynne, C., Dees, E., Leech, D., LaPlant, J., Brockmeier, L., & Gibson, N. (2011). Teacher's perceptions of the first-year experience and mentoring. *International Journal of Educational Leadership Preparation, 6*(4), 1–11.

Wong, H. K. (2004). Induction programs that keep new teachers teaching and improving. *NASSP Bulletin, 88*(638), 41–58.

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *The Qualitative Report, 20*(2), 134–152.

Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational Research, 86*(4), 981–1015.

Appendix A: Participant Selection Chart

Study participants credential type, grade level taught, and school type during induction.

Participant Number	Credential Type	Induction Grade Level	School Type
#1	Multiple Subject	Kindergarten	Charter
#2	Multiple Subject	First Grade	Charter
#3	Multiple Subject	First Grade	Private
#4	Multiple Subject	Third Grade	Private
#5	Single Subject	HS—Engineering	Private
#6	Multiple Subject	Fifth Grade	Public
#7	Single Subject	HS—History	Private
#8	Multiple Subject	1/2 Grades	Private
#9	Multiple Subject	Online MS—Math	Charter
#10	Multiple Subject	Kindergarten	Charter
#11	Single Subject	HS—Math	Public

Appendix B: Initial Interview Questions

(Approximately 1 hour)

1. Tell me about yourself including your journey into teaching and where you acquired your preliminary credential.
2. What grade level are your currently teaching, and where is your school located (San Diego County, Southern California outside of San Diego County, a state other than California, international)?
3. How did you qualify for the Early Completion Option (ECO)? Tell me about your previous teaching experience.
4. When you applied for the teacher induction program, how would you describe your attitude towards the California induction policy requirements? What made you feel this way?
5. When you applied for the teacher induction program, what did you expect to learn?
6. What requirements or procedures were most useful in the induction program? What was least useful or most challenging?
7. How many semesters did you participate in induction? How many semesters did you participate in a California university induction program? Tell me about how prepared you feel to teach, given the amount of time you were in induction.
8. How did what you were experiencing in induction connect to your classroom teaching?
9. Could you please share your ILPs for review for the case study? How useful was the Individualized Learning Plan (ILP) as a tool to develop skills needed in the growth areas you identified during induction?
10. How were you able to self-assess your growth toward meeting your ILP goals?

11. Now that you have completed the induction program, did you notice a change in your attitude towards the California induction requirements?
12. What do you believe should be added or removed from the induction program to better serve the needs of beginning teachers?
13. Is there anything I have not asked you about the induction process that you would like me to know?

Tell the participants that their time and information to help conduct the case study is greatly appreciated. Once all the necessary information is retrieved from the transcripts and the IRB data and communication have been reported, the records of communication will be deleted.

Appendix C: Follow-Up Interview Questions

(Approximately 1 hour)

Within two weeks of the initial interview, the follow-up interview should occur. The follow-up interview will begin with any questions from the initial interview that were not asked. Next, there will be two standard questions for all participants. Then, based on the analysis of the initial interview, questions to further investigate thematic ideas will be developed for the follow-up interview.

1. Who paid for your induction program?
2. Tell me about your final screencast research in the induction program.
3. Did the induction screencast assignment change the way you teach?
4. How has your teaching changed since completing induction?
5. How has induction changed you?
6. What advice would you give to new teachers who need complete induction?
7. How has your confidence in teaching changed since completing induction?
8. Did the perceptions of induction of other teachers influence your attitude prior to induction?
9. Did your previous teaching experience play a part in your attitude toward induction?
10. Did the observations of other teachers help you with your own teaching?
11. Did observing other teachers affect your confidence?
12. Tell me about your attitude in the program?
13. How have the reflection skills you learned in induction, carried over into your teaching after induction?

14. There seems to be alignment between induction and your school expectations, does your administration require formal reflection and goal setting?
15. Did going through induction affect your attitude towards staying in teaching?
16. Do you see a connection between induction and teacher retention?
17. How did you use data to drive instruction in induction? Do you still do this in your classroom?
18. Did you and your mentor address "Just in Time" issues in your video conference meetings?
19. What are some examples of your "Just in Time" needs"?
20. Did your mentor give you solutions to problems or help you problem solve?
21. How did your mentor help prepare you for teaching after induction?
22. Do you feel confident to problem solve on your own?
23. How did your mentor affect your teaching confidence? Now that you have completed the program are there still people who are encouraging you and raising your confidence levels?
24. On a scale of 1–10, what was your confidence level prior to induction? After induction? Can you explain those numbers to me?
25. Do you think teachers with high (low) confidence put less (more) value in induction?
26. Was there a connection between your induction goals and being accountable to your administration?
27. Is this connection important?
28. Do you think a connection between induction and administration assisted with teaching, post induction?

29. How are your perceptions of induction tied to your mentor experience?
30. How did your attitude regarding California induction policy requirements, affect your teaching after participating in induction?
31. How did your beliefs of California induction policy requirements, affect your decision to stay in teaching after participating in induction?
32. How long do you intend to teach?
33. Do you think induction had a role in your timeline?
34. Does your confidence level play a role in your decision to stay in teaching?
35. What do you think was the most helpful goal you had in your ILPs?
36. What are your overall feelings about the induction requirements and your induction experience?
37. Could you please send me the links you have to your ILPs and screencast? Do I have your consent form?
38. Is there anything else you would like to share with me?

Thank the participants for their time, information, and participation in the case study. Clarify that their participation is important to the study so that their attitudes and beliefs towards induction can be recorded and shared to the education field. Remind them that once all the necessary information is retrieved from the transcripts and the IRB data and communication have been reported, the records of communication will be deleted.

Appendix D: Consent Form

Research Study Title: Induction Attitudes and Beliefs of New Teachers
Principal Investigator: Laura Craig
Research Institution: Concordia University–Portland
Faculty Advisor: Dr. Kara Vander Linden

The purpose of this survey is to learn more about your attitudes and beliefs about the California induction requirements. We expect approximately 15 volunteers. No one will be paid to be in the study. We will begin enrollment on September 1, 2019, and end enrollment on September 30, 2019. To be in the study, you will:

- Participate in an initial interview to describe your induction experiences and attitude towards the requirements (approximately 1 hour).
- Participate in a follow-up interview to describe your induction experiences and attitude towards the requirements and clarify past information (approximately 1 hour).
- Read through your transcript and data analysis to check for accuracy.
- Engage in activities that should take less than 3 hours of your time.

Risks:
There are no risks to participating in this study other than providing your information. However, we will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely locked inside a password protected computer. When we or any of our investigators look at the data, none of the data will have your name or identifying information. We will only use a secret code to analyze the data. We will not identify you in any publication or report. Your information will always be kept private, and then all study documents will be destroyed 3 years after we conclude this study.

Benefits:
Information you provide will help the field of education and policy makers understand the attitudes and beliefs of new teachers regarding the induction requirements in California. You could also indirectly benefit by reflecting on your experiences and becoming more aware of the lessons you have learned through the induction process as well as being able to articulate your stance on this social issue.

Confidentiality:
This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us about any abuse or neglect that makes us seriously concerned for your immediate health and safety.

Right to Withdraw:
Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or to stop the study. You may skip any questions you do not wish to answer. This study is not required, and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions. If at any point you do not want the information that you provided to be a part of the study, please let the researcher know you would like to withdraw your information.

Contact Information:
You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Laura Craig [contact information redacted]. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch (email obranch@cu-portland.edu or call 503-493-6390).

Your Statement of Consent:
I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

Participant Name	**Date**
Participant Signature	**Date**
Investigator Name	**Date**
Investigator Signature	**Date**

Investigator: Laura Craig email: [redacted]
c/o: Professor Dr. Kara Vander Linden
Concordia University–Portland
2811 NE Holman Street
Portland, Oregon 97221

Appendix E: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously- researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does "fraudulent" mean?

"Fraudulent" work is any material submitted for evaluation that is falsely or improperly presented as one's own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate's final work without full and complete documentation.

What is "unauthorized" assistance?

"Unauthorized assistance" refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another's work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work (Continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.

2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association.*

Laura B. Craig

Digital Signature

Laura B. Craig

Name (Typed)

March 15, 2020

Date