An Exploration of Teacher Efficacy for the Literacy Instruction of Struggling Readers

by

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Abstract

Research supports that teachers’ sense of efficacy is related to instructional quality and student achievement. Building on research that self-efficacy for literacy instruction is a related yet distinct construct from teacher sense of efficacy more generally, and theory that purports teacher sense of efficacy is influenced by two related judgments: the requirements of an anticipated teaching task, and an assessment of personal competencies in light of perceived demands of the teaching task, this study examines further the nature of the relationship between teachers’ general sense of efficacy for teaching, their sense of efficacy for literacy instruction, as well as the relationship between these constructs and teacher sense of efficacy for literacy instruction of students with reading difficulties. The study seeks to affirm and extend current knowledge regarding factors related to teacher sense of efficacy in general, for literacy instruction and for literacy instruction of students with reading difficulties.

Keywords: self-efficacy; teacher sense of efficacy; teacher efficacy; literacy instruction; reading difficulties; struggling readers
This study is dedicated to my children, Jayden, Bricen, and Ryse Sture. You are my inspiration in all that I do. Thank you for all of your love, support, patience, and understanding.
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Chapter 1.

Introduction

Teacher sense of efficacy, “the extent to which the teacher believes he or she has the capacity to affect student performance” (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, p. 136), is an extension of the construct of self-efficacy (Bandura, 1977a, 1986, 1997) and focuses on teachers’ future-oriented beliefs about their capabilities to teach subject matter to all students, even those who are unmotivated to engage in learning activities, or struggle to acquire academic concepts (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). Past research has demonstrated that teachers’ sense of efficacy, positively correlates with the quality of the instructional activities they employ (Holzberger, Philipp, & Kunter, 2013) as well as student achievement (Ashton & Webb, 1986). Instructional quality is considered a key factor in student achievement outcomes (Emmer & Strough, 2001), and the quality of literacy instruction students are exposed to is critical to their development of essential literacy skills (Moats, 2009), yet study findings show that the most teachers do not feel adequately equipped to meet the instructional needs of their students with learning challenges (Ade-Ojo, 2012; Naylor, 2002). Understanding factors that influence a teacher’s sense of efficacy is important in light of reports that levels of student achievement in literacy are falling well below acceptable standards in North America, including British Columbia (BC Ministry of Education, 2013; National Center for Educational Statistics, 2007; Perie, Grig & Donahue, 2005; Richards, 2009; Statistics Canada and the Ministry of Advanced Education, 2005).

Reading comprehension is one of the most important skills acquired by children and youth in school (Mastropieri & Scruggs, 1997). Yet, according the National Assessment of Educational Progress (NAEP), in the US only 38% of children in the fourth grade (National Center for Educational Statistics, 2007) and 32% of secondary students (Perie, Grig & Donahue, 2005) are able to read at a level considered proficient. In Canada there is also evidence that students’ literacy skills are cause for concern. For example, the Programme for International
Student Assessment (PISA) revealed that there has been a decline in the literacy scores of Canadian students falling below the 11th percentile (Richards, 2009). Moreover, in 2013, the British Columbia Ministry of Education reported that 55% of grade 4 and 53% of grade 7 students attending British Columbia schools were not fully meeting expectations on the Foundation Skills Assessment measures of reading comprehension. Data from the prose and document literacy scales of the International Adult Literacy and Skills Survey (Statistics Canada and the Ministry of Advanced Education, 2005) show that two out of five British Columbians aged 16 years and over performed below the “desired level” of competence (Level 3). This means that 40% of adults living in British Columbia lack the skills necessary to accurately read a newspaper, fill out a work application form, read a map, or understand a lease. Clearly, literacy instruction in British Columbia schools is falling short of meeting the needs of all learners.

Past research has reported that teacher perceptions of support from colleagues, and access to instructional resources contribute to differences in teacher sense of efficacy for instruction in general (Tschannen-Moran & Woolfolk Hoy, 2007). Research specific to literacy instruction shows that sense of efficacy for literacy instruction differs among elementary and middle school teachers, and that teachers’ perceptions of access to instructional resources were moderately correlated with sense of efficacy for literacy instruction (Tschannen-Moran & Johnson, 2011). Whether teacher sense of efficacy directly influences educational outcomes remains uncertain; however, teacher sense of efficacy has been associated with the amount of effort teachers invest in teaching, their persistence and resilience in the face of setbacks (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), and the quality of instructional strategies they employ (Holzberger, Philipp, & Kunter, 2013), all of which have potential to impact student achievement. As literacy instruction in British Columbia schools is falling short of meeting the needs of all learners (BC Ministry of Education, 2013), reform is necessary. In seeking to understand how to enhance the capability of teachers to meet the literacy instruction needs of all students, an increased understanding of the factors that mediate teacher sense of efficacy for literacy instruction for students with and without reading difficulties is timely.

In this chapter I review the research on teacher sense of efficacy and literacy instruction while highlighting the need for research on the relationship between teacher sense of efficacy and the literacy instruction of struggling readers. First, the evolution of the construct of teacher sense of efficacy, its conceptualization and measurement, and the sources of information that
influence its development are presented. Next, research on the relationship between teacher sense of efficacy and educational outcomes is discussed along with how teacher sense efficacy is influenced by the environments in which teaching takes place. This is followed by a review of current research on teacher sense of efficacy for literacy instruction. Lastly, a discussion of the prevalence of reading difficulties in the classroom, teacher sense of efficacy for the instruction of students with exceptional learning needs and an argument for the importance of exploring the relationship between teacher sense of efficacy and literacy instruction of struggling readers is provided. The chapter concludes with a summary of the issues that guide the current research, as well as the research questions that are addressed.

1.1. Teacher Sense of Efficacy

The term “teacher efficacy” as used in some publications (e.g., Brady & Woolfson, 2008; Ghaith & Yaghi, 1997; Gibson & Dembo, 1984; Guskey, & Passaro, 1994; Tschannen-Moran, Hoy & Hoy, 1998; Woolfolk, Rosoff, & Hoy, 1990; Yeo, Ang, Chong, Huan, & Quek, 2008) appears to be a clipped construction of the longer phrase “teachers’ sense of efficacy” first used in research projects commissioned to the RAND Corporation by Los Angeles Schools (Armor, Conroy-Oseguera, Cox, King, McDonell, Pascal, Pauly, & Zellman, 1976) and by the United States Office of Education (Berman, McLaughlin, Bass, Pauly, and Zellman, 1977). The former study evaluated the effects of instruction for minority students living in low income areas of Los Angeles; the latter study investigated the impact of US Federally funded programs to improve and expand innovative teaching approaches in schools that served children living in low income households. A teacher survey was designed by Armor et al. to investigate teacher attitudes towards teaching minority students. Two items on this survey probed teachers’ feelings about the relative impact of students’ home lives versus instruction at school on students’ academic success (e.g., “when it comes right down to it, a teacher can’t really do much (because) most of a student’s motivation or performance depends on his or her home environment” and “if I try really hard, I can get through to even the most difficult or unmotivated students”) (Armor et al., p. 23). The sum of ratings generated from these two items were considered to be representative of teachers’ sense of efficacy, or “the extent to which a teacher believes he or she has the capacity to produce an effect on the learning of students” (Armor et al, p. 23). Findings showed that achievement gains were greatest among students who had teachers who reported high ratings
of efficacy. Berman et al. expanded on these survey questions and affirmed the findings of Armor et al., as well as demonstrating that teachers’ sense of efficacy significantly predicted the percent of teacher goals met, the amount of change in instructional practices, and whether teachers persisted in the continued use of new materials and instructional approaches after seed funding was removed.

These findings sparked interest in the study of teachers’ sense of efficacy or “teacher efficacy”, and two conceptual strands of theory and research arose. Studies grounded in Rotter’s social learning theory approached the study of teacher efficacy from the perspective of locus of control theory, while studies grounded in Bandura’s social cognitive theory conceptualized teacher sense of efficacy as a type of self-efficacy. Bandura’s work on self-efficacy provides the theoretical basis for the definition of teacher sense of efficacy, as used in the current study, and is reviewed in detail below.

First described by Bandura in 1977 in the article “Self-efficacy: Towards a Unifying Theory of Behavioral Change” self-efficacy is a future-oriented belief about the level of competence a person expects he or she will display in a given endeavour. Bandura (1977, 1986, 1997) makes a distinction between two expectations that influence human behavior: outcome expectations and efficacy expectations. While an outcome expectation refers to “a person’s estimate that a given behaviour will lead to certain outcomes” (Bandura, 1977, p.193); an efficacy expectation is defined as, "beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). According to Bandura, what differentiates outcome expectancies from self-efficacy appraisals is how each belief system influences behaviour. Even if an individual believes that a certain action will lead to a particular outcome (outcome expectancy), it is the person’s belief about whether or not they can perform the necessary action (self-efficacy appraisal) that influences their behaviour (1977, 1986, 1997).

In 1986 Bandura began elaborating on “the influential role of self-referent thought in psychological functioning” (p. 391), and how self-referent thought mediates the relationship between knowledge and action. He proposed that conceptions of personal efficacy were the most influential aspect of self-knowledge in people’s daily lives, and that self-efficacy appraisals are the central mechanism influencing human agency. According to Bandura, “Unless people
believe they can produce desired effects by their action they have little incentive to act” (1997, p. 3). Bandura (1997) lists seven effects of efficacy beliefs that are central to his theory: efficacy beliefs affect (1) people’s choices of actions to take, (2) the amount of effort people devote to actions, (3) how persistent people are when faced with challenges, (4) peoples’ resilience when faced with adversity, (5) how facilitating or hindering people’s thought processes were, (6) the amount of stress and depression people experience in demanding situations, and (7) their levels of achievement. Bandura believed people would not be highly motivated to initiate an action if they did not believe they had the power to produce results.

Self-efficacy beliefs have to do with perceived level of competence, which according to Bandura, makes these beliefs more powerful than actual capabilities as they influence whether our thought patterns will be self-hindering or self-aiding. In Bandura’s words, “The self-assurance with which people approach and manage difficult tasks determines whether they make good or poor use of their capabilities. Insidious self-doubts can easily overrule the best of skills” (1997, p. 35). He further proposed that, as a pivotal mediator between knowledge and action, self-efficacy beliefs act as a powerful driving influence over one’s motivation to act, effort expended in task fulfillment, persistence in the face of setbacks, resilience to adversity, and ones ability to cope with taxing environmental demands (Bandura, 1986, 1997).

Social cognitive theory acknowledges that human thought, affect, and behaviour can be influenced not only by direct experiences, but also by observation of experiences, and social interactions. As, such, Bandura proposed four primary sources of information that people rely on when making self-efficacy appraisals: mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal (Bandura, 1986; 1997).

Mastery experiences, sometimes known as enactive attainments, are the most powerful sources of efficacy information as they come from first hand authentic experiences. The perception that a performance has been successful raises efficacy appraisals, contributing to the expectation that future performance will also be proficient, however not all successful experiences serve to bolster efficacy appraisals. When success is attributed to personal capabilities, achieved early in learning without many setbacks, or on difficult tasks, efficacy appraisals are raised substantially, but if success is achieved later in learning, with excessive external assistance, or the task itself is perceived as easy or unimportant, efficacy appraisals are
not enhanced. By contrast, the perception that a performance has been a failure lowers efficacy appraisals, contributing to the expectation that future performances will also be inadequate. Negative impacts on efficacy are more likely when failure occurs early in learning, and when failure cannot be attributed to either a lack of effort on the part of the individual or to adverse events outside of the individual’s control. As perceptions of new experiences are integrated with past experiences, the impact of new experiences on efficacy appraisals depends in part on the strength and nature of the pre-existing self-perceptions (Bandura, 1986, 1997).

Self-efficacy appraisals are influenced not only by direct personal experiences, but also by vicarious experiences involving the observation or visualizing of a performance of a task by a similar person. Observation of successful performance will raise efficacy appraisals, whereas observation of failure may lead to declines. Self-efficacy appraisals are especially sensitive to vicarious experiences when individuals are uncertain about their ability to perform a task, or when they have had relatively little prior experience on which to base their self-efficacy appraisals. Although vicarious experiences are generally a weaker influence than mastery experiences, they provide social comparative information that can result in significant enduring changes to self-efficacy appraisals (Bandura, 1986; 1997).

Another source of self-efficacy appraisals is verbal persuasion, sometimes referred to as social persuasion. Verbal persuasion occurs when a person of significance expresses their belief, either positive or negative, about an individual’s capabilities to perform a task successfully, which then impacts the individual’s self-efficacy beliefs about the task. Although verbal persuasion alone has limited ability to create a lasting impact on self-efficacy appraisals, it can be effective in helping individuals to believe they possess the capabilities to be successful at a task, leading to a greater likelihood of success. According to Bandura enduring increases in self-efficacy appraisals due to verbal persuasion are more difficult to produce than decreases, as negative results quickly disconfirm illusionary boosts in self-efficacy, and persuasion of inefficacy tends to become a self-fulfilling prophecy (1986, 1997).

In addition to information conveyed via social interaction, people also rely on somatic information about their level of physiological arousal when assessing their capabilities. Once again, it is the individual’s interpretation of their physiological state that determines its influence on self-efficacy. Arousal as measured by increased heart rate and perspiration can be
interpreted either positively as heightened attention, or negatively, as stress or anxiety. While moderate levels of arousal can focus attention and energy on a task, thereby improving ones performance, overly heightened states of arousal may impede performance. As such, when their physiological state is relatively balanced (ie. heart rate and stress levels within the normal to slightly elevated range), individuals are more inclined to report that they expect to be successful (Bandura, 1986; 1997).

Self-efficacy and efficacy are both defined in terms of an individual’s cognitive appraisal of the experience. Further to this, personal factors within the individual, and contextual factors in the environment, influence what experiential information is selected, weighted, and integrated into appraisals of self-efficacy. According to social cognitive theory, people are not automatically shaped and controlled by external stimuli, nor are they solely driven by internal forces. From this perspective, human functioning is a product of triadic reciprocal determinism, where cognitive and other personal factors, behaviour, and environmental influences operate as interacting determinants of each other. Within this model, the term reciprocal refers to mutual action between causal factors, and determinism stands for the effects produced by a combination of the factors involved. It is the human capacity for reflective self-consciousness that mediates the reciprocal relationship between these factors. As people are able to reflect on and analyse their experiences, thoughts and behaviours, not only do they gain understanding of themselves and their environment, they also gain an understanding of the reciprocal relationship between them. Human capacity for self-referent thought also allows individuals to evaluate and adapt thoughts, behaviours, and, to some extent, personal environments as a consequence of experience. It is from personal reflections, evaluations, and interpretations of experience that conceptions of personal self-efficacy arise (Bandura, 1977, 1986, 1997).

1.1.1. The Conceptualization and Measurement of Teacher Sense of Efficacy

With Bandura’s work providing the conceptual underpinnings, Both Gibson and Dembo (1984) and Ashton and Webb (1986) conceptualized teacher sense of efficacy as having two dimensions: personal teaching efficacy, which corresponds to Bandura’s efficacy expectation, and reflects a teacher’s sense of personal responsibility for student learning, and teaching efficacy, which reflects a teacher’s belief about the general relationship between teaching and
learning and corresponds to Bandura’s outcome expectation. In an effort to lend support to their conceptualization of teacher sense of efficacy, Gibson and Dembo (1984) developed and tested a questionnaire designed to capture the two dimensions of teacher sense of efficacy. When analysing the results, researchers used factor analysis which demonstrated that 16 of the 30 items on the questionnaire loaded onto two factors that corresponded with personal teaching efficacy and teaching efficacy. Using the 16 items of the Gibson and Dembo survey that loaded onto personal teaching efficacy and teaching efficacy, the two teacher sense of efficacy measures from the RAND surveys, and four new items, these findings were corroborated by Woolfolk and Hoy (1990).

Over the years studies have supported the existence of two dimensions of teacher efficacy (Armor et al. 1976; Ashoton & Webb, 1986; Berman et al., 1977; Gibson & Dembo, 1984; Guskey & Passaro, 1994; Woolfolk & Hoy, 1990), and while there is general agreement that personal teaching efficacy measures teachers’ personal feelings of competence, there is debate about what teaching efficacy measures. According to Gibson and Dembo, teaching efficacy measures an outcome expectancy defined as what individual teachers feel they can accomplish from their own teaching based on what teachers in general could be expected to accomplish. Bandura argues that this is not an outcome expectancy as outcome expectancies stem from a personal assessment of capabilities and expected level of performance, not from what it is possible for others to accomplish (1997).

In their attempt to bring clarity to the meaning of personal teaching efficacy and teaching efficacy, Guskey and Passaro (1994) explored the construct of teacher efficacy, through use of an adapted version of the efficacy questionnaires developed by Gibson and Dembo (1984), and Woolfolk and Hoy (1990). Guskey and Passaro noted that on the previous questionnaires all of the items designed to capture personal teaching efficacy used the referent “I”, were positively phrased, and had an internal locus, while all the items designed to capture teaching efficacy used the referent “teachers,” were negatively phrased and had an external locus. Thus, Guskey and Passaro changed the referent and locus of some of the items on the questionnaire so that roughly equal numbers represented the following four dimensions: personal internal locus, personal external locus, teacher internal locus, teacher external locus (see figure 1.1). As in prior research, factor analysis of the data yielded two factors, although contrary to prior research, the items loaded onto the internal locus and external locus dimensions, not the personal teaching
efficacy and teaching efficacy dimensions identified by Gibson and Dembo. Although their findings added support to the conceptualization of teacher sense of efficacy as a multidimensional construct with relatively independent dimensions, the researchers state they found no evidence to distinguish between these dimensions on the basis of personal versus teaching efficacy. Instead, Guskey and Passaro conceptualized personal teaching efficacy as capturing factors internal to the teacher such as, “perceptions of personal influence, power, and impact in teaching and learning situations” (p. 639), whereas teaching efficacy captured factors external to the teacher defined as “perceptions of the influence, power, and impact of elements that lie outside the classroom and, hence, may be beyond the direct control of individual teachers” (p. 639). They further concluded that the internal and external dimensions of teacher efficacy represent teacher perceptions of factors that are separate and independent, not different ends of the same continuum.

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*Figure 1.1. Efficacy construct dimensions*

(Guskey & Passaro, 1994)

The findings of Guskey and Passaro (1994) invited new investigation into the conceptualization of the two dimensions of teacher efficacy as well as the tools used to measure these dimensions. Amidst the conceptual confusion surrounding teacher efficacy, Tschannen-Moran, Woolfolk Hoy and Hoy (1998) proposed an integrated model that wove together the two dimensions of teacher efficacy, as well as clarified the relationship between them. The work of Tschannen-Moran et al. states that:

In analyzing the *teaching task and its context*, the relative importance of factors that make teaching difficult or act as constraints is weighed against an assessment of the resources available that facilitate learning. In assessing *self-perceptions of teaching competence*, the teacher judges personal capabilities such as skills, knowledge, strategies, or personality traits balanced against personal weaknesses or liabilities in this particular teaching context. (p. 228)
According to this model, teachers make two interrelated judgments when assessing their beliefs about their teaching capabilities; an assessment of their personal teaching competence *in light of* their assessment of the requirements of the anticipated teaching task. Thus, it is the interaction of task analysis and assessment of personal competence that shapes efficacy beliefs. While assessment of personal teaching competence, previously referred to as personal teaching efficacy, simply encompasses judgements of internal strengths and deficits, assessment of the teaching task, previously referred to as general teaching efficacy, may include judgments of resources, curriculum, school climate, collegial support, leadership, and student factors such as, perceived ability, motivation, and socioeconomic status.

Through the inclusion of teacher judgment of resources and constraints in assessment of both personal competencies and the teaching task, as well as how they are related, the cyclical nature of teacher efficacy (Tschannen-Moran et al., 1998), as presented in figure 1.2, invites a “fuller examination” of teacher efficacy.

*Figure 1.2. The cyclical nature of teacher efficacy*

(Tschannen-Moran et al., 1998)
According to the model presented by Tschannen-Moran and colleagues (1998), verbal persuasion, vicarious experience, physiological arousal and mastery experience are four sources of information that contribute to the formation of self-efficacy beliefs, but cognitive processing mediates how information from these experiences influences teacher efficacy. Cognitive processing determines what information is attended to, how the different sources of information will be weighed and how they are interpreted. In turn, the interpretation of this information influences the analysis of the teaching task (judgment of the resources and constraints in a particular teaching context) and the assessment of personal teaching competence (judgment a teacher makes about his or her capabilities and deficits). At this point in self-efficacy formation a teacher weighs his/her self-perceptions of personal teaching competence in light of the assumed requirements of the anticipated teaching task, and it is the interaction of these two components that shapes teacher efficacy. This model further postulates that judgments of teacher efficacy influence the teacher’s task performance in areas such as instructional goals adopted, effort invested in teaching, and persistence and resilience in the face of setbacks. Then, these performances become new mastery experiences, with new information to be processed and incorporated into future efficacy beliefs. As the model comes full circle, “a teaching performance that was accomplished with a level of effort and persistence influenced by the performer’s sense of efficacy, when completed, becomes the past and a source of future efficacy beliefs” (p. 234).

Tschannen-Moran, et al. (1998) argue that in order for a measure of teacher efficacy to be useful and generalizable it needs to tap teachers’ assessments of their personal competence across the wide range of activities and tasks they perform as part of their job; something they found lacking in previous measures of teacher efficacy. Bandura (2006) concurs, stating, “the efficacy belief system is not a global trait, but a differentiated set of self-beliefs linked to distinct realms of functioning” (p. 307). Accordingly, Bandura believes that global measures of self-efficacy have limited explanatory and predictive value because they have little relevance to the domain of functioning, therefore “scales of perceived self-efficacy must be tailored to the particular domain of functioning that is the object of interest,” (2006, p. 307). This view is supported by Pajares, (1996) who stated that global measures of teacher efficacy that ask teachers to make self-efficacy judgments without a specific task in mind decontextualize and obscure what is being measured.
Building on their 1998 model of teacher efficacy that suggests a valid measure of teacher efficacy must assess both personal competence and an analysis of the task, which includes the resources and constraints of the particular teaching contexts Tschannen-Moran and Woolfolk Hoy (2001) developed a measure of teacher efficacy designed to capture teacher efficacy for a variety of tasks. Originally named the Ohio State Teacher Efficacy Scale, this measure is now known as the Teacher Sense of Efficacy Scale (TSES). The TSES conceptualizes teacher efficacy along three dimensions: efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management. Researchers state that the TSES “is superior to previous measures of teacher efficacy in that it has a unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching, without being so specific as to render it useless for comparisons of teachers across contexts, levels, and subjects” (Tschannen-Moran & Woolfolk-Hoy 2001).

1.1.2. Sources of Teacher Sense of Efficacy

As shown in Figure 1.2, the model of teacher sense of efficacy proposed by Tschannen-Moran et al. (1998) aligns well with Bandura’s (1986, 1997) thinking in that the major influences on self-efficacy beliefs are the attributions and interpretations associated with cognitive analysis of prior experience. The model is developed from social cognitive theory (Bandura, 1986, 1997) which proposes that behaviour, cognitive and other personal factors, and the environment interact to influence each other through the process of reciprocal determinism. Additionally, their model conceptualizes how new experiences are incorporated into reassessment of teacher sense of efficacy for future tasks. In accordance with the cyclical model of teacher efficacy (Tschannen-Moran et al, 1998), not only do mastery experience, vicarious experience, verbal persuasion and physiological arousal influence a teacher’s assessment of their teaching capabilities, they also influence a teacher’s assessment of teaching tasks. An assessment of the teaching task may include judgments of available resources, curriculum to be taught, school climate, collegial support, leadership, and student factors such as, perceived ability, motivation, and socioeconomic status. As stated earlier, the assessment of personal competence and the task are interrelated, but during cognitive processing the weight assigned to various factors will determine their impact on teacher sense of efficacy. Thus how much influence factors associated with the teaching task have on teacher sense of efficacy is dependent on how much weight is placed on those factors.
Building on the work of Bandura (1997), Tschannen-Moran et al. (1998), and Tschannen-Moran and Woolfolk Hoy (2001), in 2007, Tschannen-Moran and Woolfolk Hoy explored the potential antecedents of self-efficacy beliefs for novice and experienced teachers. They found that satisfaction with past professional performance (mastery experience) was moderately related to teachers’ sense of efficacy for both novice and experienced teachers, but that support of colleagues (a measure designed to capture the influence of verbal persuasion on teacher sense of efficacy) and availability of resources (a measure designed to capture the influence of assessment of teaching task on teacher sense of efficacy) only made a significant contribution to explaining variance in teachers’ sense of efficacy for novice teachers. Researchers concluded that as novice teachers have less mastery experiences upon which to draw, verbal persuasion and factors related to the teaching task are more salient in their assessment of their capabilities. The only factor related to assessment of the teaching task that contributed to the variance of teachers’ sense of efficacy for experienced teachers was grade level of students in the classroom. In this instance, teachers of younger grades of students had higher self-efficacy beliefs. Notably, the influence of socioeconomic status of the students on teachers’ sense of efficacy was not statistically detectible.

1.1.3. Teacher Sense of Efficacy and Educational Outcomes

Teachers’ perceived efficacy is a key construct that underlies the motivation of teachers to engage in effective teaching practices (Bandura, 1997). Teachers who believe they will be successful with certain students, in comparison with those who do not, will likely put more effort and preparation into their instruction and will persevere through setbacks (Bandura, 1997, Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). There is a growing body of research that supports Bandura’s (1977) theory that teacher’s self-efficacy beliefs are related to the effort they invest in teaching, their persistence and resilience in the face of setbacks (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), and the quality of instructional strategies they employ (Holzberger, Philipp, & Kunter, 2013). Researchers have found that teachers with high self-efficacy employ effective classroom management strategies (Woolfolk, Rosoff, & Hoy, 1990), innovative teaching methods (Ghaith & Yaghi, 1997), set higher learning goals for students (Wolters & Daugherty, 2007), and have increased persistence and higher involvement in informal learning activities (Lohman, 2006), all of which are components of instruction that have the potential to positively impact student achievement.
Although findings from this research affirm that teaching behaviours mediate the relationship between teachers’ sense of efficacy and student achievement, at present the nature and direction of the relationship between teacher self-efficacy and educational outcomes, such as instructional quality and student achievement remains uncertain. While much research on teacher self-efficacy conceptualizes the construct as determinate of educational outcomes (Ashton & Webb, 1986; Ghaith & Yaghi, 1997; Ross, 1998; Wolters & Daugherty, 2007; Woolfolk, Rosoff & Hoy, 1990) these studies are cross-sectional in nature, therefore direction of the relationship cannot be determined. More recently, findings from longitudinal studies have concluded that teacher self-efficacy should not be solely regarded as a determining variable; it may also be conceptualized as an outcome of educational processes (Caprara, Barbaranelli, Steca & Malone, 2006; Holzberger, Philipp, & Kunter, 2013; Stein & Wang, 1988).

In their longitudinal study, Holzberger, Philipp, and Kunter (2013) explored teacher self-efficacy as both a predictor and an outcome of instructional quality. Instructional quality was conceptualized along three dimensions: cognitive activation (the degree of challenge and engagement that instruction provides students), classroom management (structure and order provided during lessons), and individual learning support (monitoring of the learning process). Researchers analyzed whether teachers’ self-efficacy beliefs influenced consequent instructional quality, as well as whether teachers adjusted their self-efficacy beliefs to reflect achieved levels of instructional quality. Although the findings affirmed those from previous research showing a positive relationship between teacher self-efficacy and instructional quality, the longitudinal analysis revealed only partial support for the view that self-efficacy is a predictor as well as an outcome of instructional quality.

Contrary to their first hypothesis that teacher self-efficacy beliefs would predict future instructional quality, Holzberger and colleagues (2013) found that when teacher’s baseline instructional quality was controlled for, teacher self-efficacy was significantly related to teacher ratings of instructional quality one year later, but did not relate to student ratings of instructional quality. The finding that the effect of teacher self-efficacy on student ratings of instructional quality was not statistically detectible casts doubt as to whether self-efficacy influences teaching behaviours. For their second hypothesis that “teachers obtain information about their competence from instruction – as an instance of mastery experience – and adapt their beliefs accordingly” (p 782), partial support was found. Both student and teacher ratings of instructional
quality with respect to classroom management were related to teacher self-efficacy beliefs one year later; however, only student ratings of the magnitude of cognitive engagement in their classes related to teacher self-efficacy beliefs one year later.

The finding that the relationship between teachers’ sense of efficacy and educational outcomes may be cyclical in nature is theoretically consistent with the views of Bandura (1997) and Tschannen-Moran et al. (1998). Bandura postulated that teachers who believe they have the capability to affect student learning are likely to create positive mastery experiences. As mastery experiences are believed to be the most powerful source of efficacy-relevant information, positive educational outcomes are expected to raise the self-efficacy of teachers and contribute to the amount of effort and persistence teachers allocate to future instruction, thus leading to further mastery experiences. According to Bandura, self-perceptions of competence, are more influential than actual level of competence as, "The self-assurance with which people approach and manage difficult tasks determines whether they make good or poor use of their capabilities. “Insidious self-doubts can easily overrule the best of skills" (Bandura, 1997, p. 35). Additionally, the model proposed by Tschannen-Moran et al. clearly conceptualizes how new experiences can influence future evaluations of self-efficacy; therefore, teachers’ sense of efficacy is conceptualized as both a predictor and outcome of educational outcomes.

While at the moment there is not enough evidence to draw conclusions regarding the directionality of the relationship between teachers’ sense of efficacy, instructional quality and student achievement, the constructs appear to be related, and the nature of these relations warrants further investigation. Further to this, the finding of Hozberger et al. (2013) that even teachers with many years of teaching experience modify their self-efficacy beliefs casts doubt on the assumption that once efficacy beliefs are established they are stable, and affirms the importance of understanding the factors that shape teachers’ sense of efficacy.

1.1.4. Teacher Sense of Efficacy and Context

Teacher self-efficacy beliefs have been defined as context specific (Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran et al. 1998), and can be expected to vary by subject (Ross Cousins & Gadalla, 1996), grade (Tschannen-Moran & Woolfolk Hoy, 2007), or student ability (Brady & Woolfson, 2008; Leyser, 2011; Woolfson & Brady, 2009). These are factors to be considered during analysis of the teaching activity, which requires a consideration of personal
competencies with respect to the specific teaching situation (Tschannen-Moran et al., 1998). While research suggests that teachers’ sense of efficacy is situation specific, questions remain about whether teacher self-efficacy beliefs are transferable across contexts, and to what extent measures of general teacher self-efficacy are related to measures of teacher self-efficacy in a specific instructional domain (Tschannen-Moran & Johnson, 2011; Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran et al. 1998).

As stated earlier Bandura (2006) believes that ones efficacy belief system is not a global trait, but is instead domain specific. If all tasks related to teaching tap a similar set of sub skills, then the domain of functioning can be considered teaching and there may be considerable overlap between teacher sense of efficacy for teaching in general and subject specific teacher efficacy scales. As the amount of overlap is not completely understood, one aspect that is in need of further attention is whether teachers’ sense of efficacy in general translates to teacher sense of efficacy for literacy instruction. Does literacy instruction fall within the domain of teachers’ sense of efficacy in general, or is it a separate task in need of it’s own measure. Literacy instruction is one of the most important aspects of teaching, and yet at the same time, it is one of the most complex and challenging areas of instruction (Austin & Morrison, 1963; Baumann, Hoffman, Duffy-Hester, & Moon, 2000; Moats, 2009). As such, greater understanding of the factors related to the formation of teacher’s beliefs about their capability as an instructor of literacy, as well as the relationship between these beliefs and instructional practices is warranted.

1.2. Teacher Sense of Efficacy for Literacy Instruction

In British Columbia (BC), Canada, the English Language Arts curriculum divides literacy instruction into three major strands: reading and viewing, writing and representing, and oral language (BC Ministry of Education, 2006). Within BC’s educational system, the classroom teacher is responsible for the planning, creation, and implementation of literacy based activities that aim to support and foster student growth in all of the aforementioned areas. As teachers recognize the central role that literacy skills play in each student’s education, literacy instruction is a high priority in the classroom with teachers reporting an average of two hours and twenty-three minutes spent on literacy focused activities and instruction each day (Baumann et al., 2000).
Although approaches to literacy instruction have evolved since Austin and Morrison’s classic study, *The First R: The Harvard Report on Reading in Elementary schools* (1963), an investigation into the state of reading instruction in the United States, and since Baumann and colleges’ (2000) modified replication study, *The First R: Yesterday and Today*, many of the challenges faced by teachers reported in those studies remain the same. Austin and Morrison found that the greatest challenges in literacy instruction reported by teacher participants were: assisting underachieving readers, accommodating the wide range of reading abilities found within a single classroom, and inadequate instructional materials. Similarly, Baumann and his colleagues found that accommodating the diverse range of reading abilities within a classroom, meeting the instructional needs of readers who were struggling to acquire concepts and teaching with insufficient instructional resources were the greatest challenges reported by teachers in the provision of literacy instruction. It is interesting to note that although many teachers indicated that their efforts to accommodate struggling readers was a positive change they had made to their reading programs, accommodation of struggling readers remained a prominent challenge for over 30% of participants.

The provision of meaningful literacy instruction is a responsibility taken on by the classroom teacher that requires substantial time and effort (Baumann et al., 2000). Each student in the classroom brings their own set of cognitive strengths and weaknesses, and there are multiple paths that they may take in their journey to becoming literate. In order to meet the diverse learning needs of students, effective literacy instruction requires the teacher to coordinate numerous complex split-second decisions during the course of instruction in order to accurately meet students at their level of instructional need (Block & Mangieri, 2003; Pinnell, 2002). Due to the reality that the reading abilities of children within a classroom vary widely, a multicomponent literacy program is needed to address this complexity, as for literacy instruction to be effective in supporting student learning it must be suited to the student’s level of development and area of need (NICHD, 2000). Therefore, the classroom teacher must adapt literacy instruction and activities to accommodate the learning needs of students who experience difficulty in learning to read, as well as those who, in comparison to their classmates, are advanced in their reading abilities (Baumann et al., 2000).

As noted previously, according to Bandura (1986, 1997), self-perception of competence is more important than actual ability. Additionally, the cyclical model of teacher efficacy proposed
by Tschannen-Moran (1998), states that during the formation of self-efficacy beliefs, teachers weigh their self-perceptions of personal teaching competence in light of the assumed requirements of the anticipated teaching task. Therefore, to be effective in literacy instruction, teachers must believe that they possess the knowledge and skills necessary to perform the task of literacy instruction successfully (Tschannen-Moran & Johnson, 2011).

While the body of research on the effects and antecedents of teachers’ sense of efficacy is growing, since the RAND studies in the 1970s (Armor et al., 1976; Berman et al., 1977) there has been little published research on the sources of teacher’s self-efficacy beliefs for literacy instruction, and the factors that are theorized to influence its development. While teacher self-efficacy refers to a teacher’s sense of efficacy for teaching in general, teacher self-efficacy for literacy instruction is context specific to the instruction of literacy activities. Researchers have found that teachers’ self-efficacy for instruction in general and their self-efficacy for literacy instruction are related yet distinct constructs that function somewhat independently. Although some overlap exists between the two constructs, they are not identical (Tschannen-Moran & Johnson, 2011). While research suggests that teachers with stronger general teacher self-efficacy also tend to feel more capable of literacy instruction, the interplay between these important dimensions is not completely understood. For example, although teachers may feel confident in their instructional strategies in a general sense, they may not feel confident in their instructional strategies involved in literacy instruction. Or, a teacher may feel capable in the teaching of reading strategies, but not necessarily for student engagement or classroom management. Teachers’ sense of efficacy is influenced by both personal and contextual variables; therefore variance from one context to the next is to be expected (Tschannen-Moran et al. 1998; Tschannen-Moran & Johnson, 2011).

In their study of potential antecedents of teacher self-efficacy for literacy instruction, Tschannen-Moran and Johnson (2011) found that teacher characteristics such as years of teaching experience, race, and gender were not significantly associated with a teachers’ self-efficacy for literacy instruction. Variables related to teacher preparation and professional development that were related to teacher efficacy for literacy instruction included: having taken a children’s literature course at either the undergraduate or graduate level, teacher ratings of the quality of their professional development experiences, and whether or not the teacher participated in a book club. As highest level of education attained was unrelated to teacher
efficacy for literacy instruction, researchers suggested that when assessing competency to provide literacy instruction, it is the teacher’s assessment of the quality of their educational experiences, both formal training at the post-secondary level and informal professional development activities, that is more salient than the amount of formal and informal professional development experiences. Variables related to the classroom contexts in which teachers work that were found to be related to teacher self-efficacy for literacy instruction were: the adequacy of resources available, and the grade level of the students in the classroom. Socioeconomic status of students was not related to teacher efficacy for literacy instruction.

Directionality of relationship aside, teacher self-efficacy beliefs are related to educational outcomes, such as teacher effort, persistence (Tschannen-Moran, et al., 1998), and instructional quality (Holzberger et al. 2013), all of which have the potential to impact student achievement. The NRP states that an assessment of the task of reading instruction involves four interacting factors: students, tasks, materials, and teachers (2000). As teacher sense of efficacy has been defined as both context and subject-matter specific (Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran et al. 1998), aspects of the context that need to be taken into consideration during literacy instruction are the ability of the student (Brady & Woolfson, 2008; Leyser, 2011; Woolfson & Brady, 2009; Yeo, Ang, Chong, Huan, & Quek, 2008), and the grade level being taught (Tschannen-Moran & Johnson, 2011).

Grade level impacts the context of literacy instruction in several ways from instructional focus (BC Ministry of Education, 2006) and type of texts used (Glickman, Anderson, Smythe, Hawkey, & Anderson, 2010) to the types of deficits of the struggling readers (Biancarosa, & Snow, 2004). In 1983, Chall hypothesized that during the early stages of literacy development, approximately grades kindergarten to grade 3, children were “learning to read,” after which, beginning at approximately grade 4, children began “reading to learn.” Although this dichotomous perspective of literacy skill acquisition has been refuted, as educators understand that children are reading to learn from a very young age and that people continue to learn to read new forms of text across their lifespan (Glickman, Anderson, Smythe, Hawkey, & Anderson, 2010), the chief focus of literacy instruction remains different in primary and intermediate grades. While instructional focuses are not mutually exclusive to either primary or intermediate, primary grades focus on the development of foundational literacy skills with an emphasis on decoding strategies, and in intermediate grades it is presumed students have
mastered the ability to decode unknown words and the focus shifts to the development of more complex comprehension skills (BC Ministry of Education, 2006).

Differences also exist in the types of texts utilized for instruction in primary and intermediate classrooms. In primary grades narrative texts are the most common medium of instruction, while in intermediate grades informational and expository texts are the most common medium for instruction (Glickman et al., 2010). Moreover, this change in text types has been posited as factor contributing to Challs’s (1983) notion of “the fourth grade slump,” wherein children who appear to be acquiring literacy skills successfully in the primary grades begin to struggle with literacy skills (Glickman, et al., 2010).

Also, the types of reading difficulties that struggling readers present with differ from primary to intermediate grades. In primary grades, those students identified as having reading difficulties are most often those that struggle with word reading and fluency. Although in intermediate grades some students with reading difficulties still struggle with accurate word reading and fluency, they are in the minority. The majority of intermediate students who have reading difficulties struggle with comprehension. Further to this, comprehension deficits occur for a wide variety of reasons and as such these deficits require an equally wide variety of interventions to ameliorate the student’s reading difficulties (Biancarosa & Snow, 2004).

Important differences do exist between literacy instruction for primary and intermediate grades. As such, the provision of literacy instruction for these two grade groups places different demands on the teacher to meet students educational needs which can lead to differences in teacher sense of efficacy for literacy instruction. In seeking to understand how to enhance the capability of teachers to meet the literacy instruction needs of all students, an increased understanding of the factors that mediate teachers’ self-efficacy for literacy instruction for students at all grade levels, with and without reading difficulties, is necessary.

1.3. Teacher Sense of Efficacy for Literacy Instruction for Children with Reading Difficulties

Since the introduction of the Individuals with Disabilities Education Act in the United States in 1990, it has become increasingly common within North American educational systems
to place children of all abilities in mainstream classrooms with their age appropriate peers. This trend towards inclusive education follows the basic premise that schools are about belonging, nurturing, and educating all students regardless of their differences in ability, culture, gender, language, class, and ethnicity (Kozleski, Artiles, Fletcher, & Engelbrecht, 2009). One of the core global issues in educational policy and planning is the inclusion of students with diverse educational needs into mainstream classrooms (UNESCO, 2007).

The trend towards integration of children with learning difficulties in general education classrooms with their age appropriate peers has led to an increase in the diversity of student ability within a single classroom. Changes in the education system have resulted in an increased numbers of students in mainstream classrooms who either struggle to acquire literacy skills, or acquire literacy skills at a slower rate than their classmates (Naylor, 2002; Pinnell, 2002). All students who learn to read at a slower rate than their peer group are considered to have reading difficulties. Reading difficulties vary in severity, and the source of these difficulties may arise from inefficient phonological processing, reading fluency, and/or reading comprehension (Moats, 2009).

In 2007, 80% of all students in the United States who qualified for services above and beyond general education received instruction specific to reading (NCES, 2007). Canadian schools face a similar situation. According to the Office of the Auditor-General of British Columbia (2008), 25% of children entering Kindergarten in BC are considered “developmentally vulnerable,” in the area of language, cognitive development and communication. Considering it is widely accepted that oral language is the foundation upon which reading comprehension develops, and that reading comprehension also requires the integration of multiple cognitive processes operating at multiple levels to enable the reader to build an accurate mental representation of the text (Perfetti & Adlof, 2012), these students are at risk of presenting with reading difficulties. According to social cognitive theory (Bandura, 1977, 1986, 1997) and the cyclical model of teacher efficacy (Tschannen-Moran, 1998) if teachers are to be successful in the literacy instruction of students with reading difficulties, they must feel they possess the ability to be successful in this task. To be able to assist teachers in this endeavour we must first gain an understanding of the factors that are related to their assessment of their personal competence for the task of literacy instruction for students with reading difficulties.
Although not specific to reading difficulties, when assessing a teacher’s personal competence for teaching students with exceptional learning needs, researchers have found that, teacher experience and access to pre-service course work specific to students with exceptionalities had a positive impact on teacher sense of efficacy for the instruction of students with exceptional learning needs (Leyser, Zeiger, & Romi, 2011; Malinen, Savolainen, Engelbrecht, Xu, Nel, Nel, & Tlale, 2013; Minke, Bear, Deemer, & Griffin, 1996). Teachers with a greater sense of teaching self-efficacy are more likely to attribute a student’s learning difficulties to factors outside the student and thus are more persistent in their efforts to find instructional activities that impact the student’s learning (Brady & Woolfson, 2008; Woolfson & Brady, 2009). Interestingly, Yeo et al. (2008) found that years of teaching experience to be significantly positively related to teacher sense of efficacy for the instruction of low achieving students, but only on the dimension of classroom management and student engagement, and not with respect to instructional strategies. However, this finding contrasts with those of Tschannen-Moran and Johnson (2011) who found years of teaching experience was not significantly related to teacher sense of efficacy for literacy instruction. The findings leave open questions as to why the association between years of experience and teacher sense of efficacy for instruction of low achievers differs from years of experience and teacher sense of efficacy for literacy instruction. Further, are the factors significantly related to teachers’ sense of efficacy for literacy instruction different from those related to the literacy instruction of students with reading difficulties?

At the moment there are no clear answers to these questions. Although much has been written about teachers’ sense of efficacy in general, there is a dearth of research pertaining to teachers’ sense of efficacy for students with reading difficulties. Exploring teachers’ sense of efficacy for literacy instruction of children with reading difficulties is vital as low achieving students face the prospect of being undereducated, under-employed or unemployed as they are ill equipped to fully participate in our modern “high-print” society (Coulombe, & Tremblay, 2005; Glickman et al., 2010). Information on teachers’ sense of efficacy for the literacy instruction of students with reading difficulties represents a gap in the research literature that must be filled as students with reading difficulties are found in virtually every mainstream educational classroom (Dirks, Spyer, van Lieshout, & de Sonneville, 2008), and the literacy instruction of these children is, for the most part, the responsibility of the general education classroom teacher (Baumann, et al., 2000; LDAC, 2005; Moats, 2009; Naylor, 2002). Further to this, teachers identify meeting the literacy instruction needs of students with reading difficulties as one of the greatest challenges.
they face in the classroom (Austin & Morrison, 1963; Baumann et al., 2000). Thus, it is important to gain a better understanding of how the challenge of meeting the literacy instructional needs of students with reading difficulties relates to a teacher’s beliefs about their effectiveness as literacy instructors for this population of learners, as well as the factors that moderate this relationship.

Tschannen-Moran and Johnson (2011) contend that research on teacher sense of efficacy for literacy instruction has been hampered by the lack of a well-conceived, valid measure of the construct. According to Klassen, Tex, Betts, and Gordon (2011), the context-specific nature of teacher self-efficacy beliefs makes it worthwhile to test the theoretical assumptions underlying self-efficacy in diverse contexts and to use domain-specific research instruments that emphasize different areas of teaching such as teaching science, teaching with technology, or as in the current study, teaching literacy skills to students who struggle to acquire them. The limited research that exists has found that teachers’ sense of efficacy for instruction in general and their sense of efficacy for literacy instruction are related yet distinct constructs that function somewhat independently, and although some overlap exists between the two constructs, they are not identical, nor is their relationship completely understood (Tschannen-Moran & Johnson, 2011). Thus, the relationship between student ability and teacher sense of efficacy in context specific situations warrants further exploration (Tschannen-Moran & Woolfolk Hoy, 2001).

In addition to addressing the void in the research by focusing specifically on teacher sense of efficacy for the literacy instruction of students with reading difficulty, this study also addresses factors that influence teacher sense of efficacy for literacy instruction. Based on social cognitive theory and building on past research, the first purpose of this study is to examine further the nature of the relationship between teachers’ sense of efficacy for teaching in general and teachers’ sense of efficacy for literacy instruction. The second purpose is to extend current knowledge of how factors specific to the teacher, and factors associated with the context in which teachers are working are related to teachers’ sense of efficacy in general, teachers’ sense of efficacy for literacy instruction, and teachers’ sense of efficacy for literacy instruction for struggling readers specifically.

The following three research questions are addressed in this study:
1. Are there primary-intermediate teacher group differences in teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, or teacher sense of efficacy for instruction of students with reading difficulties?

2. Are there primary-intermediate teacher group differences in the relations among teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy for instruction of students with reading difficulties?

3. Are primary-intermediate group differences in teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, or teacher sense of efficacy for instruction of students with reading difficulties related to teacher characteristics (years of experience, gender, highest level of education, pre-service teaching literacy experiences, amount of post-secondary literacy training, amount of professional development literacy training), and features of the instructional context (access to instructional resources, collegial support for literacy instruction)?

Past research has found significant differences between elementary and middle school teacher's efficacy for literacy instruction (Tschannen-Moran & Johnson, 2011). Therefore, it is predicted that significant primary-intermediate teacher group differences will be found on measures of teacher efficacy in general, teacher efficacy for literacy instruction, and teacher efficacy for teaching students with reading difficulties.
Chapter 2. Methodology

A description of the research design, sample, data collection procedures, instruments used to measure variables of interest, and data analysis plan for the study are provided in this chapter.

2.1. Design

The study is survey research that incorporates a correlational design. The dependent variables are: general teacher efficacy, teacher efficacy for literacy instruction, and teacher efficacy for literacy instruction of students with reading difficulties. The independent variables associated with the teacher are: gender, number of years teaching experience, highest level of education, teacher perception of pre-service teaching literacy experiences, amount of teacher reported post-secondary coursework specific to literacy instruction, amount of teacher reported professional development specific to literacy instruction. The independent variables related to the teaching context are: grade taught, teacher perceptions of adequacy of access to instructional resources and teacher perceptions of collegial support for literacy instruction.

2.2. Sample

Participants were in-service teachers of grades K – 7 from nine urban elementary schools located in the Lower Mainland of British Columbia. All schools were located in middle class neighbourhoods. Many of the houses in these neighbourhoods contain rental suites, thus the socioeconomic status of the families in the area is variable. Although teachers were not asked to comment on the demographic of their classroom, the Lower Mainland of British Columbia has a high immigrant population resulting in large numbers of students who speak a language other than English at home. Convenience sampling was used to recruit participants from participating schools. Additionally, all teachers who participated in the survey were given a
recruitment letter to share with other potential participants. A total of 104 surveys were distributed and 81 surveys were returned.

2.3. Procedure

Following approval from the SFU Research Ethics Board to conduct this study, written permission was obtained from the school district office, and subsequent written permission from principals was obtained prior to distributing surveys to potential participants at their school sites. As no identifiable personal information was required on the survey, completion and submission of the survey to the principal investigator was considered consent to participate in the study.

Participants were administered a paper survey that included: information pertaining to the study purpose, research procedures, confidentiality, potential risks and benefits, remuneration, and informed consent. Participants completed a paper survey that collected teacher demographic information which included gender, years of teaching experience, and current grade taught. The survey also contained a copy of each of the following measures: (1) the Teacher Sense of Efficacy Scale (TSES), (2) the Teacher Efficacy for Literacy Instruction Scale (TSELI), (3) the Teacher Efficacy for Literacy Instruction of Struggling Readers Scale (TSELI-SR), and (4) items designed by the researcher to examine teacher perceptions of adequacy of access to instructional resources and teacher perceptions of collegial support for literacy instruction, as well as items designed to capture teacher’s perceptions of pre-service teacher exposure to literacy instruction activities, the amount of post-secondary coursework specific to literacy instruction and, the amount of professional development specific to literacy instruction.

Participants recorded their responses directly on the survey. Completed surveys were returned anonymously to the primary investigator. Once all surveys were collected, the data from each survey were entered into a password-protected personal computer for analysis using the Statistical Package for the Social Sciences (SPSS).
2.4. Measures

2.4.1. Teacher Sense of Efficacy scale (TSES)

Previously called the Ohio State Teacher Efficacy Scale, the TSES, designed by Tschannen-Moran & Wollfolk Hoy (2001), was used to measure teacher efficacy beliefs for more general aspects of teaching. The long form of the TSES utilized for this study, consists of 24 items designed to measure general teaching efficacy. The response scale for each item was 9-point unipolar continuum with anchors at 1 – Not at All, 3 – Very Little, 5 – Some Influence, 7 – Quite a Bit, 9 – A Great Deal. Principal-axis factoring with varimax rotation was used by the authors of the survey to yield the three factors which form the subscales within the instrument: self-efficacy for instructional strategies, self-efficacy for student engagement, and self-efficacy for classroom management. Reliabilities for the teacher efficacy subscales calculated using Cronbach’s alpha were 0.91 for instruction, 0.90 for management, and 0.87 for engagement. As previous research has demonstrated that the subscales form a single factor in second-order factor analysis, the subscales have been examined both as a single measure, and separately. For the purposes of this study the subscales were examined as both a single scale and separately. Sample items include:

**Efficacy for instructional strategies**

- To what extent can you provide an alternative explanation or example when students are confused?

**Efficacy for student engagement**

- How much can you do to help your students value learning?

**Efficacy for classroom management**

- How much can you do to establish a classroom management system with each group of students?
2.4.2. Teacher Self-Efficacy for Literacy Instruction Scale (TSELI)

The TSELI consists of 22 items designed to measure teacher efficacy for literacy instruction (Tschanne-Moran & Johnson, 2011). The items on this measure are designed to tap various aspects of literary instruction such as: decoding and comprehension strategies, word study activities, modeling effective strategies, motivating students to value reading, and meeting the needs of both high ability and struggling readers. Tschanne-Moran and Johnson found that all items in the measure load onto a single factor with a Cronbach’s alpha reliability of .96. As in the TSES, the response scale for each item was 9-point unipolar continuum with anchors at 1 – Not at All, 3 – Very Little, 5 – Some Influence, 7 – Quite a Bit, 9 – A Great Deal. Sample items include:

- To what extent can you use a student’s oral reading mistakes as an opportunity to teach effective reading strategies?
- How much can you do to adjust your reading materials to the proper level for individual students?
- To what extent can you help your students monitor their own use of reading strategies?

2.4.3. Teacher Sense of Efficacy for Literacy Instruction of Struggling Readers (TSELI-SR)

The TSELI-SR consists of 17 items, designed by the primary researcher for the purposes of this study. The questionnaire contains 10 items designed to measure teacher efficacy for the literacy instruction of struggling readers as well as items designed to capture the relationship between factors involved in the analysis of the task of literacy instruction, specifically student ability, access to instructional resources, and collegial assistance. To maintain uniformity with the TSES, and TSELI measures, the response scale for each item was 9-point unipolar continuum with anchors at 1 – Not at All, 3 – Very Little, 5 – Some Influence, 7 – Quite a Bit, 9 – A Great Deal. The first 10 items of the measure were adapted from the TSELI through changing the referent “students” to “struggling readers.”. Sample items include:
• To what extent can you use a struggling reader's oral reading mistakes as an opportunity to teach effective reading strategies?

• How much can you do to adjust your reading materials to the proper level for struggling readers?

• To what extent can you help struggling readers monitor their own use of reading strategies?

2.4.4. Instructional Context

Six items designed to capture teachers’ perceptions of the instructional context were based on the cyclical model of teacher efficacy proposed by Tschannen-Moran et al. (1998), and research findings of Tschannen-Moran and Woolfolk Hoy (2001) and Tschannen-Moran and Johnson (2007). A key point of the cyclical model of teacher efficacy, is that teachers make their self-efficacy judgments in light of an analysis of the teaching task and context. For example, in instances where the teaching task may be assessed as more difficult due to constraints posed by the teaching context such as insufficient access to instructional resources, collegial support, or low academic ability on the part of the student, a teacher's sense of efficacy may be lower. Alternatively if a teacher assesses the teaching context to be conducive to student learning, their sense of efficacy may be higher. These items were designed to capture teacher’s perceptions of adequacy of access to instructional resources and teacher’s perceptions of collegial support for literacy instruction, and required participants to judge how strongly they agreed or disagreed with the statement being made. The response scale for each item was a 4-point unipolar continuum with anchors at 1 – Strongly Disagree, 2 - Disagree, 3 – Agree, and 4 – Strongly Agree. Sample items include:

• At my school I have access to instructional resources that I can utilize to meet the literacy instruction needs of my students.

• My colleagues at my school express positive opinions about literacy instruction.

• During my teaching career I have participated in collaborative activities with colleagues that focused on literacy instruction.
2.4.5. **Teacher Experience**

Teachers were asked to respond to items that asked about their years of teaching experience, the amount of post-secondary course work they had participated in specific to literacy instruction, and the amount of professional development they had participated in specific to literacy instruction. Teachers were also asked to respond to questions designed to measure teacher’s perceptions of pre-service teacher exposure to literacy instruction activities. These items required participants to judge how strongly they agreed or disagreed with the statement being made. The response scale for each item was 4-point unipolar continuum with anchors at 1 – *Strongly Disagree*, 2 - *Disagree*, 3 – *Agree*, and 4 – *Strongly Agree*. Sample items include:

- During my pre-service teacher practicum I gained classroom experience in the provision of literacy instruction.

- During my pre-service teacher practicum I had the opportunity to observe a mentor teacher’s approach to literacy instruction.
Chapter 3. Results

Of the 81 surveys returned, data from 73 were subjected to statistical analysis. Seven surveys were excluded as it could not be determined which grade the participant teacher taught, and one survey was excluded as the participant teacher completed only the first page of the survey.

The study sample was comprised of 11 (15%) male and 62 (85%) female teachers in total, of which 45 (62%) were primary and 28 (38%) Intermediate teachers. Twenty-one teachers in the sample (29%) were in their first to sixth year of teaching and were thus classified as novice teachers; 52 teachers (71%) were in their seventh or more year of teaching and were thus classified as master teachers for the purpose of this study. Two teachers (3%) had earned a Doctorate (Ed.D or Ph.D.), 19 (26%) teachers had attained a Master’s degree (MA or M.Ed.), 22 (30%) teachers had attained a Graduate Level Diploma (PB+15), and 28 (38%) teachers had a bachelor’s degree (BA or B.Ed) as their highest post-secondary degree attained. Two participants (3%) did not indicate their level of education. Table 2.1 details the teacher demographic information for all study participants by grade taught (Primary, Kindergarten to Grade 3, Intermediate, Grades 4 to 7).
Table 3.1. Teacher Demographic Information by Grade Taught

<table>
<thead>
<tr>
<th>Grade Taught</th>
<th>Primary (k-3) (n = 45)</th>
<th>Intermediate (4-7) (n = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Novice (1-6)</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>• Master (7+)</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>• Female</td>
<td>44</td>
<td>18</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bachelor</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>• Graduate Diploma</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>• Masters</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>• Doctorate</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Total n = 73

To address if there were primary-intermediate teacher group differences in teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, or teacher sense of efficacy for instruction of students with reading difficulties, a one way multivariate analysis of variance (MANOVA) was conducted. The MANOVA evaluated the effect of grade level taught on teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy for literacy instruction of students with reading difficulties. The independent variable, grade level taught, had two levels, primary and intermediate. Prior to running the MANOVA the data were examined to check if the following assumptions were met: adequate sample size, normality of dependant variables, no multivariate outliers, variables are linearly related, no multicolinearity, and homogeneity of variance and covariance.

Group sizes (45 Primary Teachers, 28 Intermediate Teachers) were large enough to meet the assumption for sample size that the n in each cell be greater than the number of dependent variables. Additionally, as the n in each cell was greater than 20, violation of one of the assumptions could be tolerated. Analysis of the univariate normality of each dependent variables revealed that the skewness and kurtosis values of all variables were between -1.0 and +1.0 indicating reasonably normal distributions, and Q-Q plots did not reveal any significant deviations from normality. Thus assumptions of univariate normality were met. Stem and leaf plots revealed several univariate outliers, but as the sample size was above 20 in each group,
outliers were not removed from the analysis. Based on the number of dependant variables (df = 6, \( p = .001 \)), the critical value for multivariate outliers was 22.46. As the Mahalanobis distance max score of 21.606 did not exceed the critical value, it is possible to conclude that there are no multivariate outliers. Scatterplot matrices showed a general trend from lower left to upper right meeting the assumption that the variables are linearly related. Not all of the variables met the assumption of no multicolinearity. TSES-FS (Teacher Sense of Efficacy Scale – Full Scale) and all of its subscales were significantly correlated with all \( p's < .01 \), TSES-SE (Teacher Sense of Efficacy for Student Engagement) \( (r = .929) \), TSES-CM (Teacher Sense of Efficacy for Classroom Management) \( (r = .918) \), and TSES-IS (Teacher Sense of Efficacy for Instructional Strategies) \( (r = .90) \). The correlations between the TSES-FS and the TESLI \( (r= .647, p < .01) \), and between the TSES-FS and the TESLI-SR \( (r = .561, p < .01) \) were within the acceptable range and met the assumption of no multicolinearity. The magnitude of the correlation between TESLI and TESLI-SR \( (r = .896 p \leq .01) \) was high, and suggests a high degree of multicolinearity. The data met the assumption for homogeneity of covariance (box’s test of equality of covariance matrices, = 44.67, \( p = .007 \)). As the data violated the assumption of no multicolinearity, Pillai’s trace was used to determine if the independent variable, grade taught (primary, intermediate), had an effect on the aggregate of the dependent variables, TSES-FS, TSES-SE, TSES-CM, TSES-IS, TSELI, and TSELI-SR.

Pillai’s trace revealed a significant multivariate main effect for grade taught \( (F(1, 69) = 2.394, p = .038, \text{ partial } \eta^2 = .183) \), with grade level taught explaining 18.3% of the variance in the dependent variables. Power to detect the multivariate main effect was .779. Levene’s test of equality revealed equality of variance for each of the individual dependent variables, TSES-FS \( (p = .461) \), TSES-SE \( (p = .655) \), TSES-CM \( (p = .594) \), TSES-IS \( (p = .736) \), TESLI \( (p = .334) \), TESLI-SR \( (p = .679) \). Given the significance of the results of Pillai’s trace and Levene's test, univariate main effects were examined. To avoid making a Type 1 error, the Bonferroni adjustment was used to adjust the level of significance. In this case the level of significance was set at .05 and the number of dependent variables was 6 \( (.05/6 = .008) \), thus the level of significance required for statistical significance was .008. The test of between subject effects did not reveal significant univariate main effects for grade taught, \( all \ p > .008 \). Given the lack of statistical significance of the univariate main effects, the null hypothesis (Ho: \( \mu_1 = \mu_2 \)) is retained, and it is concluded that grade taught does not have a statistically significant effect on teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher
sense of efficacy for literacy instruction of students with reading difficulties. Table 3.2 reports the means, standard deviations and confidence intervals for the dependent variables for primary and intermediate teachers’ sense of efficacy in general, sense of efficacy for literacy instruction and sense of efficacy for literacy instruction of students with reading difficulties.

**Table 3.2. Primary and Intermediate Teacher Sense of Efficacy in General, for Literacy Instruction, and for Literacy Instruction of Struggling Readers**

<table>
<thead>
<tr>
<th></th>
<th>Primary Teachers</th>
<th></th>
<th>Intermediate Teachers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (sd)</td>
<td>95% Confidence Interval</td>
<td>Mean (sd)</td>
<td>95% Confidence Interval</td>
</tr>
<tr>
<td>Instructional Strategies</td>
<td>7.33 (.85)</td>
<td>7.07, 7.59</td>
<td>7.35 (.87)</td>
<td>7.02, 7.68</td>
</tr>
<tr>
<td>Student Engagement</td>
<td>6.80 (.97)</td>
<td>6.49, 7.11</td>
<td>6.85 (1.10)</td>
<td>6.46, 7.24</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>7.04 (1.00)</td>
<td>6.73, 7.35</td>
<td>7.32 (1.08)</td>
<td>6.93, 7.72</td>
</tr>
<tr>
<td>TSES</td>
<td>7.06 (.85)</td>
<td>6.79, 7.32</td>
<td>7.18 (.95)</td>
<td>6.83, 7.52</td>
</tr>
<tr>
<td>TSELI</td>
<td>7.16 (1.15)</td>
<td>6.80, 7.50</td>
<td>6.70 (1.27)</td>
<td>6.24, 7.17</td>
</tr>
<tr>
<td>TESLI-SR</td>
<td>6.78 (1.39)</td>
<td>6.38, 7.18</td>
<td>6.11 (1.26)</td>
<td>5.59, 6.63</td>
</tr>
</tbody>
</table>

Note: Scores ranged from 1 to 9, the higher the score the greater the sense of efficacy. Instructional strategies, student engagement, and classroom management are subscales of TSES. TSES = teacher sense of efficacy in general, TSELI = teacher sense of efficacy for literacy instruction, TESLI-SR = teacher sense of efficacy for literacy instruction of struggling readers.

To address if there were primary-intermediate teacher group differences in relations among teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, or teacher sense of efficacy for literacy instruction of students with reading difficulties, correlational analyses were conducted. As the patterns of correlations for both primary and intermediate groups were similar, the data was collapsed and correlations among the dependent variables were run for the total sample. The null hypothesis tested for each dependent variable was (Ho: \( \rho = 0 \)), which states that there are no relationships among teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy for instruction of students with reading difficulties.

Prior to submitting the data to correlational analysis, the following assumptions were met. The variables were continuous, and scatterplots were examined for outliers, linearity, and homoscedasticity. Although scatterplots revealed that there were several outliers, the data did
not appear to have a restricted range and generally followed a 45-degree line from lower left to upper right, indicating a positive linear relationship between the variables. A normal bivariate distribution was also observed.

After all the assumptions were met, Pearson correlation coefficients were computed to assess the relationships among teacher sense of efficacy in general (full scale and three subscales, student engagement, classroom management, and instructional strategies), teacher sense of efficacy for literacy instruction and teacher sense of efficacy for instruction of students with reading difficulties (see Table 3.3). There were moderate to large positive correlations among all of the dependent variables. Results were as follows: teacher sense of efficacy in general and teacher sense of efficacy for literacy instruction were positively correlated \( (r (69) = .65, p < .01, \text{two tailed}, r^2 = .42) \) as were teacher sense of efficacy in general and teacher sense of efficacy for literacy instruction of struggling readers \( (r (70) = .56, p < .01, \text{two tailed}, r^2 = .31) \) and teacher sense of efficacy for literacy instruction and teacher sense of efficacy for literacy instruction of students with reading difficulties \( (r (69) = .9, p < .01, \text{two tailed}, r^2 = .81) \).

As results revealed statistically significant correlations among teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy for instruction of students with reading difficulties, the null hypothesis \( \text{Ho: } \rho = 0 \) was rejected and the alternative hypothesis \( \text{HA: } \rho \neq 0 \) was retained. Results support that both teacher sense of efficacy for literacy instruction and teacher sense of efficacy for literacy instruction of students with reading difficulties are related to teacher sense of efficacy in general. The magnitude of the correlations obtained between teacher sense of efficacy for literacy instruction and teacher sense of efficacy for literacy instruction of students with reading difficulty were moderate and suggest that these measures share variance with a common construct.

Table 3.3 displays the correlations for teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, and teacher sense of efficacy for literacy instruction of students with reading difficulties, as well as the subscales of teacher sense of efficacy in general (student engagement, classroom management, instructional strategies). Also included in Table 3.3 are correlations between the dependent variables (teacher sense of efficacy in general, student engagement, classroom management, instructional strategies, teacher sense of efficacy for literacy instruction, and teacher sense of efficacy for literacy instruction of students with reading difficulties), and the continuous independent variables designed to measure teacher reported
amount of literacy based post-secondary coursework, teacher reported amount of literacy based professional development activities, teacher perceptions of pre-service teacher exposure to literacy instruction activities, teachers’ perceptions of collegial support for literacy instruction and teacher perceptions about their access to instructional resources.

Table 3.3. Correlations among Teacher’s Sense of Efficacy in General, for Literacy Instruction, for Literacy instruction of Struggling Readers, Teacher Training variables, and Instructional Support variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TSES</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 TSES-SE</td>
<td>.93**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 TSES-CM</td>
<td>.92**</td>
<td>.73**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 TSES-IS</td>
<td>.90**</td>
<td>.77**</td>
<td>.73**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 TESLI</td>
<td>.65**</td>
<td>.64**</td>
<td>.53**</td>
<td>.61**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 TESLI-SR</td>
<td>.56**</td>
<td>.61**</td>
<td>.43**</td>
<td>.50**</td>
<td>.90**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Training-PS</td>
<td>.29*</td>
<td>.26*</td>
<td>.30*</td>
<td>.25*</td>
<td>.35**</td>
<td>.37**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Training-PD</td>
<td>.29*</td>
<td>.23*</td>
<td>.26*</td>
<td>.31**</td>
<td>.25*</td>
<td>.22</td>
<td>.57**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Pre-service Exp.</td>
<td>.31**</td>
<td>.35**</td>
<td>.27*</td>
<td>.23*</td>
<td>.27*</td>
<td>.25*</td>
<td>.36**</td>
<td>.26*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>10 Collegial Support</td>
<td>.03</td>
<td>.02</td>
<td>.46</td>
<td>.13</td>
<td>.17</td>
<td>.13</td>
<td>.04</td>
<td>.14</td>
<td>.05</td>
<td>-</td>
</tr>
<tr>
<td>11 Instruc. Resources</td>
<td>.24*</td>
<td>.32**</td>
<td>.14</td>
<td>.19</td>
<td>.17</td>
<td>.18</td>
<td>.09</td>
<td>.12</td>
<td>-.22</td>
<td>.14</td>
</tr>
</tbody>
</table>

Notes: = TSES = Full scale of teacher sense of efficacy for instruction in general, TSES-IS = teacher sense of efficacy for instructional strategies (subscale of TSES), TSES-SE = teacher sense of efficacy for student engagement (subscale of TSES), TSES-CM = teacher sense of efficacy for classroom management (subscale of TSES), TESLI = teacher sense of efficacy for literacy instruction, TESLI-SR = teacher sense of efficacy for literacy instruction of struggling reader, Training-PS = teacher reported amount of literacy based post-secondary coursework, Training-PD = teacher reported amount of literacy based professional development activities, Pre-service Exp = teacher perceptions of pre-service teacher exposure to literacy instruction activities, Instruc resources = teachers’ perceptions about their access to instructional resources.

N = 73; * p < .05; ** p < .01

The total sample was also used to examine the associations among teacher characteristics and features of the instructional context and the dependent variables. As shown in Table 3.3, significant correlations were found between self-reported perception of pre-service teacher exposure to literacy instruction activities and amount of self-reported university coursework specific to literacy instruction, and teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, and teacher sense of efficacy for literacy instruction of students with reading difficulties. Self-reported pre-service teacher exposure to literacy
instruction activities correlated with teacher sense of efficacy in general \((r(71) = .31, p \leq .01,\) two tailed, \(r^2 = .09)\); teacher sense of efficacy for literacy instruction, \((r(69) = .27, p \leq .05,\) two tailed, \(r^2 = .07)\); teacher sense of efficacy for literacy instruction of students with reading difficulties, \((r(70) = .25, p \leq .05,\) two tailed, \(r^2 = .06)\). Amount of self-reported university coursework specific to literacy instruction correlated with: teacher sense of efficacy in general, \((r(68) = .29, p \leq .05,\) two tailed, \(r^2 = .08)\); teacher sense of efficacy for literacy instruction, \((r(68) = .35, p \leq .01,\) two tailed, \(r^2 = .12)\); and teacher sense of efficacy for literacy instruction of students with reading difficulties, \((r(67) = .37, p \leq .01,\) two tailed, \(r^2 = .13)\). The amount of self-reported professional development specific to literacy instruction, significantly correlated with teacher sense of efficacy in general \((r(70) = .29, p \leq .05,\) two tailed, \(r^2 = .08)\), and teacher sense of efficacy for literacy instruction \((r(66) = .35, p \leq .01,\) two tailed, \(r^2 = .12)\). Interestingly, the amount of self-reported professional development specific to literacy instruction was not significantly correlated with teacher efficacy for literacy instruction of students with reading difficulties.

Teacher’s perception of adequacy of access to instructional resources was the only feature of the instructional context to have correlate significantly with any of the dependent variables. The correlation between teacher sense of efficacy in general and teacher perception of adequacy of access to instructional resources was small but significant, \((r(71) = .24, p \leq .05,\) two tailed, \(r^2 = .05)\). The only other significant correlation was between teacher perception of adequacy of access to instructional resources and a subscale of the TSES measure, sense of efficacy for student engagement, \((r(71) = .32, p \leq .01,\) two tailed, \(r^2 = .10)\). No significant correlations were found between teacher perception of collegial support for literacy instruction and any of the dependent variables.

Means and standard deviations for additional categorical independent variables are displayed in Table 3.4, (years of experience) Table 3.5 (highest level of education), and Table 3.6 (gender).
<table>
<thead>
<tr>
<th></th>
<th>Novice Teachers</th>
<th>Master Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 20 )</td>
<td>( n = 51 )</td>
</tr>
<tr>
<td>Mean (sd) 95% Confidence Interval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructional Strategies</td>
<td>7.09 (.83)</td>
<td>7.43 (.85)</td>
</tr>
<tr>
<td></td>
<td>6.71, 7.47</td>
<td>7.20, 7.67</td>
</tr>
<tr>
<td>Student Engagement</td>
<td>6.70 (.98)</td>
<td>6.89 (1.03)</td>
</tr>
<tr>
<td></td>
<td>6.25, 7.15</td>
<td>6.58, 7.15</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>6.79 (1.01)</td>
<td>7.23 (1.01)</td>
</tr>
<tr>
<td></td>
<td>6.34, 7.24</td>
<td>7.00, 7.57</td>
</tr>
<tr>
<td>TSES</td>
<td>6.86 (.85)</td>
<td>7.20 (.88)</td>
</tr>
<tr>
<td></td>
<td>6.48, 7.25</td>
<td>6.95, 7.44</td>
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<tr>
<td>TSELI</td>
<td>6.73 (1.29)</td>
<td>7.09 (1.17)</td>
</tr>
<tr>
<td></td>
<td>6.19, 7.27</td>
<td>6.75, 7.43</td>
</tr>
<tr>
<td>TESLI-SR</td>
<td>6.44 (1.44)</td>
<td>6.56 (1.35)</td>
</tr>
<tr>
<td></td>
<td>5.82, 7.05</td>
<td>6.18, 6.95</td>
</tr>
</tbody>
</table>

*Note:* Scores ranged from 1 to 9, the higher the score the greater the sense of efficacy. Instructional strategies, student engagement, and classroom management are subscales of TSES. TSES = teacher sense of efficacy in general; TESLI = teacher sense of efficacy for literacy instruction; TESLI-SR = teacher sense of efficacy for literacy instruction of struggling readers.

---

<table>
<thead>
<tr>
<th></th>
<th>Bachelors ( n = 28 )</th>
<th>Graduate Diploma ( n = 21 )</th>
<th>Masters ( n = 18 )</th>
<th>Doctorate ( n = 2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (sd)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructional Strategies</td>
<td>7.10 (.86)</td>
<td>7.46 (.73)</td>
<td>7.40 (.93)</td>
<td>7.69 (.62)</td>
</tr>
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<td>Student Engagement</td>
<td>6.60 (.98)</td>
<td>6.98 (.86)</td>
<td>6.82 (1.20)</td>
<td>7.00 (.88)</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>6.90 (1.00)</td>
<td>7.12 (.90)</td>
<td>7.39 (1.18)</td>
<td>7.25 (1.41)</td>
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<tr>
<td>TSES</td>
<td>6.87 (.87)</td>
<td>7.20 (.71)</td>
<td>7.21 (1.04)</td>
<td>7.07 (.87)</td>
</tr>
<tr>
<td>TSELI</td>
<td>6.74 (1.13)</td>
<td>7.27 (1.17)</td>
<td>7.00 (1.32)</td>
<td>7.00 (1.22)</td>
</tr>
<tr>
<td>TESLI-SR</td>
<td>6.25 (1.43)</td>
<td>6.92 (1.18)</td>
<td>6.48 (1.45)</td>
<td>6.05 (.35)</td>
</tr>
</tbody>
</table>

*Note:* Scores ranged from 1 to 9, the higher the score the greater the sense of efficacy. Instructional strategies, student engagement, and classroom management are subscales of TSES. TSES = teacher sense of efficacy in general; TESLI = teacher sense of efficacy for literacy instruction; TESLI-SR = teacher sense of efficacy for literacy instruction of struggling readers.
Table 3.6. Gender and Teacher Sense of Efficacy in General, for Literacy Instruction, and Literacy Instruction of Struggling Readers

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n = 10$</td>
<td>$n = 61$</td>
</tr>
<tr>
<td>Mean (sd)</td>
<td>Mean (sd)</td>
<td></td>
</tr>
<tr>
<td>Instructional Strategies</td>
<td>7.55 (.57)</td>
<td>7.30 (.89)</td>
</tr>
<tr>
<td>Student Engagement</td>
<td>7.04 (1.15)</td>
<td>6.78 (.99)</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>7.20 (.69)</td>
<td>7.14 (1.08)</td>
</tr>
<tr>
<td>TSES</td>
<td>7.26 (.64)</td>
<td>7.07 (.92)</td>
</tr>
<tr>
<td>TSELI</td>
<td>6.81 (1.12)</td>
<td>7.01 (1.23)</td>
</tr>
<tr>
<td>TESLI-SR</td>
<td>6.42 (1.17)</td>
<td>6.54 (1.40)</td>
</tr>
</tbody>
</table>

Note: Scores ranged from 1 to 9, the higher the score the greater the sense of efficacy. Instructional strategies, student engagement, and classroom management are subscales of TSES. TSES = teacher sense of efficacy in general TESLI = teacher sense of efficacy for literacy instruction, TESLI-SR = teacher sense of efficacy for literacy instruction of struggling readers.

The data in tables 3.4 to 3.6 was submitted to a series of univariate analysis of variance (ANOVA) procedures to determine whether years of teaching, highest level of education, or gender accounted for variance in the teacher sense of efficacy measures. The test of between subject effects did not reveal statically significant univariate main effects ($p > .008$) for: years of teaching experience, highest level of education, and gender. The significance level was arrived at by starting with $p = .05$ and applying the Bonferroni adjustment bringing the level of significance required for statistically significant results to .008. Given the lack of significance of the univariate main effects, the null hypothesis ($H_0: \mu_1 = \mu_2$) is retained, and it is concluded that years of experience, highest level of education, and gender do not have a significant effect on teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy for literacy instruction of students with reading difficulties.

In sum, teachers in the present sample felt efficacious for all aspects of teaching in general, including literacy instruction and literacy instruction for students with reading difficulties with mean scores for all measures of teacher self-efficacy beliefs ranging from 6.05 to 7.69 on a 9-point scale.
Chapter 4. Discussion

The first purpose of this study was to examine the relationship among teacher sense of efficacy for teaching in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy for teaching struggling readers.

Although it was hypothesized that primary and intermediate teachers would vary in their sense of efficacy for teaching, findings did not support this and the hypothesis was rejected. Thus, the findings of the present study do not support the findings of Tschannen-Moran and Johnson (2011), who found that grade taught contributed to statistically significant differences in teachers’ sense of efficacy for literacy instruction. Between the two studies there were differences in the grade groupings and school context that could have contributed to different results. While the present study included only elementary school teachers and divided them into primary (grades k – 3) and intermediate (grades 4 – 7), Tschannen-Moran and Johnson compared elementary and middle school teachers. Although researchers did not indicate the grades associated with elementary and middle schools, the grades generally associated with this type of school distinction are elementary (k - 5) and middle school (6 - 8). Moreover, as elementary schools students generally have only one classroom teacher for all core subjects, while middle school students may have several, this contextual difference may have contributed to the discrepancies between the findings of the present study and those of Tschannen-Moran and Johnson.

Taken together, findings of both studies leads to the hypothesis that teachers’ sense of efficacy may decline with increases in grade level taught. This hypothesis might be tested through longitudinal studies that document how teacher belief systems about their competency to teach students in general, and struggling readers in particular change over time. Further to this, that differences in the structure of elementary and middle schools may contribute to differences in teacher sense of efficacy for literacy instruction is worthy of continued exploration. Past research contends that student achievement is related to teacher sense of efficacy,
therefore, features of the elementary school model that distinguish it from a middle school model of instruction may be more conducive to facilitating the development of student’s literacy skills. Further investigation into differences between teachers of the same grades in differing school models may contribute to a more comprehensive understanding of how school context is related to teacher sense of efficacy and possibly student achievement.

To address the associations among the dependent variables, correlations between teacher sense of efficacy, teacher sense of efficacy for literacy instruction, and teacher sense of efficacy for literacy instruction of students with reading difficulties were computed. Findings of the present study concur with those of Tschannen-Moran and Johnson (2011), who reported that teacher sense of efficacy in general and teacher sense of efficacy for literacy instruction are related constructs. While Tschannen-Moran and Johnson contend that teacher sense of efficacy in general and teacher sense of efficacy for literacy instruction are related but distinct constructs, the present analysis suggests that this overlap is considerable. Further to this, the findings in the present study suggest teachers who feel that they are prepared to teach literacy to students in general also feel they are competent to teach students with reading difficulties.

The second purpose of this study was to examine how factors specific to the teacher, and factors associated with the features of the instructional context in which teachers are working are related to teacher sense of efficacy in general, teacher sense of efficacy for literacy instruction, and teacher sense of efficacy for literacy instruction for struggling readers specifically. In general, teachers’ perceptions about the adequacy of their access to instructional resources were associated with teacher sense of efficacy in general and to teacher sense of efficacy to promote student engagement. These findings lend limited support to the idea that a teacher’s perception of their ability to engage students in the learning process is associated with their perceptions about whether they have what they believe to be adequate instructional resources at their disposal. Further exploration of the relationships among teachers’ beliefs about their access to instructional resources and their sense of efficacy for promoting student engagement and efficacy to instruct students with reading difficulties would be a worthy endeavor.

As the findings did not support further pursuit of primary-intermediate group differences, other categorically coded teacher characteristics variables (years of experience, gender, and
highest level of education) were examined to see if they contributed to differences in teachers sense of efficacy in general, teacher sense of efficacy for literacy instruction and teacher sense of efficacy instruction for students with reading difficulties. All teacher characteristics proved to be poor predictors of teacher self-efficacy beliefs. Teachers in the present study felt efficacious for all aspects of teaching in general, including literacy instruction and literacy instruction for struggling readers. These findings contrast those of Tschannen-Moran and Hoy (2007) who found differences between novice and career teachers’ sense of efficacy in general. Differences in the classification of novice teachers in the present study and the study conducted by Tschannen-Moran and Hoy may have contributed to differing results, while the present study classified teachers as novice if they had 6 or less years of experience, Tschannen-Moran and Hoy classified teachers as novice if they had 3 or less years of experience.

In 2000, Baumann and colleagues found that teachers perceived meeting the literacy instruction needs of struggling readers as one of the greatest challenge in the classroom, findings of the present study suggest that this may not be a belief that is subject to change with years of experience. Although not statistically detectable, the sample in the present study demonstrated that master teachers had a higher sense of efficacy for teaching in general and literacy instruction as compared to novice teachers, yet for teacher sense of efficacy for the literacy instruction of students with reading difficulties, there was virtually no difference between the groups. Sense of efficacy for literacy instruction and sense of efficacy for literacy instruction of students with reading difficulties appear to be highly related, yet in the present sample, teacher sense of efficacy for literacy instruction demonstrated a slight increase with years of experience, while literacy instruction of students with reading difficulties remained virtually the same, makes this a point worthy of further investigation.

The findings in this study support the theorizing of Tschannen-Moran et al. (1998) which states that when assessing beliefs about their capabilities teachers make two interrelated judgements: an assessment of the requirements of the teaching task and an assessment of their teaching capabilities in light of the requirements of teaching task, it could be proposed that teachers saw the task of literacy instruction of struggling readers equivalent to teaching literacy instruction in general and thus judged themselves as equally capable of teaching students with and without literacy difficulties.
4.1. Limitations

The present study has a number of limitations that should be taken into consideration during interpretation of the results. The sample size was small (N = 73), and the group sizes used to look for differences were unequal. Both of these factors can lead to inaccurate results during statistical analysis. Although no specific demographic of teacher or school was targeted, there was no random selection for participation in this study. Self-selection bias may also be a limiting factor, because participation in the survey was voluntary, there may have been differences between those teachers who completed and returned surveys in comparison to those teachers who did not return their surveys. As both dependent and independent variables were from a single survey, and a single set of respondents, the results may have also suffered from the effects of common-source bias. Also, the measures used to capture teacher perceptions of pre-service teacher exposure to literacy instruction activities, teacher reported amount of university coursework specific to literacy instruction, teacher reported amount of professional development specific to literacy instruction, teacher perceptions of collegial support and teacher perceptions of adequacy of access to instructional resources were created by the primary researcher for the purposes of the present study. These items were limited in number and also limited in their ability to truly capture the dimensions they were designed to measure.

The circumstances under which the present study was conducted may have also influenced the results. At the time that the survey was being conducted, teachers were locked out of their classrooms during non-instructional times, this then escalated into a full scale walk out where teachers were actively walking picket lines. The feelings brought about by the job action being taken may have influenced teacher responses to the survey items. As all of the measures on the survey were designed to capture teacher perceptions of their capabilities to perform the duties of their job and teacher perceptions of the context in which they provide instruction, negative feelings towards the employer and working conditions combined with feelings of unrecognized personal self-worth may have impacted teachers responses. Job action may have also contributed to a heightened sense of collective efficacy, a belief about the capability of the group to bring about a desired end. As demonstrated by Goddard and Goddard (2001) higher levels of collective efficacy are associated with higher levels of teacher sense of efficacy.

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Another possible explanation for lack of significant differences found between groups in response to measures in the present study is related to sample homogeneity. In the present sample, primary and intermediate teachers indicated similar amounts of university coursework specific to literacy instruction, and near equal levels of participation in professional development activities specific to literacy instruction, and professional development activities specific to the literacy instruction of student with reading difficulties. As both post-secondary training and professional development activities are variables considered to influence the development of a teachers’ sense of efficacy as sources of verbal persuasion and vicarious experience, and teachers in this sample indicated similar amounts of exposure to literacy based university coursework and professional development activities, this may have contributed to a lack of variation between the two groups.

4.2. Implications

According to Bandura, “when different spheres of activity are governed by similar sub-skills there is some inter-domain relation in perceived efficacy” (2006, p.308). The results of the present study demonstrate this, there is a moderate degree of association between teacher sense of efficacy in general and teacher sense of efficacy for literacy instruction, most likely because the task of literacy instruction taps many of the same sub-skills teachers utilize during teaching more generally. Further investigation into the relationship between teacher sense of efficacy in general and other specific areas of teaching is necessary to gain a more complete understanding of the relationship between teacher sense of efficacy in general and subject-specific teacher sense of efficacy.

In addition, results suggest that teachers who perceive themselves to be more efficacious for literacy instruction also feel more efficacious for the literacy instruction of students with reading difficulties. Again, further research on the relationships between these two constructs is necessary.

Past research has stated that more research is needed in order to understand how specific measures of self-efficacy need to be to so that they accurately reflect a person’s assessments of their capabilities to execute a task. The present study demonstrates that the TSES, which measures teacher sense of efficacy for teaching in general, is a moderately related
to teacher sense of efficacy for literacy instruction, and the TSELI, which measures teacher sense of efficacy for literacy instruction is highly related to teacher sense of efficacy for the literacy instruction of students with reading difficulties. Thus results of the present study suggest that the TSES is a moderately generalizable to more specific aspects of teaching and that the TSELI is generalizable for use with students of all abilities. As there appears to be an extensive overlap with teacher sense of efficacy for literacy instruction and teacher sense of efficacy for literacy instruction of students with reading difficulties, results also suggest that there is no need to develop or use a measure of teacher self-efficacy beliefs specific to literacy instruction for students with reading difficulties.
References


# Appendix A.

## Teacher Demographics, Experience and Instructional Context

**Survey # __________**

### Teacher Demographic Information

**Directions:** Please indicate your responses by circling one answer to each of the following question.

1. Please indicate how many years you have worked, either as a part-time or full-time teacher.
   - 1–6 years
   - 7+ years

2. The majority of my teaching experience is at the following grade levels:
   - primary (K-3)
   - intermediate (4-7)

3. Highest degree attained:  
   - BA
   - PB+15
   - M.Ed.
   - MA
   - Ed.D
   - PHD

4. Gender:  
   - male
   - female

5. Please indicate the number of academic courses taken prior to and throughout your teaching career designed to enhance your knowledge of:
   - literacy development in children  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
   - literacy instruction  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
   - students with reading difficulties  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
   - literacy instruction for students with reading difficulties  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+

6. Please indicate the number of professional development opportunities you have participated in designed to enhance your knowledge of:
   - literacy development in children  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
   - literacy instruction  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
   - students with reading difficulties  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
   - literacy instruction for students with reading difficulties  
     - 0
     - 1
     - 2
     - 3
     - 4
     - 5+
### Factors Related to Teacher Efficacy for Literacy Instruction

This questionnaire is designed to help us gain a better understanding of how teacher training, experiences, colleagues, and instructional resources, impact teacher’s feelings about literacy instruction.

Directions: Please indicate your opinion about each of the questions below by circling one of the four responses in the columns on the right, ranging from (1) “Strongly Disagree” to (4) “Strongly Agree.”

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. During my pre-service teacher practicum I gained classroom experience in the provision of literacy instruction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. During my pre-service teacher practicum I gained classroom experience in the provision of literacy instruction for struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. During my pre-service teacher practicum I had opportunities to observe a mentor teacher’s approach to literacy instruction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. During my pre-service teacher practicum I had opportunities to observe a mentor teacher’s approach to literacy instruction for struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. My colleagues at my school express positive opinions about literacy instruction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. My colleagues at my school express positive opinions about literacy instruction for struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. During my teaching career I have participated in collaborative activities with colleagues that focused on literacy instruction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. During my teaching career I have participated in collaborative activities with colleagues that focused on literacy instruction for struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. At my school I have access to instructional resources that I can utilize to meet the literacy instruction needs of my students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. At my school I have access to instructional resources I can utilize to meet the literacy instruction needs of struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix B.

Teacher Sense of Efficacy Scale (TSES)

Created by Tschannen-Moran & Wollfolk Hoy (2001)
### Teachers’ Sense of Efficacy Scale (long form)

**Teacher Beliefs**

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

<table>
<thead>
<tr>
<th>How much can you do?</th>
<th>Nothing</th>
<th>Very Little</th>
<th>Some Influence</th>
<th>Quite a Bit</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to get through to the most difficult students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>2. How much can you do to help your students think critically?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>3. How much can you do to control disruptive behavior in the classroom?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>4. How much can you do to motivate students who show low interest in school work?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>5. To what extent can you make your expectations clear about student behavior?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>6. How much can you do to get students to believe they can do well in school work?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>7. How well can you respond to difficult questions from your students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>8. How well can you establish routines to keep activities running smoothly?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>9. How much can you do to help your students value learning?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>10. How much can you gauge student comprehension of what you have taught?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>11. To what extent can you craft good questions for your students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>12. How much can you do to foster student creativity?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>13. How much can you do to get children to follow classroom rules?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>14. How much can you do to improve the understanding of a student who is failing?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>15. How much can you do to calm a student who is disruptive or noisy?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>16. How well can you establish a classroom management system with each group of students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>17. How much can you do to adjust your lessons to the proper level for individual students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>18. How much can you use a variety of assessment strategies?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>19. How well can you keep a few problem students from ruining an entire lesson?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>20. To what extent can you provide an alternative explanation or example when students are confused?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>21. How well can you respond to defiant students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>22. How much can you assist families in helping their children do well in school?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>23. How well can you implement alternative strategies in your classroom?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>24. How well can you provide appropriate challenges for very capable students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>
Appendix C.

Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI)

Created by Tschannen-Moran & Johnson (2011)
**Teacher Beliefs - TSELI**

*Directions:* Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum. Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

<table>
<thead>
<tr>
<th>Question</th>
<th>None at all</th>
<th>Very Little</th>
<th>Some Degree</th>
<th>Quite A Bit</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent can you use a student’s oral reading mistakes as an opportunity to teach effective reading strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. To what extent can you use a variety of informal and formal reading assessment strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. To what extent can you adjust reading strategies based on ongoing informal assessments of your students?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. To what extent can you provide specific, targeted feedback to students’ during oral reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. How much can you do to meet the needs of struggling readers?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. To what extent can you adjust writing strategies based on ongoing informal assessments of your students?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. To what extent can you provide your students with opportunities to apply their prior knowledge to reading tasks?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. To what extent can you help your students monitor their own use of reading strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. To what extent can you get students to read fluently during oral reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. To what extent can you model effective reading strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. To what extent can you implement effective reading strategies in your classroom?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. To what extent can you help your students figure out unknown words when they are reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. To what extent can you get children to talk with each other in class about books they are reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. To what extent can you recommend a variety of quality children’s literature to your students?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. To what extent can you model effective writing strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. To what extent can you integrate the components of language arts?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. To what extent can you use flexible grouping to meet individual student needs for reading instruction?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. To what extent can you implement word study strategies to teach spelling?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. To what extent can you provide children with writing opportunities in response to reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. To what extent can you use students’ writing to teach grammar and spelling strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. How much can you motivate students who show low interest in reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. How much can you do to adjust your reading materials to the proper level for individual students?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix D.

Teacher Sense of Efficacy for Literacy Instruction for Struggling Readers Scale (TSELI-SR)
## Teacher Sense of Efficacy for Literacy Instruction of Struggling Readers (Adapted from TSELI scale)

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) “None at all” to (9) “A Great Deal” as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

<table>
<thead>
<tr>
<th>Question</th>
<th>None at All</th>
<th>Very Little</th>
<th>Some Degree</th>
<th>Quite A Bit</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent can you use a struggling readers oral reading mistakes as an opportunity to teach effective reading strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. To what extent can you help struggling readers monitor their own use of reading strategies?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. To what extent can you get struggling readers to read fluently during oral reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. To what extent can you implement effective reading strategies for struggling readers in your classroom?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. To what extent can you help struggling readers figure out unknown words when they are reading?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. To what extent can you implement word study strategies to teach spelling to struggling readers?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. To what extent can you use students’ writing to teach grammar and spelling strategies to struggling readers?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. To what extent can you integrate the components of language arts to meet the literacy instruction needs of struggling readers?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. To what extent can you recommend a variety of quality children’s literature to your students who are struggling readers?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. How much can you do to adjust your reading materials to the proper level for struggling readers?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. At my school the quality instructional resources available for my use is adequate to meet the literacy instruction needs of my students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. At my school the quality of instructional resources available for my use is adequate to meet the literacy instruction needs of struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. At my school the variety instructional resources available for my use is adequate to meet the literacy instruction needs of my students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. At my school the variety of instructional resources available for my use is adequate to meet the literacy instruction needs of struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Throughout my career I have amassed an adequate amount of quality instructional resources to meet the literacy needs of students in my classroom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Throughout my career I have amassed an adequate amount of quality instructional resources to meet the literacy needs of struggling readers in my classroom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. At my school site there is adequate collegial support in place to assist me as needed to meet the literacy instruction needs of struggling readers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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Appendix E.

Invitation to Participate in Research
Recruitment Letter

The following letter provides information regarding a study currently underway that you may have an interest in participating in. After reading the following information about the study, if you wish to participate please contact the principle investigator either by phone or email, and a questionnaire with complete study details will be provided to you.

TITLE: An Exploration of Teacher Efficacy for the Literacy Instruction of Struggling Readers

PRINCIPAL INVESTIGATOR: Julie Sture, Graduate Student, Faculty of Education, Simon Fraser University (604-996-8182, or jsture@sfu.ca)

SUPERVISOR: Dr. Maureen Hoskyn, Associate Professor, Faculty of Education, Simon Fraser University

INVITATION TO PARTICIPATE IN RESEARCH: You have been invited to participate in this study, as you are a teacher that is responsible for the provision of literacy instruction for students between grades K-7. The following information is provided to help you decide whether you wish to participate in the present study. Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without consequence.

STUDY PURPOSE: The aim of this study is to examine the nature of the relationship between a teachers’ general sense of self-efficacy for teaching and their self-efficacy for literacy instruction, as well as the relationship between a teachers’ general sense of self-efficacy for teaching and their self-efficacy for literacy instruction of students with reading difficulties. The second purpose is to extend current knowledge about the factors that mediate teacher efficacy for literacy instruction and teacher efficacy for literacy instruction of students with reading difficulties.

PROCEDURES: If you choose to participate, you will be provided with a questionnaire, which contains questions that will ask about your feelings regarding your self-efficacy for: teaching in general, literacy instruction, and the literacy instruction of students with reading difficulty. Questions will also inquire about your teacher education, past teaching experiences, professional development experiences, and current teaching environment. Please respond to all questionnaire items that you are comfortable answering. Responses are to be recorded directly on the questionnaire. The questionnaire will take approximately 20 minutes to complete. Once completed please return your questionnaire to the primary researcher by placing it in the pre-addressed and stamped envelope provided to you. Data collected for this study will be collected one time only via the attached questionnaire. You will not be contacted for further research, and the data collected will be used only for this study.

Thank you for your time and interest, I look forward to hearing from you.

Julie Sture,
Principal Investigator

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