

Struggling Readers, Capable Learners:
Literacy Development for Middle Years Students

by

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Project Submitted in Partial Fulfillment
of the Requirements for the Degree of

MASTER OF EDUCATION

In the Area of Middle Years Language and Literacy

Department of Curriculum and Instruction

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Abstract

This project provides a synthesis of what is known about the challenges, lived experience and potential of struggling readers in middle school. This group of adolescent learners, sometimes called “treatment resisters” in the literature, often has been viewed from a deficit perspective and frequently has experienced unsuccessful remedial interventions to address their difficulties with the decoding and comprehension of text. Teachers require information about this complex, multi-faceted problem in order to participate effectively in developing solutions for this group of at-risk students. This project includes three components: a review of the literature that is foundational to this topic, a PowerPoint presentation with accompanying activities designed for middle school teachers and a rationale on the nature and design of the PowerPoint.

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Acknowledgement

I would like to thank my own “struggling readers”, my husband and son, both of whom have persevered and won their own battles with text. It is because of the path I have walked with both of them and the celebration of their successes in life that I developed a passion for working to have those same successes for my students.

I would also like to recognize the contribution of Tammy Renyard, former School District Literacy Coordinator for School District No. 79 – Cowichan Valley. My profound respect for her capacity to care about her struggling secondary readers has been the underlying inspiration for every professional development opportunity I have undertaken to support my own students.

To the students whose journeys I have shared so far, I would like to express my unqualified admiration for the work you do, the perseverance you demonstrate and the humour and brilliance of mind that you have shared with me. In particular, I will never forget my “Bonner Boys” whose enthusiasm for literacy learning has been the moment that I try to recapture with every student I teach.

Lastly, I would like to thank Drs. Alison Preece, Deborah Begoray and Sylvia Pantaleo for providing learning opportunities that I will never forget and whose wit and wisdom I have enjoyed and admired.

Dedication

This project is dedicated to my family. To my children, Derrien, David and Wade: the lessons I learned from being your first literacy teacher have been my life's joy and inspiration. The books and discovery we have shared together are the foundation of every lesson I teach and any wisdom I may have. To my husband, Howard: your patience and support throughout our shared life so far is the rock I stand on. I could never have done this without your help.

Chapter 1

Introduction

Background: A Personal and Professional Journey

As a parent of a child who meets the British Columbia Ministry of Education (2011) criteria for both Giftedness and Learning Disability designations, I am well aware of the challenges that must be overcome by struggling readers at school. My greatest concern for my own son has always been that he has the opportunity to fully develop his intellectual capacity and the love of learning that he showed from his earliest moments. I have, over the course of his education, appreciated the expertise of many of his teachers and watched the struggle to understand on the part of others. On many occasions, I stepped in as his advocate to ensure that he was positioned as a capable learner in his classroom and received the accommodations that he both required and was entitled to. My fascination with the topic of struggling readers is founded on this experience. In particular, I wanted to know if the various ways we supported him were reflected in the work of literacy experts. His mastery of the skills that underlie the literacy privileged in schools occurred slowly and as a result of the support and encouragement he received both at home and, less consistently, at school. He is now at the end of his public education experience and about to embark on his post secondary education with many academic, psycho-social and cognitive strengths at his disposal. I know he is stronger for surviving this battle.

I hold an undergraduate degree in Child and Youth Care and I have a longstanding interest in the provision of psycho-social support and the examination of problems through multiple theoretical lenses. I have worked as an elementary and middle school Special Education teacher for the past nine years. As a result of this journey, I have developed a number

of foundational beliefs about the nature of literacy development, the need to identify and appreciate the strengths within each individual and the opportunities that an expanded definition of literacy holds for all students. Most importantly, I believe absolutely I cannot teach reading without teaching thinking. I have also felt continually challenged with respect to my own skills and knowledge as a teacher of struggling learners. As a literacy teacher for students with low incidence disabilities, I came to understand the unique capacities for thinking, learning and enthusiasm for literacy that even our most challenged students possess, in spite of having few, if any, of what have traditionally been viewed as literacy skills. When I began to teach learning assistance in a middle school several years ago, I was, quite honestly, shocked by the lack of support and instruction some of these very capable thinkers had experienced. However, I was most alarmed by their discouragement and the lack of confidence they had in themselves as learners. My purpose is to change this outcome for as many students as I can.

Purpose of this Project: Synthesizing the Personal and Professional

My intention when I undertook this project was to create a synthesis for myself between my lived experience as the parent of a child with a reading disability and as a teacher of children who struggle with reading. It is likely that most teachers have aspects of their personal lives that enrich their professional lives. That has certainly been the case for me. The research I examined for this project has resonated for me on many occasions and sparked my derision on others. I believe that one of my most valuable assets as a teacher of students with reading difficulties has been to be the wife and parent of my own struggling readers. This personal experience has equipped me with the knowledge that a child can be both a struggling reader and a gifted thinker. Both my husband and my son have had psycho-educational assessments that outlined these aspects of their learning profiles and this information empowered them to persist in believing in

themselves. As a parent, I was most surprised about my son's experience at school as he experienced the same kind of lack of awareness and support that had existed for his father 30 years earlier. As a teacher, I have been profoundly concerned by not only the lack of educational and professional development opportunities available to teachers, but also, and most importantly, by the very narrow view of what a capable learner looks like. Too often, my students who struggle with reading have arrived in my learning assistance classroom believing they were "dumb and lazy."

Significance of the Project: Formulating a Plan for Action

In the context of this project, my intention is not to present myself as an expert. My interest is in sharing the information I found while researching this problem from a multidisciplinary and thematic perspective. Many of my ideas have been confirmed, others discarded, but most surprisingly, I discovered that there is much agreement about a course of action for these students. I hope that by sharing what I have learned about the characteristics, experience and strengths of these students from this multidisciplinary body of research, other teachers will be helped to formulate effective plans to support these students.

Nature and Design of the Project: Sharing a View Through Multiple Lenses

My project is underpinned by a literature review that examines a variety of perspectives on the characteristics, experience and emerging capacities of students who continue to struggle with reading in middle school. Through a review of foundational works related to the support of struggling readers, particularly those of Joseph Torgesen, Bennet Shaywitz, Sally Shaywitz, and Sharon Vaughn, all of whom are recognized experts in aspects of this issue, I wanted to understand what scholars with a longstanding interest in this area had discovered and discussed. However, the vast body of research available offers contributions by an enormous number of

researchers in a range of related areas of interest. These individuals have asked interesting, thought-provoking questions about pieces of this puzzle and have amassed a formidable body of knowledge.

Consequently, one of my challenges was to identify themes in this body of research and summarize topics within those themes in the foundational works, as well as to represent emerging knowledge or questions in newer research. In fact, a fairly consistent theme within research relating to struggling readers involves the positing of questions whose answers will likely considerably alter what are considered best practices with respect to the education of these students. Several other interesting themes also emerged. As well, a number of fields of enquiry can logically contribute insight into the support of struggling readers. In particular, it was surprising to find that educators and cognitive psychologists, although they have many areas of mutual interest, do not tend to cite each other's work. As well, significant areas of disagreement exist among researchers with respect to how students with reading issues should be supported.

One of the topics that I encountered caused me to revise my original purpose and focus on the idea of developing a synthesis of research that I would be able to share within professional learning communities in my school district. The paucity of research into the development of teacher's knowledge and capacity for working with struggling readers intrigued me for several reasons. Most importantly, I have noticed that the same issues with respect to teachers' awareness of learning issues, of providing classroom adaptations and of understanding the potential capacity of struggling readers have endured overtime. Overall, many commonalities have been evident between my son's current educational experience and my husband's which occurred some 30 years earlier. Both have had their trials with being viewed from a deficit perspective because of challenges with decoding and encoding skills, in spite of having verbal

comprehension and perceptual reasoning scores within their psycho-educational testing that were in the gifted range. These commonalities have included frequent grouping according to skills level in elementary years, which many researchers have been very critical of, a narrowed access to programs as students move through the grades, and difficulty securing adaptations and accommodations outlined in psycho-educational assessments. I have never seen these issues as a reflection of teacher commitment to their struggling readers. Rather, it was evident to me as a parent that many teachers struggled themselves to operationally define and implement effective teaching and support strategies.

When I became a teacher myself, I began to understand this problem from another perspective. My undergraduate education program had only one Language Arts methodology course contained in it. My solution to this lack of capacity in my own teaching repertoire has been to pursue as much professional development in the area of literacy education as I could. Many of these valuable opportunities have occurred because of a teacher's desire to share what he or she has learned and to collaborate with others to increase our collective capacity. Every one of these opportunities has enriched me and made me a better teacher. The design of this project is intended to be my contribution to this body of work.

Additionally, some researchers have identified that teachers may not be comfortable with the opportunities available within multimodal design. I have chosen PowerPoint presentation software because it is user friendly, and it facilitates the use of the Internet for access to a number of web-based resources that can support the concepts presented in text and speech throughout this presentation in a visual manner. For many of us, this privileging of literacies other than text may stretch our comfort levels. We may be less familiar with web-based resources, such as YouTube or Dictionary.com. In contrast, our technologically-savvy middle

years students have been described by Prensky (2001) as “digital natives” who are being raised in this environment as opposed to the older generation of “digital immigrants” who have had to learn these skills later in life. Thus, this format was chosen in order to disseminate information in a logical, sequential order, but also to allow a glimpse of the multimodal, simultaneous processing environment that our students live in. I hope that by using some of these web-based resources, teachers unfamiliar with them or less-accepting of their genuine value, may see new opportunities in their own practice.

With respect to other aspects of design, I have chosen to provide a flavor of the literature, which embodies key ideas from important figures and new ideas in the field, in order to share the wisdom I found in the authors’ words. At the same time, I prepared a detailed document outlining particular speaking points that serve as both a summary of points I wish to add, as well as a description of each activity that I have incorporated. In essence, I want this presentation to incorporate complex text, interesting visuals and compelling audio experiences that give life to the ideas from the research.

As a profession, teachers have an aggregate of expertise that is based on their personal and professional experience. I believe that we do not have nearly enough opportunity to explore the capacity that exists within our professional learning communities. We need ongoing opportunities to connect with and validate or critique ideas that emerge from research in order to integrate these ideas in meaningful ways. This project presents key ideas from the research to date. It seeks to explicate the situation of struggling readers in today’s classrooms and provide, not only an alternative view of these students, but also strategies that can be implemented by classroom teachers to support their continued literacy development. I provided a rationale for reconceptualizing these learners as capable, but disconnected literacy learners by connecting

their experience with multiliteracies and the work of motivation theorists. At the same time, I have provided only a brief introduction to multiple literacies pedagogy. Because of its complexity and, particular, its challenging metalanguage, a detailed discussion of multiliteracies is beyond the scope of the time allotted for this presentation. I have justified the latter by including a link to the full document entitled “A Pedagogy of Multiliteracies: Designing Social Futures (New London Group, 1996) after describing it briefly. By understanding the characteristics and experience of struggling readers, identifying areas of emerging capacities and reconceptualising their issues within a framework of multiliteracies, teachers will be in a better position to assist these students with their continued development as capable and lifelong literacy learners.

Limitations of the Project

The learning and ideas shared within this project represent only a fraction of those available on this topic within academic journals. These journals represent many voices and an enormous fund of knowledge that is available to educators. Each theme I have identified is underpinned by an extensive body of research and I have selected ideas from these works to share that resonated for me. My hope is that this expression of my teaching autonomy and the decisions I have made will have some value to other teachers who share my concern for the struggling readers we teach. It is our combined effort and wisdom that will assist these students to be successful and empowered learners.

Overview of the Project

Chapter 1 has provided an overview of both the reasons for my interest in the topic of struggling readers in middle years and an outline of the framework through which I have addressed this topic. Chapter 2 summarizes the key ideas in the body of literature that underpins

what is known about these students. It explores factors underlying reading difficulties and their identification, the nature of student experiences with remediation strategies and service delivery models, and the maturational changes that occur during early adolescence and their significance to literacy education. It also develops a rationale for viewing these students through alternative theoretical lenses and supporting their continued literacy development through multiliteracies pedagogy. Chapter 3 reviews the purpose of the project and reflects on its impact on practice. The Appendix provides speaking points that address and support the content of each slide with in the accompanying PowerPoint presentation.

Chapter 2

Literature Review

This chapter provides a review of the literature relevant to the understanding of the challenges, lived experience and potential of struggling readers in middle school. It examines the factors underlying reading difficulties, how students may be identified, remedial strategies and settings that may have been used, as well as factors such as ongoing cognitive development and the role of motivation. It explores a reconceptualization of these readers as capable learners and a pedagogical framework that can be used to support this view.

A vast body of research documents the experience of students who struggle with reading. If this difficulty with reading persists into their middle years in school, students face a challenging and complex task in the effort to improve their ability to access grade level text and, more importantly, to the curriculum. Struggling middle school readers can present with a variety of difficulties with skills that are integral to the process of reading such as those involving “phonological awareness, word recognition skills, decoding ... reading fluency and ... reading comprehension” (McCray, Vaughn & Neal, 2001). These difficulties often have been present since their earliest days of reading instruction and can translate into profound difficulty accessing curriculum materials for their grade. By middle years, the resulting gap can be substantial and remediation strategies often have limited effectiveness (Torgesen, 2002). However, an examination of aspects of reading skill development is not sufficient to understand this life-limiting problem. It is also necessary to identify and integrate the multiple lenses provided by other fields of research that can contribute to our understanding of the development of literacy for students who are challenged by their interactions with printed text. My purpose in this project was to review the current literature on the challenges, lived experience and potential of

struggling readers in middle school in order to identify how classroom teachers can support the continued development of literacy for these students. Teachers require information about this complex, multi-faceted problem in order to participate effectively in creating solutions for this group of at-risk students.

Factors Underlying Reading Difficulties

In the past, the terms “reading and writing” have been used synonymously with that of literacy and have meant the capacity to access print for the purpose of both decoding and encoding. Difficulty with reading has a number of labels within the literature, including dyslexia, specific reading disability, reading disability (RD) or learning disability (LD) (BCASP, 2007; Aaron, Joshi, Gooden, & Bentum, 2008; Shaywitz, Morris & Shaywitz, 2008; Reynolds & Shaywitz, 2009). These labels are often applied whether or not students have received a diagnosis by a registered psychologist. Gough (1996) identified what he called a “simple view” of reading that identified the two skills of decoding and comprehension. This reductionist view of reading has value as an explanation of the two areas in which a student’s reading can fail. Specifically, students require both the correct identification of words, as well as adequate vocabulary and topic knowledge to read effectively.

Aaron, Joshi, Gooden and Bentum (2008) summarized three sources of evidence for viewing these two components separately. These included experimental studies that demonstrated the relative independence of word recognition and listening comprehension, neuropsychological studies that showed both individuals who could pronounce words, but not comprehend them as well as the opposite effect and magnetic resonance imaging that showed activity in different cortical structures and finally developmental studies that examined students with both dyslexia and hyperlexia that showed comparable results. Aaron et al. concluded that

their review of the literature demonstrated that word recognition and comprehension are separable and suggested that struggling readers are not a homogeneous group. The lack of homogeneity in reading difficulties requires not only accurate assessment of each individual, but also a range of responses based on the intensity and duration of the problem. This view of reading underlies the belief that a struggling reader is one whose reading skills do not fall within expected norms and that reading achievement can be measured by comparison to a larger group.

Shaywitz, Morris and Shaywitz (2008) further described the difficulties faced by struggling readers as being most commonly based on a phonological weakness or specifically a difficulty with the systematic use of sounds to encode meaning. This problem is often evident in the speech, reading and writing of affected individuals, which suggests that struggling readers will also be struggling writers. By middle years, some learners will have compensated for this weakness through memorization and thus, these difficulties can be much more subtle and difficult to detect. As a result, Shaywitz et al. believe that in addition to difficulties with reading words and comprehension, the inability to read fluently must also be seen as a disability issue. On many occasions, students who struggle with reading are often missed in a regular classroom and do not receive support for this serious issue in their reading ability that can become more problematic as curricular demands increase.

Torgesen (2000) identified another aspect required within a comprehensive assessment of reading difficulties: the assessment of the individual's learning profile. Torgesen (2000) defined the goal of reading education in elementary years as ensuring that children have the "ability to comprehend or construct the meaning of what is being read at a level consistent with their general verbal ability" (p. 55). By this definition, a struggling reader is one who is unable to read at a level that is commensurate to his or her verbal skills. This more individualized view

of reading achievement points to two important ideas. Firstly, all classrooms will be heterogeneous with respect to student abilities to decode and comprehend text. Secondly, student capacity for reading achievement must be considered on an intrapersonal level. While individual assessment of a student whose reading achievement falls outside of widely held expectations is generally viewed as necessary, it is also important for teachers to be aware of other concerning scenarios. Some students who appear to be meeting expectations for reading may, in fact, be unable to navigate text in a manner that is commensurate with their cognitive ability. Consequently, while the definition of a struggling reader can be conceptualized in terms of mastery of specific skills, it must also be viewed through the lens of cognitive capacity as well.

Torgesen (2002) has also suggested that we know “the instructional conditions that need to be in place to prevent the development of reading difficulties in all but a very small proportion of children” (p. 8.) He cited extensive research that outlined how challenges with reading affect vocabulary growth, attitudes and motivation to read and leads to overlooked opportunities to develop comprehension strategies. Most concerning, however, was the suggestion that students who struggle with reading at the end of first grade almost never acquire average levels of reading fluency (Torgeson, 2002, p. 8). Torgesen’s ongoing research in the area of early reading intervention contributes to the discussion of struggling middle years readers in several ways. Firstly, it suggests that difficulties in reading can be the result of poor reading instruction. Secondly, it also identifies the reality that some students will continue to struggle in spite of good instruction in reading. Perhaps most importantly, however, it provides a discouraging picture of what lies ahead for students who are difficult to remediate. These “treatment resisters” (Torgesen, 2002) are the students whose needs must be addressed most urgently in middle years

classrooms. The lack of homogeneity in their underlying difficulties and issues requires careful and individual consideration before a plan for successful remediation or compensatory strategies can be formulated. Thus, teachers of these students must have an awareness of not only problems in skills development, but also of the affective dimension of this complex problem.

Another important area within the field of reading disability research deals with the comorbidity of reading difficulties with other developmental issues, such as Fetal Alcohol Spectrum Disorder or Autism Spectrum Disorder. One of the most common of these is Attention Deficit/ Hyperactivity Disorder (ADHD). Many studies have identified a relationship between AD/HD and reading disabilities (Rutherford, DuPaul, & Jitendra, 2008). Masetti et al. (2008) further suggested that students identified as having AD/HD inattentive subtype might be better described as learning disabled and that their inattentiveness might be a secondary disability related to learning issues. Wilcutt, Betjemann, Pennington, Olson, DeFries and Wadsworth (2007) discussed the ramifications of the relationship between AD/HD and reading disability which included its stability over time and the difficulty it presents to older students as they enter the less structured environments of middle and secondary schools. Perhaps most importantly, however, Wilcutt et al. commented on the prevalence of both reading disabilities and AD/HD in school populations and identified the need for ongoing professional development for teachers to ensure the effective support of these students.

Clearly, the factors that underlie reading difficulties are complex, as is developing an integrated view of the multiple lenses through which this problem can be viewed. The common feature of the ideas presented here is their description of struggling readers from a deficit perspective which posits that these readers are in some way deficient or lacking a necessary component of a successful learner. This view is enormously problematic as many students with

reading disabilities are capable thinkers who, although they find reading to be a difficult and ongoing challenge, are cognitively capable of accessing their grade level learning outcomes. While I have not provided an exhaustive study of the factors underlying reading difficulties, the review does highlight a number of the key areas of challenge for students that teachers must be aware of. These issues are foundational. Teachers cannot assume that the reading capacities in their classroom will be homogeneous. Reading disabilities can coexist with other challenges that compound and confound remedial efforts. Most importantly, teachers need to know when to involve a learning support teacher and advocate for further assistance for and formal assessment of these students.

Identifying Readers Who Struggle

Aaron, Joshi, Gooden and Bentum (2008) pointed out that problems with reading among children who were apparently intelligent have been recognized for almost 100 years. Recently, as a result of research that shows how poor reading skills diminish students' life chances (Torgesen, 2002), many studies have focussed on the identification of students who struggle with reading disabilities. Two particular identification models predominate the literature; the IQ-Achievement Discrepancy Model and the Response to Intervention Model. The purpose of both of these models is to identify and support learners who struggle with the acquisition of academic skills.

The IQ-achievement discrepancy model.

Many authors have examined the relationship between measured cognitive ability (a student's IQ score) and reading. Students who are poor readers span almost the full range of intelligence, but predominantly fall within the average range. The term "learning disabled" can be applied to students who struggle with academic skills based on criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders IV (intelligence quotient tested above 70

and achievement significantly below this score) (Kortteinen, Narhi, & Ahonen, 2009). This commonly applied definition of a learning disability is known as the IQ-Achievement Discrepancy Model.

The IQ-Achievement Discrepancy model has been called into question by many authors for a number of reasons. Jiminez, Siegel, O'Shanahan and Ford (2009) found that the relationship between IQ and reading level was not significant except with respect to orthography. These authors also stated that, regardless of an IQ score, poor readers read poorly and, thus, require remedial attention. Kortteinen, Narhi and Ahonen (2009) also examined the role of IQ in reading difficulties and found that it is not associated with word reading, text reading or rapid automatised naming. They identified other subskills to reading that are linked to IQ. These subskills, vocabulary and strategic skills, are associated with reading comprehension. Another study in this area pointed to the fact that IQ did not allow for a distinction to be made between impaired readers and normal readers and between impaired readers who were difficult to remediate and impaired readers who were readily remediated (Vellutino, Scanlon, & Lyon, 2000).

In spite of these criticisms of the relevance of IQ, the role of cognitive ability remains important with respect to struggling readers. In a recent longitudinal examination of the relationship between measured cognitive ability (or IQ) and reading, Ferrer, Shaywitz, Holahan, Marchione and Shaywitz (2010) found evidence that readers could be separated into three distinctive groups. Examining students first in Grades 2 or 4 and later in Grades 9 or 10, they found that typically developing readers showed a strong correlation between cognitive and reading ability that endured over time. They noticed and became interested in the differences between two groups of students who struggled with reading in primary grades. Ferrer et al.

identified two subgroups: those impaired readers who compensate and eventually become proficient readers, and those impaired readers whose difficulties persist. Further, they found a dynamic interrelationship between reading and IQ over time. Typical readers showed consistency between measured IQ and reading scores which was relatively constant. However, both groups of struggling readers showed less of a relationship between these two measures over time in that struggling readers saw a decrease in their full scale IQ over time, with this effect magnified for the persistently struggling group. These researchers hypothesize that since struggling readers actually read less, their acquisition of vocabulary and worldly knowledge, both of which have an effect on measured IQ, are impacted over time.

The response to intervention model.

As a result of the criticism generated by the IQ-Achievement Discrepancy Model, other ways of identifying and supporting struggling readers have been developed. Perhaps the most widely discussed alternative is that of the Response to Intervention Model (RTI). Originally outlined in federal legislation in the United States as a model of early service delivery for children at risk of school failure, it seeks to prevent academic skills deficits, particularly in reading, through a number of tiers or levels of support that are based on empirically-validated instructional strategies (Barnett, Daly III, Jones, & Lentz Jr., 2004). All students are monitored for their response to reading instruction and interventions are applied when a student has not responded to that instruction.

While the model has received the vigorous support of many authors (BCASP, 2007; Fletcher & Vaughn, 2009) as an intervention for students in early grades, its value to older students is questionable. Key proponents of RTI as an early intervention, Vaughn et al. (2010) found that it had limited capacity to close the achievement gap between typical readers and those

who received Tier 2 (targeted to smaller groups of individuals shown to be at-risk) support in Grade 6. It is logical to consider that this level of support might be insufficient as these students have likely already been the recipients of extensive intervention. Reynolds and Shaywitz (2009) summarized many of the criticisms of this model, including the lack of guidance provided to teachers with respect to implementation, its inadequacy as a means of diagnosis, its weak experimental base and that it is, in fact, another discrepancy-based model of performance of an individual is compared to that of peers.

A comparative view of these models.

The literature documents the contentious and contradictory nature of this ongoing debate. These two models for identifying struggling readers and their concomitant bodies of research are important to the understanding of students who struggle with reading. Both provide valuable lenses through which the complexity of the situation of a struggling reader can be viewed.

Reynolds and Shaywitz (2009) offered a compelling argument for the continued use psycho-educational testing as an early diagnostic tool. They expressed the concern that “RTI as a diagnostic tool, lacks not only in diagnostic coverage and validity, it also provides few clues guiding what to do as far as instruction is concerned after a child fails to respond” (Reynolds & Shaywitz, 2009, p. 139). One of the most important features of a psycho-educational assessment is an understanding of the student’s cognitive profile. Understanding the cognitive capacity of each student is in keeping with Torgesen’s (2000) view that it is essential to know when a student’s achievement is not commensurate to his or her cognitive ability. In order to understand whether a gap between cognitive ability and reading achievement might be present, a tool as simple as a composite test of reading (i.e. word recognition and comprehension) compared to a test of listening comprehension can identify if further assessment might be required.

At the same time, there are concerns related to relying on psycho-educational assessment to explain or describe reading difficulties. McIntosh et al. (2011) identified a number of concerns with respect to these assessments that included the following: difficulty recognizing students who could benefit from short-term interventions versus those with true disabilities; cultural bias; a lack of effective instructional recommendations; a “wait to fail” approach that allows for a severe gap to develop before remediation occurs; a focus on within-child deficits versus instructional deficits and an “all or nothing” approach that identifies and provides support only for those students with large discrepancies between IQ and achievement. Often, in practice, there is no additional support for students who are identified as having a learning disability. Designated students in B.C. find themselves in an unfunded Special Education category that does not provide access to further remedial or technological supports beyond what is available to all students. Thus, students who have been identified as being in need of a scribe or reader, for example, often do not have access to those supports on a routine basis at school.

In my own view, RTI has both advantages and disadvantages. The chief benefit of RTI is as a solution-focused method to identify and support students in the early days of reading. Although proponents of this model recommend the use of empirically-supported interventions, the latter require teacher capacity and resources that may not be available. I also believe its use of comparison of the individual to cohort achievement (rather than a normed sample) is problematic. This method does not account for underachievement of a highly intellectually capable child whose reading level does not demonstrate the quality of his or her thinking or allow high-level access to concepts that could be easily understood. I also believe that this model offers little protection for those students whose intellectual capacity cannot keep up with

the expectations of grade level learning outcomes and who require appropriate adaptations and modifications to curriculum.

This comparative discussion of the relative merits of psycho-educational assessment versus RTI is most often presented in the literature as being dichotomous. In fact, the B.C. Association of School Psychologists (BCASP) formulated best practice guidelines with respect to the integrated use of both models. This organization “contends that a good assessment based on information collected from a variety of test and non-test sources and augmented by clinical judgement, will focus on identifying the primary causes of the difficulties and the most appropriate forms of intervention” (BCASP, 2007, p. 18). These guidelines set out the essential components of RTI and advise psychologists to consider recommending some features to schools. At this time, BCASP continues to support the use of psycho-educational assessment as an essential piece of support for students who are difficult to remediate.

Within their guidelines document, BCASP (2007) also noted the importance of screening academic performance and behaviour for all students in order to determine the services that students require. In order to consider whether a learning disability diagnosis is appropriate, the learning challenges experienced by a student must not be able to be accounted for by other conditions, such as global developmental delay, environmental factors, such as deprivation or abuse, or finally, cultural or linguistic diversity (BCASP, 2007).

Issues not identified in the literature.

While the debate continues, there is little discussion in the literature about students who continue to struggle with reading and who have not received either the specific remedial strategies outlined in the RTI literature or a psycho-educational assessment. As these students enter middle years, often their skills gap has grown to a point where students can no longer

access the reading material that they are presented with on a daily basis. With uncertainty with respect to the instructional strategies that have been used and without information about the students' learning profile provided by a psycho-educational assessment, students whose challenges with reading have persisted are at risk not only with respect to their school results, but also their life chances.

In the current climate of restraint, my observation has been that far fewer students are able to receive testing from school districts. At the same time, because of the B.C. government's passage of Bill 33, which deals with class composition and places a limit on the number of students with identified special needs in classrooms, school districts may be reluctant to identify students as learning disabled. Other students may have failed to meet the discrepancy criteria and may not necessarily receive Special Education services that include an Individual Education Plan, learning assistance and specific adaptations to support their progress towards graduation despite evidence that support is necessary. Thus, teachers must contend with the fact that both identified and unidentified struggling readers may be present in their classrooms.

Experiences with Remediation

By their middle years in school, students who continue to struggle with reading have, as a group, typically experienced many attempts at remediation of their difficulties. The literature documents a confusing plethora of programs designed to improve specific aspects of reading, as well as more comprehensive plans. The vast majority of these articles focus on the prevention of and early intervention in response to reading failure.

Issues in early intervention.

Torgesen (2000) provided a clear framing of the importance of early intervention stating that improvement of reading skills offers many opportunities to continue to practice as reading

progresses. He reviewed the data from five studies to examine the problem of treatment resistance by students following intensive support for word identification difficulties in early primary. One of the interesting ideas within Torgesen's analysis was that word reading difficulties for primary students with both low general intelligence and those with average or high intelligence were predominantly based on problems that were phonological in nature. Through his comparison of the five studies, Torgesen determined that, in spite of intensive and specific support that is not generally available in public education, some students continue to experience difficulty. He also noted that it is not yet known what can be done through early intervention to have these students become successful readers.

In an effort to support the effective selection of early intervention programs, Slavin, Lake, Davis and Madden (2010) conducted a meta-analytic review of achievement outcomes related to programs designed to support struggling readers in Kindergarten to Grade 5. A number of key findings emerged from this review. One-to-one tutoring by teachers with a focus on phonics was found to be highly effective. If this effect was to be maintained, ongoing classroom interventions had to be provided as well. While small groups were found to be effective, they were not as valuable as one-on-one instruction. Particular classroom instructional processes (cooperative learning and the use of structured phonetic models) were found to be very helpful to all students, but especially those low-achieving students. The use of instructional technology programs was not an effective means to improve reading. Most importantly, however, these authors provided a detailed list that rated the strength of effectiveness of available programs, identified which of the effective practices were included in those programs and provided a source for further information about each.

While many interventions focus on identification of reading issues in Grade 1, it has been pointed out that some readers begin to struggle towards the end of their primary years. This issue is often labeled in the literature as the fourth grade slump and it has been the focus of a number of researchers who were interested in difficulties with the increased demands of comprehension at this stage of reading (Duke, 2004). Wooley and Hay (2011) identified an intervention gap that exists beyond the third grade in spite of the fact that a significant number of students continue to struggle and they advocated for continued research to explore this problem. In addition to this concern, research addressing the question of whether early gains can be maintained represents a concerning gap in the literature given the number of readers who are identified as struggling in later grades.

The issues outlined in this section are not exhaustive. However, they are representative of concerns voiced in the literature regarding the efficacy of early intervention. Most concerning however, is the idea that being a struggling reader at the end of primary grades consigns these students to unremitting difficulty, not only for the remainder of their years at school, but also as they navigate the literacy requirements of adult life in world where literacy demands have increased dramatically in the past 100 years.

Later intervention efforts.

The students whom Torgeson (2000) called “treatment resisters” are those readers who continue to struggle in middle years classrooms. Although the literature reflects a growing interest with respect to addressing the needs of these readers, as Wooley and Hay (2011) pointed out it does not approach the amount of attention that early intervention has garnered. These intervention efforts continue to be fragmented and tend to be issue-specific in their focus.

Allington and McGill-Franzen (2009) reviewed the results of many studies that looked at the issue of struggling older readers and reiterated that students who experience reading difficulties

after the primary years are a heterogeneous group that includes students who are poor at decoding, those who are poor at comprehending and those who experience difficulty with both. They also concluded that too few studies have examined how struggling readers manage text in authentic classroom situations versus short comprehension activities designed to evaluate their reading levels.

Further, Allington and McGill-Franzen (2009) pointed out that many studies of remediation strategies examined single interventions used over a short time frame or simply the use of a single strategy. In this respect, these studies do not offer a clear solution that addresses the needs of struggling readers over the course of their years in school. In fact, evaluation of the effectiveness of programs commonly used for middle and secondary students is noticeably lacking. Slavin, Cheung, Groff, and Lake (2008) completed a meta-analysis of programs designed to support the needs of these students. They found that not only are there few analyses available, but that of the programs examined, only a few were moderately effective with many of the remaining programs being relatively ineffective. Two issues raised by their meta-analysis stand out as major concerns: the need to improve the skills of classroom teachers, and the need increase the range of effective and rigorously evaluated remedial strategies available to teachers.

The effort to identify solutions for struggling readers has led to the development of many programs. Duke and Pearson (2002) pointed out that, while there has been much discord in the discussion around the effective teaching of decoding and word recognition skills, the efforts to improve comprehension have been much more cohesive in their underlying philosophy. Duke and Pearson summarized the research that began with a desire to understand what good readers do to comprehend and interact with text. The use of reading strategies instruction is now embedded in the professional literature and curriculum documents. As a result, there is an

expectation in the learning outcomes of many curriculum documents that students will be able to use strategies such as prediction, summarizing, questioning and accessing prior knowledge to comprehend text such as outlined in the B.C. Ministry of Education English Language Arts Integrated Resource Packages for Kindergarten to Grade 7 (2006) and Grades 8 to 12 (2007).

This facility with reading strategies has enabled even very young students to access big ideas that go far beyond literal comprehension of text. These strategies are accessible and useful to readers who have difficulty not only with comprehension, but also with word identification because of the importance that strategies place on contextual clues. The focus on identifying what it is that good readers do to access text is important when we consider potential directions for future research into the support of their less capable peers. Although there is an awareness that some struggling readers successfully master their reading difficulties, there is a lack of information in the literature to explain this phenomenon. Research that examines the experience of these students is required to support those who continue to struggle. What are the instructional conditions and strategies that have allowed these students to progress and become independent and capable readers?

Service Delivery Models

Over the course of time, a number of philosophical shifts have occurred with respect to how service is best delivered to middle years students who struggle with reading. Many further questions have arisen with respect to the efficacy and delivery of remediation programs. An important aspect of this debate involves the setting in which remediation should be delivered.

Reading resource rooms.

One option that has been the experience of many middle years readers is that of a reading resource room. This pull-out option, commonly defined as small group reading instruction in a

separate classroom in lieu of reading instruction in students' own classrooms, has received extensive criticism. In a study widely referred to in the literature, Bentum and Aaron (2003) spoke against the long term use of reading instruction in a resource room setting. This study examined the effects of placement and instruction using a pre-test and post-test comparison of IQ and reading achievement for two groups of students. The first group had received resource room instruction for three years and the second group received resource room instruction for two successive periods of three years. Results from this study showed that students experienced a decrease in verbal IQ and spelling skills when this strategy was used on a long term basis. Bentum and Aaron hypothesized that this finding was related to the failure of these students to maintain normal vocabulary growth within their small group. Rea, McLaughlin and Walther-Thomas (2002) examined LD-designated students in Grade 8 to determine the impact that setting had on social and academic gains of students placed in inclusive classrooms versus those placed in pullout programs. They reported findings in line with those of Bentum and Aaron and discussed various difficulties of resource room placement that included "lower expectations, uninspiring and restricted curricula focused on rote or irrelevant tasks, disjointedness from general education curricula and negative student attitudes from school failure and stigmatizing segregation (p. 204). These authors concluded that LD-designated students experienced more favourable outcomes in inclusive classrooms with respect to grades in core subjects, language and mathematics subtests, and attendance and performed comparably with respect to number of school suspensions and performance on state proficiency tests. In combination, these two studies advanced the important ideas that integration with regular achieving peers and work on meaningful tasks can provide a language model, both oral and textual, that is essential to their continued growth.

Teaching practices that students have experienced in reading resource rooms have also been the focus of research. Swanson and Vaughn (2010) have followed the instructional practices of teachers who work in resource room settings. In a small follow-up to their original study, they examined the impact of instructional content on a group of students using the Instructional Content Emphasis – Revised (ICER –R) to record and code the use of teachers’ reading instruction strategies. Swanson and Vaughn were able to identify some specific areas of overall instructional improvement, although a number of serious concerns remained, including limited use of instructional time for specific aspects of reading that were problematic for students, such as phonological awareness, and an emphasis on lower level comprehension activities. These findings are particularly concerning when examined in concert with the findings of other authors. Roberts, Torgesen, Boardman and Scammacca (2008) identified the following five areas of instruction that are essential to the successful remediation of older readers who struggle with below grade-level skills: instruction in word study, oral fluency reading, vocabulary development, reading comprehension strategies and extra support to maintain motivation. Clearly, many instructional situations that struggling readers have experienced have been less than satisfactory solutions to the widening gap that these students often experience.

Integration into regular classrooms.

However, integration into regular classrooms also presents challenges to struggling middle years readers. Manset-Williams and Nelson (2005) expressed concern that “there is little evidence that instruction in an inclusive classroom that does not include intensive tutorial, or even in traditional resource rooms, would equate to the gains made in a supplemental intensive reading intervention” (p. 70). One of the most interesting ideas discussed by these authors was that struggling readers require a very specific balance between direct instruction of

comprehension strategies and the more commonly used constructivist approaches to developing a repertoire of comprehension skills. This instruction involves more teacher talk, but they caution that too much teacher talk seems to interfere with the transactional nature of comprehension construction. Thus, it would certainly seem that these students would benefit more from some time in small groups to work on these skills and extra support within the classroom to mediate the constructivist process.

At the same time, some researchers have implemented and evaluated programs to support classroom teachers to develop classroom practice that assists these learners. In a small Canadian study, Lovett et al. (2008) conducted a preliminary evaluation of the effects of providing training and support for classroom teachers. They implemented a program called PHAST PACES that was specifically designed to assist high school teachers with the remediation of reading disabilities in their classrooms through the use of “metacognitive teacher training, cognitive coaching, long-term mentorship and collaborative learning” (Lovett et al., 2008, p. 1094). This study identified and posited a solution for a very significant issue. Teachers’ instructional repertoires have a huge impact on struggling readers; the learning gained through the professional development provided proved beneficial to both the teacher participants and their students. However, while many attempts have been made to provide in-service and professional development opportunities, it is still up to individual teachers to decide whether or not to participate in these initiatives.

Combined service model.

When the concerns related to these two models are examined together, it seems reasonable to develop a plan for students that includes elements of both. Holloway (2001) analyzed the results of five studies that “investigated models of inclusion compared to traditional

pull-out or combined models” (p. 86). He found that students made better progress in a combined model than in either a completely inclusive or resource room model. This approach is, in fact, consistent with recommendations within the report on adolescent literacy and older students with learning disabilities from the U.S. National Joint Committee on Learning Disabilities. This report states that students may “require sustained and intensive combinations of classroom instruction, remediation and accommodations that are individualized, explicit, systematic and relevant” (U.S. National Joint Committee on Learning Disabilities, 2008, p. 2). Although less clearly articulated, the BC Ministry of Education (2006) states a similar position about student entitlement to inclusion that is balanced with support to develop academic skills within pull-out programs. However, neither document specifically prohibits long term use of resource settings for reading instruction.

School-based teams often work to strike a balance that works for students in a combined service model. Within a Network of Performance-Based Schools study, Cassidy, Zibin and Robinson (2011) found that in-class collaborative teaching between a classroom teacher and a learning support teacher for 45 minutes on four days per week resulted in gains in reading achievement for students at all proficiency levels. Using strategy instruction in shared reading materials; independent, accountable daily reading of text at an independent reading level; and a program that developed orthographic knowledge, most struggling readers made similar gains in proficiency in comparison to their more capable peers. The authors hypothesized that the use of strategies and routines previously learned in a small group setting enabled struggling readers to join their classroom peers as capable learners and participate in tasks provided in an engaged, accountable manner.

Overall, it is apparent that struggling middle school readers have experienced a great deal of experimentation with respect to kinds of assistance they have received. Very few of the strategies have been examined through controlled external evaluation and some service models have persisted in spite of evidence that they were actually harmful to students. At the same time, action research projects, which are an accepted and integral part of professional learning communities such as the Network of Performance-Based Schools, may be of benefit to students, albeit insufficiently documented.

Maturational Changes that Affect School Experience

At the same time that systems within schools are creating change in an effort to support struggling readers, the process of physical maturation also exerts an impact on the minds of the minds of these students. Maturation change and the variability in the age of onset of that change are important issues in the education of young adolescents.

Cognitive development in early adolescence.

In the past, cognitive scientists developed many theories about the developmental processes of adolescence which were based on observation and inference. Technological advances in neuroscience now enable researchers to examine the relationship between observed adolescent behaviour and the physical maturation processes within the brain that can be seen through the use of magnetic resonance imaging (MRI). Like all adolescents, struggling middle years readers are embarking on a period of intense physical development which we now know involves significant brain growth and restructuring. These changes can create new challenges, but also new strengths. Kuhn (2007) briefly summarized what cognitive psychologists currently know about this process: “we do know that the requisite self-awareness and self-management – what cognitive psychologists are more likely to refer to as self-regulation or executive control –

do increase in the years between middle childhood and mid-adolescence” (p. 760). According to Choudhury, Charman and Blakemore (2008), the idea that brain development occurred beyond childhood is relatively recent one. Choudhury et al. (2008) summarized research that identified the developmental changes that occur in the brains of adolescents based on histological studies, as well as more recent advances made as a result of MRI. In particular, this field of research has shown the ongoing development that occurs in the cortex, particularly in the prefrontal and parietotemporal cortex which researchers now understand is involved in social thinking (understanding other minds), emotional processing and executive function (coordinating thoughts and behaviours). In early adolescence, there is a marked increase in the proliferation of synapses (or connections) in these areas and, later on in development, synaptic pruning. Choudhury et al. (2008) stated that, “the implication of this research is that the transmission speed of neural information in the frontal cortex should increase throughout childhood and adolescence” (p. 143). Baird and Fugelsang (2004) hypothesized that this process underlies improvements in working memory, response selection and inhibition that occur during adolescence.

A small body of research discusses the significance that this new information holds for adolescent learners and their teachers. It is of particular importance to struggling readers in terms of new possibilities with respect to determining goals for remediation, selection of remedial strategies and other factors that may be harnessed to create increased opportunities for success. For example, neuroscientists Koyama et al. (2010) found evidence to suggest that reading-related networks are represented in the brains of adult readers, likely as a result of learning and experience. This finding leads to many exciting possibilities with respect to identifying normative processes and, subsequently, processes that may be dysfunctional. As well,

it may provide insight into the reasons why efforts to remediate these students may have been ineffective.

Perhaps the most important idea that emerges from this research is that educators must build connections to research carried out in other disciplines, including those of neuroscience and cognition. Soon, we may be able to apply interventions based on what these researchers have observed about the effect that instruction and experience have on the development of cognitive structures. For example, Koyama et al. (2010) examined experienced adult readers to determine the loci of functional interaction among six reading networks with the goal of using their results to investigate reading disabilities. Future contributions to this area of research likely will have an enormous impact not only on interventions to respond to specific issues, but perhaps also on the role of educators. Rather than teachers of skills and information, educators may come to be viewed as constructors of brains.

The development of metacognition.

Nevertheless, we can take our current knowledge about brain development and make some assumptions about the increase in capacity that is possible during adolescence. Joseph (2010), an advocate for the purposeful teaching of metacognitive strategies, summarized a number of studies that indicated how

many struggling students fail to understand the learning process and lack introspective skills, resulting in unproductive approaches to their school work (and, with the help of) metacognitive instruction ... (can) become aware of their own thinking and learn to work through challenges without undue frustration. (p. 100)

Joseph demonstrates a clear concern for opportunities to develop the quality and content of thought. The instructional strategies that she has proposed offer opportunities to students who

continue to struggle with decoding and word recognition and who might benefit the most from this process of increasingly refined thinking. As well, Joseph identified the manner in which content area teaching subsumes instruction in the mental processes that a developing learner requires to address curriculum successfully. Further Joseph stated that these strategies can easily be combined with curriculum to increase students' learning repertoire.

Teaching metacognitive strategies may be particularly true for the subgroup of struggling readers who have been identified as having ADHD. Willcutt, Doyle, Nigg, Faraone and Pennington (2005) identified some executive function weaknesses as dimensions of concern in some cases of ADHD. Particular functions that were problematic for some learners included response inhibition, planning, vigilance and working memory, several of which can have an impact on reading ability. As identified earlier, according to Willcutt et al. (2007), reading disabilities are often comorbid with ADHD and school personnel often do not have specific training to work with the challenges that these issues present in tandem. Willcutt et al. also cautioned that these students will likely require additional assistance to successfully manage the less structured academic environments found in both secondary and post secondary institutions.

As suggested by Joseph (2010), the direct teaching of metacognitive strategies that support not only reading, but also organization and task completion among others have the potential to be very helpful to middle years students. In a review of studies completed by themselves and other authors over a number of years that examined the relationship between reading comprehension and metacognition, Kolic-Verhovec, Bajanski and Roncevic Zubkovic (2010) found that there were developmental aspects to metacognitive capacity and that different aspects of metacognition contribute differentially to comprehension of text. The studies they referred to in their chapter synthesized findings with respect to identifying age and gender

differences, however I refer to only those discoveries about age differences here. Kolic-Verhovec et al. found that metacognitive monitoring had a stronger impact on comprehension than did metacognitive knowledge about reading. These researchers hypothesized that a certain level of language proficiency (i.e. automaticity in word recognition) must be present before monitoring can be done efficiently. Kolic-Verhovec et al. also noted how they had previously found that direct instruction in monitoring strategies, including rereading and looking back, could be used to assist younger students, as well as older, dysfluent readers.

Zohar and Peled (2007) examined the efficacy of explicit teaching of metastrategic knowledge (higher order thinking skills and strategies) to assist both high and low achieving Grade 5 students with problem solving skills and scientific thinking. Using a treatment and a control group, the impact of direct instruction in strategic and metastrategic thinking was assessed through interviews that explored students' performance of a computerized task (microworld) that required students to exercise control over a number of variables. Results showed success for both groups, but these results were magnified for the low achieving group and were preserved in near and far transference of these skills.

In a study that examined the variable of age on the teaching of metacognitive strategies, Chambers et al. (2010) hypothesized that a strategy-based intervention program could have differing effects upon struggling middle years readers of different ages. Rather than focusing on lower-level skills or individual strategies, this intervention program for Grade 6 and Grade 9 students involved supporting acquisition, storage and expression of information through a range of reading and writing strategies that were presented in addition to their regular Language Arts program. These authors defined a strategy as a cognitive, metacognitive or behavioural process that is deliberately and consciously applied as a means to achieve a goal. The results of their

study indicated that there were, in fact, differences in the increases in comprehension that resulted for students in Grade 6 and Grade 9, with the Grade 6 students actually showing greater gains. They also cited research that suggested that teachers require several years of experience before they are fully comfortable with teaching strategic processing.

The role of motivation in reading difficulties.

In spite of receiving support for skills development and scaffolds for cognitive capacities, struggling middle years students often have difficulty maintaining their willingness to work collaboratively to solve their reading issues. Many research studies have explored the relationship between reading difficulties and motivation. Within this area of study, there is wide agreement that, in addition to the ability to decode and comprehend text, motivation is a necessary component of successful reading. Put simply, “a good reader has both skill and will” (Cambria & Guthrie, 2010, p. 16). Guthrie and Davis (2003) described struggling readers as unmotivated, having low confidence with respect to their reading ability (sometimes called self-efficacy) and more dependent on extrinsic versus intrinsic motivators. They refer to a definition that describes students’ capacity to be intrinsically motivated as “students reading out of curiosity and to pursue their interests, expressing a preference for challenging texts that help them think and learn, and demonstrating a disposition to read independently for understanding, as well as for completing assignments and fulfilling teachers’ expectations” (p. 61). They also identified a number of ways in which these issues can be exacerbated for middle years students who struggle with reading. In particular, Guthrie and Davis noted that these students experience a much more rapid drop in intrinsic motivation to read versus students who believe they are capable readers and who maintain a more appropriate balance between intrinsic and extrinsic

motivators. This decrease in motivation reduces the time that students spend reading, which exacerbates the problems they have.

Interestingly, problems with motivation may have begun even before these students started school. Morgan, Fuchs, Compton, Cordray and Fuchs (2008) found that students who were considered to be at-risk lagged in motivation and task engagement prior to the beginning of formal literacy instruction. Morgan et al. expressed the concern that most research dealing with reading failure focused on either early identification of skills deficits or the instructional practices needed to remediate these difficulties rather than on other factors. However, alternative explanations may be related to the concern noted earlier among researchers who have studied ADHD – inattentive type who felt that inattentiveness may be learned behavior based on underlying learning difficulties or the early deficits created by phonological processing issues.

It is generally thought that a lack of motivation creates a downward spiral where low skills and avoidance of opportunities to engage in reading create an ever-widening gap (Guthrie & Davis, 2003). In a meta-analysis of the underlying reasons why individuals become lifelong readers or avoiders of reading, Mol and Bus (2011) found that “the basic reading skills of children in primary and middle school with a lower ability level were more strongly related to print exposure as compared to higher ability readers” (p. 287). Mol and Bus also discussed how an increased exposure to print during leisure time could serve as an effective intervention to promote increases in accuracy and fluency of reading. Further, they noted that low ability readers have difficulty obtaining reading materials that are appropriate in terms of interest and reading level. The results of their meta-analysis may seem rather obvious to experienced teachers. However, accountable, productive time with eyes on appropriate text is not always easy to achieve, even during classroom silent reading. This meta-analysis by Mol and Bus

effectively illustrates why the concern with motivation is an omnipresent theme in literature focusing on reading issues.

A number of authors have expressed concern that a decrease in motivation could be due to middle school environments that could exact a toll on those students who struggle with skills. This concern is not a new one. Wigfield and Eccles (1994) discussed factors that could contribute to a decrease in students' beliefs in their own competence. These researchers identified factors intrinsic to traditional middle schools that included a larger student population, a less personal environment and teaching staff that were subject area specialists.

These issues were described from a psycho-social perspective by Walker and Greene (2009). Their study examined students aged 14 to 19 for the "confluence of student-environment-related variables (in order) to understand their impact on motivation and achievement" (Walker & Greene, 2009, p. 464) through a number of measures including surveys, and specific questionnaires designed and tested by other authors that dealt with specific aspects of motivation, such as belonging and achievement of goals through perceived instrumentality. Their results identified the complex interaction among a number of variables and demonstrated the difficulty in dealing with motivation in isolation. Walker and Greene concluded that an increased sense of belonging increases student commitment to developing understanding and engaging in the cognitive effort required to ensure that understanding. As well, perceived instrumentality (i.e. how and why what is being learned will be useful in the future) also plays a key role in student motivation. As well, Walker and Greene (2009) found that students accept the prevailing performance goals within the classroom that have been established by the teacher. If these performance goals involve competition, students who struggle will accept these goals and engage in self-handicapping behaviours that presumably

decrease a sense of belonging. According to Walker and Greene, goal-orientation on the part of students is not fixed and can change with a change in environment.

Scaffolding self-advocacy skills.

Many teachers, including myself, are of the opinion that struggling readers need to be provided with specific information about their learning profiles in order to engage in self-advocacy at school. Surprisingly, however, in spite of evidence in the literature on the manner in which struggling readers engage in avoidant behaviours with respect to many academic tasks, they can also have a remarkable lack of awareness about the issues that they struggle with. Stone and May (2002) examined the accuracy of the self-evaluations that adolescents in Grades 9 to 12 diagnosed with learning disabilities made with respect to their own skills and the kinds of support they required. This study examined self-perception of students in relation to academic self-concept and general self-concept and compared it to the perceptions of parents and teachers, as well as to students' performance on completed tasks. The researchers concluded that these older students consistently over-represented their abilities and, consequently, were ineffective with respect to being able to accurately advocate for themselves when they faced personally difficult tasks.

The results of the study by Stone and May (2002) indicate an ongoing need for support of learning issues by an external support person. While this role often falls to school staff, parents may also be available to provide the additional support required by these students. Hill and Tyson (2009) conducted a meta-analysis of studies that examined the impact of parental involvement on middle school achievement. While not all aspects of involvement were helpful, positive results were associated with what these researchers called "academic socialization" (Hill & Tyson, 2009, p. 740). This construct includes parental communication of expectations of

achievement, the value of education and the communication of vocational aspirations. Hill and Tyson further described these expectations as scaffolds for autonomous, independent behaviour and cognitive subskills required for semi-autonomous decision-making. These findings connect to the research supporting the explicit teaching of metacognitive strategies with respect to comprehension, organization and task completion discussed earlier.

Accommodations and the use of compensatory strategies.

Shaywitz, Morris and Shaywitz (2008) concurred with struggling readers' use of metacognitive strategies and also advocated for accommodations to support these students' access to the curriculum. These accommodations "can include those that by-pass the reading difficulty by providing information in an auditory mode, compensatory assistive technologies and those that provide additional time so this dysfluent reader can present his/ her knowledge" (Shaywitz et al., 2008, p. 466). Since it has long been recognized that struggling readers frequently have cognitive abilities in the average range and beyond, these accommodations are a reasonable way to enable students to access and contribute grade-level thought within activities and lessons in their classrooms.

At the same time, very little research or discussion exists in the literature with respect to the use of technology to create opportunities for independence for struggling readers. While it is abundantly clear that some students will continue to struggle with low level skills, most of these students have not had exposure to software that acts as a reader. Edyburn (2007) asked some pertinent questions related to the incorporation of technology to support reading issues that are presently unanswered in the literature. Edyburn advocated for the use of supportive technology when a child is unable to read at the end of primary grades. He suggested that the question of remediation versus compensation and the timing of the use of a compensatory strategy are the

most important aspects of a research agenda in this area. He identified a number of potentially useful software items, however, at the same time, raised questions as to how decisions will be made with respect to which students will benefit from their use. Edyburn did not suggest that efforts to teach reading be stopped, but rather that the technology be considered for use at times when the child requires access to curricular materials that are at a reading level that is beyond him/her.

Other issues that arise when technology is considered have to do with its accessibility to all learners. In B.C., students with diagnosed learning disabilities do not meet the criteria for support of their learning issues through Special Education Technology B.C. The latter means that available technological supports, such as Kurzweil 3000 which has capacity to effectively read for students, cannot be provided through the schools. This situation downloads the acquisition of computers and expensive software onto the families of struggling readers. While many families would likely be interested in this option, many others would be unable to afford it, creating further access and inequity issues.

Towards a Pedagogy of Multiliteracies in Support of Struggling Readers

Defining literacy for struggling readers.

It is apparent from the literature reviewed thus far, that many questions remain with respect to the support of struggling middle years readers. At this time, these questions have coalesced in a manner that is confusing for many classroom teachers who wish to continue skills development, but who also want to have their students' access grade level curriculum and thought. Students resistant to remediation often spend years learning to read simple, low level text because they cannot identify words and read them fluently. Important issues that have not been clearly addressed by the research are what our expectations should be with respect to the

successful remediation of all students or what that remediation should look like. At this time, in B.C., classroom assessment of reading is based on performance standards established at each grade level. With the use of these widely held expectations, even dramatic improvements in reading do not necessarily mean a student moves from the descriptor Not Yet Within Expectations to Minimally Meeting Expectations (B.C. Ministry of Education, 2006, p. 142). While some designated students may have assessment information that entitles them to accommodations for reading, how many of these students actually have the opportunity to use this support daily in their classrooms? What are the consequences of providing these supports for only occasional high-stakes assessments? How can these students' performance be quantified in a manner that reflects their growth?

Specifically, can middle years readers with average cognitive capacity whose skills are in, for example, the late primary range be expected to improve their reading to the point where they can fully access text appropriate to their grade level? Archer (2010) explored this research gap and examined the Lexile reading growth of at-risk middle years readers over five years. Students in Grades 7 and 8 participated in both a language arts class and a leveled reading class daily. The reading class cycles were eight weeks in length, and, at the end of a cycle, students were evaluated, and, if their reading had improved, were assigned to a higher level class. The data revealed that students' growth could be predicted by their measured start point. Lexile reading measurement is a system that measures student reading achievement against a national sample that provides descriptive information regarding typical achievement. This measurement is intended to track reading growth over time versus assigning a grade level to student ability. Archer found that, with the exception of students whose initial Lexile score was below 100, readers exhibited growth patterns that demonstrated significant initial success followed by

increasingly slow progress as they improved. This finding means that lower level skills were easier to remediate than increasingly complex ones, leaving students with an ongoing gap between their reading skills and those of their peers.

While Archer's (2010) study provides some insight into the question of the amount of reading growth that may be set as a goal, it also raises the issue of a further gap in the literature. When we talk about a student's reading ability, we are often speaking of the student's capacity to decode or recognize words. However, Torgesen's (2002) definition of reading achievement as being the ability to read text in a manner that is commensurate to the individual's verbal ability indicates that many classroom assessment practices are actually ill-informed conjecture. Particularly with respect to students with large gaps between their reading ability and expected norms, a lack of information about the learning profile of the individual means that educators are quite possibly either limiting the life chances of a capable thinker or expecting far too much from a child who needs modification to grade level learning outcomes. Both of these possibilities are unacceptable.

Perhaps most concerning of all, research has shown the long-term ramifications for cognitive development that an inability to read presents. Ferrer, Shaywitz, Holahan, Marchione and Shaywitz (2010) found that treatment resisters may require enhanced environmental inputs in order to support the vocabulary and general worldly knowledge that underlies cognitive growth. While a successful reader is one who is able to read at a level that is commensurate to his or her verbal ability, this relationship has been shown by these authors to be bi-directional. That is to say, a lack of exposure to words and ideas as a result of decreased exposure to text can affect verbal ability over the long term.

A positive development in the support of struggling readers is the advent of assessment for learning strategies, also called formative assessment. Heritage (2007) stated that “even after more than one hundred years and a significant body of research, the idea that assessment and teaching are reciprocal activities is still not firmly situated in the practice of educators” (p. 140). Heritage advocated for a shift away from the sole use of assessment of learning through an increased emphasis on creating a safe learning environment, teaching students to use self and peer assessment strategies and tools, and developing teacher capacity to identify and interpret evidence and to match instruction to that evidence. Thus, formative assessment functions as an ongoing tool used in classrooms to involve students in addressing incremental steps toward an identified goal or learning intention. In an evaluation of effective practice in middle schools, Forsyth and Howell (2006) also identified the use of specific, descriptive feedback versus evaluative feedback as an essential component of assessment for learning. The B.C. English Language Arts Integrated Resource Packages (B.C. Ministry of Education, 2006) described and outlined the manner in which this form of assessment is used to improve the literacy skills of all students. Most importantly, this document specified that “(within the cycle of assessment) the teacher’s personal knowledge of the students plays a large part in determining which target strategies will be compatible with their Zone of Proximal Development” (B.C. Ministry of Education, 2006, p. 26). Put simply, each student must be supplied with feedback that provides achievable steps towards goals that are personal, but also connected to the Performance Standards.

The potential importance of this form of assessment is enormous. Assessment for learning identifies individualized short term, attainable goals that move students toward the attainment of a learning outcome. The message that students can take from this assessment is:

how can I get to where I want to be? It can be used easily in conjunction with Reading Performance Standards for comprehension of text at an appropriate independent reading level. Formative assessment is also very much in keeping with the use of other metacognitive strategies which have been found to be beneficial to all students including students whose reading remains a concern in their middle years. A detailed document outlining the importance of this form of assessment was completed by Western and Northern Canadian Protocol for Collaboration in Education (2006). This manual described the process of engaging in assessment for learning, assessment as learning and assessment of learning in order to promote achievement for all students.

Guthrie and Davis (2003) discussed the misconception that struggling readers are low achievers who lack the cognitive capacities required for success in school. These authors suggested that an alternative view of these students recognizes that they are actually disengaged from school literacy. This view invites teachers to consider ways in which students can be reconnected versus remediated. Through their reconceptualization of struggling readers as students who were disengaged from literacy, Guthrie and Davis provided a bridge between the sometimes competing-philosophies of developing skills and understanding motivation.

A rationale for the use of multiliteracies for all students.

This reconceptualization requires educators to consider struggling readers as capable learners who merit consideration within the larger picture of literacy education. It also includes consideration of pedagogical shift to multiliteracies in education. In an effort to recognize the broader concerns and capacities that have emerged with the advent of new technologies, increased globalization that involves the interaction of cultures around the world and the multimodal nature of human communication, the New London Group (1996) produced a pivotal

document that provided a rationale for the consideration of students' future needs and advocated for a pedagogical shift to the incorporation of multiple literacies into today's classrooms. Based on the idea that "human knowledge is ... embedded in social, cultural and material contexts" (New London Group, 1996, p. 82), the authors suggested that educators recognize these contexts by encouraging meaning-making through all of the designs available, not only those traditionally valued by schools. The notion of design is an important one within this approach and requires consideration of how it can be used to encourage the development of literacy skills that benefit students throughout their adult lives. Design, as defined by the New London Group, includes three elements. Firstly, it includes all designs that are available, including the "grammars" or rules of various semiotic (meaning making) systems and orders of discourse or conventions associated with semiotic activity. Secondly, it involves the active process of designing (or creating) meaning. Finally, it recognizes redesigning which involves the transformation and expression of knowledge and which interacts with the ongoing process of design. Often, these processes are examined with respect to the technological advances that have occurred during the past 100 years, in particular television and other multimedia technology. However, the notions around design are intended to recognize all funds of knowledge available, including those from the past, present and future through the recognition of the value of all forms of meaning making. Roswell, Kosnick and Beck (2008) pointed out that this recognition involves more than simply moving from traditional text to new electronic forms of communication. This expanded definition of literacy includes out-of-school literacies; informal language; graphic, oral enacted or projected language; the full range of school subjects; all regional, Aboriginal, immigrant and foreign languages; as well as other funds of knowledge that are culturally significant and possess their own metalanguage and semiotic tools.

Perhaps most importantly, the New London Group (1996) made the point that the out-of-school literacies that students use have significant cognitive benefits. Particularly, they noted that, “when learners juxtapose different languages, discourses, styles and approaches, they gain substantively in metacognitive and metalinguistic abilities in their ability to reflect critically on complex systems and their interactions” (New London Group, 1996, p. 69). In particular, they recognized the value of transmediation or the translation of information from one sign system to another. These ideas have resonated within the literacy community and have found a particular place in the field of adolescent literacy. Many authors have extended this research and further operationalized the ideas of the New London Group for practicing educators.

In spite of the enthusiasm that multiple literacies pedagogy has engendered in academic circles, there have been significant challenges in its implementation in classrooms. In a study of preservice teachers’ capacity to implement these ideas in their practicum settings, Roswell, Kosnick and Beck (2008) found that new teachers experienced difficulty with comprehending the new terminology, in particular the notion of constructivism. In a discussion that provides a rationale for further research on new and multiple literacies, Moje (2009) made a clear distinction between new technologies and new literacies, a distinction that is often difficult to understand for those teachers who are new to these perspectives. She noted that new literacies use symbol systems and technologies for producing those symbols to create meaning. One of the interesting points articulated by Moje was that new literacies may actually require or privilege new cognitive processes. She advocates for synthesis of existing research and a continued exploration into how teachers can be supported to reach all students through a range of literacy practices.

Using multiliteracies to support struggling readers.

With respect to this enquiry, the issue that arises from the above discussion is whether multiliteracies can be used to effectively support struggling readers. Some authors have discussed specific aspects of the difficulty of depending on print-based instruction for struggling readers. Stevens (2002) made an important connection between the exclusive use of the designs traditionally privileged in school and their effect on motivation and engagement for struggling learners. She pointed out that “as long as factual interactions with text remain at the centre of secondary school literacy practices, the pursuit of literacy will represent a disconnect from what is viewed as the real world of schools and teaching (Stevens, 2002, p. 274). Alvermann (2008) concurred with this view and pointed out that, “conventional text-bound teaching in the content areas belies how contemporary youth locate and use information that has relevance for them” (p. 17).

Based on these concerns, other educators have begun to explore the potential of multiliteracies to support struggling readers in their classrooms. As an example, one of the key concerns for older struggling readers is the nature of the relationship between reading and IQ over time. As outlined earlier, it is thought that the opportunity to develop vocabulary and worldly knowledge is seriously impacted by low reading skills. Ryan (2008) used authentic literacy projects based on a lesson sequence that specifically considered the ideas that students should not only learn about established knowledge, but also have opportunities to understand this knowledge in relation to themselves with an emphasis on representing their redesigned knowledge. Ryan’s implementation of multiliteracies pedagogy developed knowledge and vocabulary intentionally through a range of learning opportunities and provided the 11 and 12 year old students in her study with many opportunities to develop the experience that underpins

vocabulary development. One of the key concerns for older students who struggle with reading is the nature of the relationship between IQ and reading over time. As outlined earlier, it is thought that the opportunity to develop vocabulary and worldly knowledge is seriously impacted by low reading skills.

In another study that explored the potential of multiliteracies pedagogy for struggling readers, Cumming-Potvin (2007) examined the experience of an at-risk Grade 7 student as he engaged in a reading circle through the use of scaffolding alongside capable peers, as well as multiliteracies connections outside of school. She found that multiliteracies pedagogy recognized this student's out-of-school identity as a capable person and the concomitant body of knowledge he possessed. It enabled him to connect his outside school experiences to the literature circle, thereby promoting his sense of agency and commitment to the in-school task.

The idea that multiliteracies pedagogy can act as vehicle for connection of experiences is an important one. Moje et al. (2004) conducted a study that explored the development of connections between in- and out-of-school literacies in a group of Latino adolescent students who were marginalized linguistically and culturally from the general population in their school. Moje and her colleagues interviewed the students to determine the number and scope of the funds of knowledge available to them and examined their classroom interactions for evidence that students made use of their knowledge in their classrooms. The researchers found that unless specifically asked to do so, the youth rarely volunteered information about their out-of-school literacies in their classrooms and did not build connections between their learning at school and what they knew from personal experience. By adopting a pedagogy of multiliteracies, these students may have perhaps better understood the power in these connections.

In spite of the aforementioned enthusiasm for multiliteracies as a part of the solution for struggling readers, a paucity of outcome-related research exists to support its inclusion at this time. Moje (2009) called for continued research into the value of implementing multiliteracies pedagogy in classrooms, particularly to support struggling readers. Although she noted that findings that currently exist in this area are mixed in their support of multiliteracies, she noted the importance of considering more data than solely gains in standardized test scores. An advocate for the inclusion of multiliteracies herself, Moje called for ongoing exploration of student outcomes, those being “both in relation to school learning and other forms of social and cultural development (2009, p. 358) in order to justify and expand practice. Important ideas for research include identifying if the incorporation of multiliteracies influences students’ feelings about school and reading, assists students to develop a voice in the classroom, school or community and enables students’ interests to be reflected in curricular outcomes.

The challenge for middle school educators.

It is evident that existing practice must be considered through the lens of multiliteracies pedagogy in order to explore the possibilities for reconnection of disconnected struggling readers in middle years. The complexity of supporting continued development in reading for these students whose difficulties have persisted is a daunting task for middle school teachers. Competing discourses within the literature make it challenging for educators to formulate a coherent research-based plan to support these students in their classrooms. In fact, as Ivey and Broadus (2000) pointed out, not only do teachers have to address issues that confound students’ reading achievement such as their levels of knowledge, skills and attitudes, but also that teachers must contend with the feelings that they are not adequately educated or do not consider it their job to teach reading. There is a very serious temptation to hand these students over to “an

expert” for remediation, however, “a class set up to specifically target skills and strategies areas that are considered deficits that must corrected, by implication, positions students as incompetent, which does not bode well for their future engagement” (O’Brien, Beach, & Scharber, 2007, p. 69). The literature reveals this strategy has not been an effective solution to the problems faced by these students. Classroom teachers who work with these students for much of their day at school, we must learn what and how to teach these students. When we consider that most of these students have intellectual capacity in the average range or higher, it is their positioning within their peer group as incompetent learners that causes most concern. It is important to focus on the fact that their life chances are not dictated by their lack of reading skill, but rather by the knowledge and opportunities they miss as a result of their struggle.

In spite of some research that has indicated poor instruction may be a factor in reading failure, very few studies deal specifically with the issue of teacher capacity and expertise with respect to the problems faced by struggling readers. Several recent studies have engaged in a preliminary discussion of this issue. Lyon and Weiser (2009) identified a number of questions related to the lack of literacy courses for teachers within undergraduate teacher education programs. At the same time, these authors also cite research that questions the extent to which what we believe are good instructional practices actually assist with the development of reading. McCutcheon, Green, Abbott and Sanders (2009) examined the impact of teachers’ linguistic knowledge on measures of middle elementary students’ improvement in vocabulary, composition, spelling and non-word reading. This study demonstrated how improvement of teachers’ knowledge through participation in a summer institute and subsequent support by a mentor positively affected all students with respect to these aforementioned skills and that lower-performing students significantly outperformed their peers in the control group. Acknowledging

that these are lower level skills that may not improve comprehension, the authors also noted that younger students made significantly more progress than their older counterparts.

Clearly, the evaluation of what constitutes effective instruction must be a priority and it will likely be best accomplished through multidisciplinary enquiry. Educational research, in conjunction with research in the fields of neuroscience and developmental psychology, must explore how we can support or compensate for atypical neural pathways for reading. Perhaps we will soon be able understand what these pathways look like in normative readers through MRI and compare these results with images of the brains of struggling readers. Advances have already been made in understanding the ongoing development that occurs in the adolescent brain. The partnership between cognitive science and the emerging technologies in neuroscience has allowed the observed external physical and behavioural changes of adolescence to be connected to observations of the ongoing nature of development in the cortex of the brain. It can be logically inferred that this development involves an increase in the capacity for executive function, including metacognitive and metastrategic thinking and attentional controls, that may impact how we address the remediation of older struggling readers.

In advance of these potential developments, the perspectives and strategies that are currently at teachers' disposal must be examined. Programs to teach strategic reading in content areas are widely available and have extensive connection to research and established best practices. Our understanding of the capacity of the adolescent brain can be expanded to develop a range of metacognitive strategies to benefit all students. Teachers can recognize that this focus in teaching reading across the curriculum continues the privileging of reading and writing over other forms of literacy or funds of knowledge and compensate by strategically providing experience with alternative forms of meaning making.

Stevens (2002) described the impetus to move beyond the current conceptualization of literacy when she advocated for a move to the broader definition of literacy outlined by the New London Group (1996). However, the integration of multiple literacies into the curriculum has been a slow process. British Columbia's most recent English Language Arts (B.C. Ministry of Education, 2006, 2007) curriculum documents have made an effort to move in this direction as they support a broader definition of text, and recognize oral language and technology-oriented connections as important components of literacy development at all grade levels. However, a true pedagogy of multiliteracies goes far beyond these changes and recognizes that students benefit from a much wider view of the funds of knowledge that embody and operationalize the term "literacy." All can students benefit from this philosophy, but students who struggle with the skills that have been traditionally valued in schools have the most to gain.

Many of the changes suggested by the New London Group (1996) not only challenge both the mindset and skill set of most educators. However, the issues presented by a broadened definition of literacy are more pronounced in middle schools where many teachers are content area specialists rather than being expert in early literacy strategies or learning assistance. This change requires the enthusiasm and involvement of professional learning communities. Compton-Lilly (2008) framed this problem most eloquently when she examined the benefits of incorporating new literacies within a case study of a marginalized learner named Leon. Leon was from a visible minority group, impoverished and had minimal foundational literacy skills. Compton-Lilly (2009) stated, "we can no longer teach only phonetics, phonemic awareness, fluency, vocabulary and comprehension skills – we must teach Leon" (p. 90). Teachers need to engage in the art of teaching by making use of the interests and strengths of the learners in their classrooms. Vasudevan and Campano (2009) expanded this concern further when they

suggested that the concept of being an “at-risk” literacy learner is a social product that limits these students’ life chances. They

argue against ... negative depictions and propose a more expansive conceptualization built on sociocultural perspectives (to understand how) adolescents (are) taking up reading, writing, speaking and other semiotic modes in ways that are intimately tied to their understanding of themselves in relationship to the world.” (p. 312)

Summary

Understanding the nature of the school experience of struggling middle years readers is an essential piece of identifying solutions to this complex and life-limiting problem. Most of these readers have travelled a lengthy educational road and have been the object of many interventions and posited solutions that have failed to impact their skills issues. In a discussion of how schools should respond to what we now know about the qualitative differences of adolescents, Kuhn (2007) reminded us “that the intellectual development that occurs in the second decade of life ... is enormously important ... and ... instead of a contest with winners and losers, that is won or lost early in life, school could be a path for development where everyone wins”(p. 763). Kuhn’s ideas are important to our consideration of potential solutions for struggling middle years readers. These students have many new and emerging capacities and yet, some of the foundational beliefs that underpin our education system disadvantage these learners.

Decoding and comprehending text, in spite of formulations such as the simple view of reading, are complex tasks. It seems now very apparent that the answers as to why some readers struggle may lie outside of the field of educational research for the time being. While we understand, for example, that phonological awareness, is an area of weakness for many

struggling readers, this aspect is most certainly a manifestation of a cognitive structure or process that is somehow different from that of successful readers as a result of nature or nurture.

Research questions need to be developed that assist educators with understanding the locus of reading problems and with devising remedial strategies that acknowledge these underlying processes and work with strengths that individuals possess. It is time for education, as a field of enquiry, to form a partnership with cognitive psychologists and neuroscientists to develop these plans collaboratively and with the expertise that each field possesses. It is no longer sufficient to label a student a struggling reader, as learning disabled or, perhaps worst of all, a low achiever. These labels are pejorative and create their own limitations in terms of a sense of self-esteem or self-efficacy. They negatively impact a student's position in a peer group and limit access to academic programs.

What is known about reading resistors in terms of skills, self-esteem and self-efficacy point to the dangerously deleterious condition of the literacy of these students. If decoding and word recognition continue to be considered the gatekeepers of literacy, we run the serious risk of under-challenging and under developing many capable minds. While educators must accept that they have diversity in capacity in our classrooms, they must not accept that the simple mechanics of reading should limit any students who sit in our classrooms. Early intervention must be used, not only to solve these mechanics issues, but also to identify students who must be taught differently to achieve their potential. Programs must be developed that do not allow the correlation between IQ and vocabulary to manifest itself. It is a social construct of our own creation must not be allowed to limit students' life chances.

The research summarized in this chapter speaks to the profound problem of having a means to identify successful programs through piloting and evaluation prior to their adoption as a

remedy. In particular, it is deeply concerning to consider the number of programs that have been used ineffectively and the impact of these failures to successfully remediate reading have on intrapersonal issues such as self-esteem, self-efficacy and resilience. Given the pedagogical shift to multiple literacies and the recommendations made by some researchers with respect to early use of compensatory strategies, perhaps educators need to consider how to routinely formulate dual track plans that continue to promote reading skills, but which also enable students to use technology to access grade level curriculum. Such plans might, for example, include the development of combined services between a learning support and a classroom teacher to deliver a program that includes intensive support in a small group for decoding and word recognition skills, and in-class use of metacognitive and metastrategic tools, including technology, to participate fully in classroom activities and lessons.

A gap in the literature exists regarding explorations of issues surrounding the coordinated use of remediation, access to accommodations and the inclusion of multiple literacies in comprehensive plans for students. The dilemma faced by teachers who seek to develop programs and remedies for this complex and multi-faceted issue likely lies in the extension of research into what good readers do. Specifically, through retrospective research, we need to identify and explore what has contributed to the success of struggling readers who are effectively remediated and use this information to design empirically supported remedies in longitudinal studies

Rather than viewing students who struggle with reading from a deficit perspective, we need to uncover and celebrate the unique and valuable thinking that resides within each of them. Our understanding of the accelerated and ongoing nature of adolescent brain development requires the design of instructional strategies that support this kind of thinking. We need to consider how to support the particular issue with reading that each struggling reader has and, at

the same time, enable and empower these students to develop the higher level cognitive processes that are the hallmark of a broadened definition of literacy. Further research is required to examine how educators should respond to the various reading issues that these students experience, the effectiveness of remediation strategies and the kinds of ongoing professional development and support that their teachers require to ensure the success of all students in the classroom and beyond.

In Chapter 3, I reflect on the experience of assembling this project, including the creation of a presentation designed to disseminate this information within a professional learning community. In particular, I synthesize my experience, both personal and professional, with information provided by my review of the literature.

Chapter 3

Reflecting and Moving Forward

The Personal and the Professional Revisited

This project provided me with the opportunity to reflect upon and synthesize my own personal and professional perspectives on literacy education for struggling readers. I still find myself somewhat daunted by the limitless number of professional journals and complex theoretical and empirical information that has been amassed during recent years. I am also in awe of the obvious caring and enthusiasm for creating solutions for this group of students on the part of educators, cognitive psychologists and neuropsychologists. My wish at this point is for an increased presence of this information in the classrooms of practicing teachers today. I believe we have the solutions on a theoretical level, but we have a considerable way to go in their implementation.

The experience of being the parent of a struggling reader perhaps positioned me within the conversation about struggling readers differently than many teachers. This difference was never as clear to me as when I moved to a Kindergarten to Grade 7 elementary school. As a parent, I knew that my son was not ready to read in Grade 1, but it did not especially concern me at that point. However, when I became the Learning Assistance teacher of younger students, I became much more aware of the issues related to early intervention that have been raised by researchers such as Torgesen. I have observed students who struggle with reading at an early age and who seem destined to attending reading groups in perpetuity. I also believe that the struggles of many students are due to teacher capacity. There are simply too many classroom teachers who struggle to implement an effective differentiated program that accommodates the range of reading levels that we must expect to see in all classrooms. We must accept and

provide appropriate instruction to all students, not only the average or “grade level” readers. As a profession, we feel a great deal of pressure to get primary students reading, but lack comprehensive strategies to continue this work in older grades. However, the focus on early intervention that is present in the American literature and, in fact, Canadian classrooms, is not reflected in literacy education in some other countries. The Finnish education system, for example, does not begin formal instruction in reading before children are seven years of age. As an aside however, it must be noted that the comparison of English-speaking and Finnish-speaking students is perhaps not entirely a valid one. Finnish has a very consistent grapheme-phoneme correspondence whereas English does not. Aro (2004) found strong support for the idea that there are qualitative differences between transparent and opaque orthographies in the process of reading acquisition. We can infer that the opacity of English orthography acts as a confound for some students in their acquisition of these concepts. Succinctly put, it can be difficult for some students to learn to decode and encode in English because of its orthographic inconsistency. Even with this information in mind, it is interesting to consider the later start to formal education because, statistically, many students in our school system have already been written off as low achievers in early primary grades. I often wonder if we take credit for the success of early intervention efforts when we actually are observing the effects of maturation.

Examining the Literature in Relation to Practice

I am very reluctant to support Torgesen’s (2002) label of “treatment resisters” and, in fact, the deficit perspective that is commonly held by educators who wish to remediate or repair the skills deficits of struggling middle years readers. When we label these students pejoratively, we position them as such and they are well aware of this positioning. I have found that all readers, including those who struggle, benefit most from a program that emphasizes daily,

accountable, independent reading, such as exists within Susan Close's SMART Reading program, (Close, 2011). I do not find that students need to be pulled out or side-lined with low level comprehension tasks. I like the manner in which this program uses interesting, authentic text. I want students to understand what readable text looks like for each of them individually. I also want them to be engaged in appropriate grade-level thinking about that text, regardless of its level of difficulty. These ideas are founded on the work of David Pearson and others who advocate for the use of the strategies that good readers use in order to comprehend text.

The reason that I believe access to grade level thinking and conversation is so important is the vocabulary factor and I was very happy to see this idea documented in the literature. All students who possess average intellectual capacity are capable of understanding critical thinking vocabulary and of using it to express big ideas. If we know they cannot decode those words, then we, as teachers, need to find a way around that problem. Generally speaking, our goal for emergent and developing readers is that they be able to decode and encode the language they possess in their speaking and listening vocabularies. The latter is really what Torgesen (2002) is talking about. It may be that, in the long run, students require supportive technology to use the vocabulary they possess in reading and writing, but the goal should not change as a result of the use of this adaptation. The research I appreciated the most within the literature was that of Edyburn (2007) who advocated for the early use of supportive technology in concert with continued efforts to increase decoding skills for those who struggle with this aspect of reading. The use of compensatory technology is, in my view, the only way to avoid ghettoizing struggling readers and, fundamentally, creating a two-tiered education system.

Because of my professional experience to date, I was well aware that decoding issues are at the root of most reading difficulties. A student's difficulty with the development of

automaticity in decoding and fluency in reading requires an enormous amount of energy to overcome. I knew that fact from my own experience with supporting my son. We spent hours and hours reading to him, reading with him, providing extrinsic reinforcement (that was a lot of Beanie Babies!) and convincing him that he was actually a very capable person. I knew how hard he was working. In my practice, I often find that we do not accord these students as much respect as they deserve for the effort they must engage in to make measurable progress. I have found that as much as I must be their teacher, I must also be their coach, their cheerleader and their advocate.

Many whose learning issues I cannot explain will never receive a psycho-educational assessment. This idea is very difficult for me to accept because I believe, as does Levine (2002), that students require an explanation of their learning issues in order to overcome them. This lack of information about a student's learning profile is particularly problematic if we accept the ideas advanced by Joseph (2010) that metacognitive and metastrategic teaching can provide the structure and organization to support continued literacy development in students who struggle with academic skills. I believe absolutely that she is correct in her belief that metacognitive and metastrategic thinking benefits these students. As well, I have also found, in my own practice, that the increased cognitive power that begins in early adolescence can be harnessed to foster intrapersonal compensatory strategies that can improve student literacy. Students are much better able to make sense of metacognitive and metastrategic frameworks and have the capacity to transfer this information more effectively to new situations with appropriate scaffolding. I look forward to the increased information that will become available in this area of the literature as a result of ongoing research in the field of neuroscience.

One of the other concerns that I reflect upon almost daily in my practice is the confounding power of attention problems on student reading. I found the idea that ADHD – Inattentive Type could be a learning issue, rather than an actual attention control issue, intensely interesting. In my experience, the quietly inattentive child can be very difficult to support because, to put it simply, the house just is not on fire. These students are behaving in their classrooms, they may not be the lowest readers and, thus, they do not receive the benefit of their teacher’s full concern. Realistically, regular classrooms are large, busy environments and many demands are placed on teachers. Many classrooms contain a number of high needs students in them, including students with designations that include: Autism Spectrum Disorder, Intensive Behaviour issues or Intellectual Disabilities. I also appreciated Archer’s (2010) thoughts on providing additional organizational help for these students as they enter middle years classrooms. In my experience, students really begin to have trouble when increased curricular demands and the less relationship-based organizational structure of middle school unfolds for them.

I think perhaps my biggest surprise within my review of the literature was how little of it spoke of supporting struggling readers through a broadened definition of literacy. I find the lack of implementation with respect to some of these big ideas very surprising. In particular, I feel strongly that all teachers must be exposed to the ideas of the New London Group (1996) in their undergraduate programs, but the fact is they may not be. These ideas encapsulate the art of teaching in a manner that is enormously important to student outcomes. By this statement, I do not mean grade level learning outcomes, but rather, these students’ life chances.

Practice Redesigned

Many ideas within this broadened view of literacy can advance the cognitive capacities of all students, but particularly those who struggle with school skills. By viewing these students

through the lens of multiliteracy and reconceptualizing them as disconnected learners (Guthrie & Davis, 2003), we can see many ways in which practice might be changed to reconnect them to complex and interesting curriculum. This perspective is not new, but rather has existed in a coherent form in the public domain for 15 years. Although the metalanguage contained within the New London Group's original document is a challenging read, many authors have subsequently operationalized this approach in a manner that can be effectively incorporated in classrooms today. The possible connections between a multiliteracies pedagogy and the development of enhanced neural pathways that support the integration and simultaneous processing of textual, visual and auditory information may offer advantages to all learners. Perhaps the goal of enhancing neural pathways for reading is aiming low and singling out students who struggle with decoding when we should focus on achieving the best results for understanding all forms of meaning making.

Although I chose to create a presentation for colleagues that summarizes what I have learned, I have done so with some trepidation. An enquiry into the characteristics, experience and potential of struggling readers is an incredibly broad topic. By examining a topic of this breadth, I chose to look at many subtopics in a superficial manner. I regret the latter and look forward to repairing this flaw in my own professional skills repertoire over time. What I hope for, however, is that this presentation piques the interest of others and invites them to go beyond viewing low reading achievement as a barrier to other educational opportunities. Our students require much better from us.

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Appendix

Struggling Readers, Capable Learners: Literacy Development for All Middle Years Students

Presentation Notes

**Struggling Readers, Capable Learners:
Literacy Development for
Middle Years Students**

**PowerPoint
Slide Commentary**

by

Kristen Robinson

Struggling Readers, Capable Learners - Speaking Points

Slide 2

Discussion Intro:

- Today's discussion is going to examine and raise questions about a number of practice issues in reading education. Foundational to this discussion is a consideration of what constitutes effective literacy education today.
- Pose question: What do we mean when we talk about literacy in today's classrooms?

Warm –Up Activity:

- In A/B partners, identify the important aspects of literacy education in middle years classrooms today. Conduct a “whip around” and record key ideas on flip chart paper.

Discussion Points for this slide:

- Discuss the problem of text density. How do you experience this slide?
- Review key ideas within quotations.
- These 3 definitions reflect the range of concerns that that are reflected in the professional literature in recent years. The ideas here have wide acceptance in the literature and each has a significant body of research associated with it.
- The pedagogy that has historically espoused teaching the skills of reading and writing and of a body of worldly knowledge now competes with a number of other concerns, some of which are embedded in curriculum documents and some which are not.
- Summative question for group discussion: How do these quotations compare with the ideas recorded on the flip chart? How do the opinions of practicing teachers mesh with those articulated in the research?

Struggling Readers, Capable Learners - Speaking Points

Slide 3

- This project represents a synthesis of my personal beliefs and professional experience with the academic literature.
- I began this project and, in fact, my Masters program, with the desire to explore whether the strategies and supports that my husband and I used to encourage our son's reading could be supported empirically by the professional literature and, if in fact, our experience as a family was at all typical. Our son was a struggling reader in Grade 3, a grade level reader in Grade 7 and a gifted reader by senior grades. He finished Grade 12 this year and achieved 90% on his English 12 provincial exam. We worked very hard with him, but his accomplishment was ultimately based on his interest and enthusiasm for "breaking the code" and exploring the wonder of stories and the pursuit of information. I believe quite firmly that his intellectual capacity was his "ace in the hole" and that he was able to compensate for his weak working memory with his verbal comprehension skills. I worked hard to ensure his self esteem held strong, that he believed himself to be a capable person. I wanted him to know that we knew he was doing his best and that his best was good enough. I also ensured that when times were tough, he had many outside interests to pursue. He is a proficient swimmer and sailor and is a qualified lifeguard and sailing instructor. The character in the image means "gifted".
- Because of my background in Human Service, I never viewed low reading ability as solely an issue with skills. I knew it had ramifications for other areas of development. I like the metaphor of viewing students through multiple lenses, something I learned in my undergraduate program. As a result, I have looked beyond skills levels and have been very interested in intellectual capacity, self-esteem and strengths in other aspects of my students' lives.
- I want this same success my son has experienced for each child I teach. I began to work in Learning Assistance with the kinds of programs that were in place in my school. These programs mainly involved Resource Room reading programs for struggling readers and homework help. I did not find these practices effective and I began to try to incorporate the things we did for my son at home in my practice at school. I am an enthusiastic proponent of the work of Susan Close's SMART Reading, and Miriam Trehearne's Comprehensive Literacy Resource. I incorporate Howard Gardner's Multiple Intelligence Theory and Barry Bennet's Instructional Intelligence strategies into the lessons and activities I work on with my students.

Struggling Readers, Capable Learners - Speaking Points

Slide 4

- Review of learning intentions on the slide and agenda.
- My intent is not to discuss this information as an expert because I am not one. I think of myself as a learner. I want to share what I have learned because of my interest in struggling readers, to hear about your experience and to have us become richer as a result of our combined experience and expertise. I have a profound enthusiasm for the concept of professional learning communities. I believe they are one of the strongest forces in our ongoing professional development.
- I particularly wanted to create a multimodal experience to underlie our experience together today. This is the world our students live in and I believe we can learn a great deal about topics within this area of interest, but also, more importantly, about the information-rich world our students navigate daily.
- Please feel free to jump in at any time and comment with respect to any information you encounter, connections that you make or ideas that you want to share.

Struggling Readers, Capable Learners - Speaking Points

Slide 5

- The simple view of reading is referred to quite widely in the literature. While it seems very reductionist, it does recognize the two broad skills required to navigate text.
- Students may be referred to in the literature as being dyslexic, as having a specific reading disability or just as being RD.
- The important ideas within this definition are that not only do students have to identify the words in front of them, but also understand what they mean.
- I think we all encounter students who are unable to read the words in front of them; however I have seen many occasions where fluent oral readers were unable to tell me anything about what they had read. In one case, I recall a Grade 6 boy who had never been referred for Learning Assistance and who had been assessed as fully meeting expectations throughout his years at school. This child has very limited listening comprehension skills. His speaking vocabulary is limited and, in hands on activities, his perceptual reasoning also shows significant limitations. There are fairly obvious reasons why he has trouble with reading comprehension.
- Aaron, Joshi and Bentum (2008) were interested in providing empirical support for viewing these components of reading separately and their contribution to these ideas is an important one. They demonstrated that word recognition was difficult for many students whose listening comprehension skills were intact. Noticing this feature of a student's profile, even anecdotally, can allow teachers to identify a student who requires further assistance or formal assessment. It is the gap between these two skills that identifies a child who most definitely requires further support, but also might benefit from assessment.
- Assessment tools that are commonly used to assess reading in my district are the DART for whole class assessment and, for individual assessment, either the Benchmark Assessment or the Developmental Reading Assessment (DRA). The middle school I worked in had neither of these individual assessment tools.
- However, there are some ways in which this form of assessment does not meet the needs of all students.

Struggling Readers, Capable Learners - Speaking Points

Slide 6

- There is an enormous body of research that describes the difficulties faced by struggling readers. Much of it is very “lens specific” and by that I mean the researchers or authors have examined a single feature of reading in an empirical study that can be difficult to relate to the whole picture. One of the common themes in the literature examines what the “usual causes” for reading failure are.
- Shaywitz, Morris and Shaywitz (2008) identified that “phonological awareness” underlies most reading difficulties. This is, of course, a generalization, but it can be helpful information for classroom teachers who want to identify some generalities in their classrooms. More importantly however, they have described more fully how this problem affects much more than just decoding. They talk about how subtle mispronunciation of words can be an early sign that these issues are present. I know an adult with an LD, for example, who consistently pronounces the word especially as “ecspecially”. He can’t recognize that subtle difference in speech.
- As much as the simple view of reading and related research has been able to separate the components of reading, these authors point out the relatedness of these issues. Weak phonological awareness leads children to have to attend too much to that single feature, rather than having their working memory being allowed to focus on other important aspects that would allow them to comprehend.
- Their comments on the use of memorization and how fluency relates to phonological awareness are very salient to understanding reading difficulties in middle years. I found this interesting because I could see how reading difficulties could really snowball with the huge amount of content vocabulary that is introduced in middle years. If we know that this is an issue, what kind of mnemonic strategies could we use to assist these students to make the connections they require?
- Who are Bernard Shaywitz and Sally Shaywitz? This question raises an important point. These reading experts are neuroscientists who have a longstanding interest in reading as an activity in the brain. When we talk about reading education and reading research, it is important to consider the perspective or lens of the voice we are listening to.

Struggling Readers, Capable Learners - Speaking Points

Slide 7

- These ideas constitute the big ideas within research that explores reading from the skills deficit perspective.

Group Discussion:

- Question 1 - Do you question any of these assumptions based on your experiences in your own practice?
- Question 2 – What impact do these assumptions have on your classroom practice?

Struggling Readers, Capable Learners - Speaking Points

Slide 8

- **Most of us are and always have been capable readers. We don't really know what it's like to have trouble with letter/sound correspondence, orthographic features or whole word recognition.**
- **This activity allows a brief glimpse into this world by making us switch up what we know.**
- **The psychologist who first assessed my son said that one his biggest challenges was the combined effect of a low working memory score and very strong visual perceptual skills. He recognized that p, b and d were the same shape because of his capacity to flip images. I had not thought of this at the time, but it raises an important point: this capacity was very inconvenient to an early reader, but will have enormous benefits to him through life.**
- **What I liked about this passage is its complexity. You can see how difficult these longer words and complex phrases are. There aren't any pictures. I notice how much energy I have to devote to "breaking this code."**
- **The image on this page is here for a reason: image helps us understand text and, in fact, enhances that understanding.**
- **Discussion Point: What does this image mean to you? What could it mean to a struggling reader?**

Struggling Readers, Capable Learners - Speaking Points

Slide 9

- In our last activity, we had to make sense of real words that were in a code we didn't recognize. In this activity, we have to make sense of words that don't make sense. How do we do that?

- **Activity:**
 1. By yourself, read this passage together and determine what it might mean.
 2. In A/B partners, discuss your analysis and justify your interpretation.
 3. Group reflection: How did you determine what this passage meant? How did it feel to have navigate a passage where the words were unfamiliar and difficult?
 4. Individual reflection: How did your interpretation compare to Wikipedia's?

- Often, in the reading I completed for this project, I had the experience of reading something that was so difficult that I had a hard time making sense of it (building a schema). It makes me appreciate the importance of prior knowledge and connections in reading comprehension.

- The fact that we can put the word "Jabberwocky" into a search engine and have a description of what it might mean instantly encapsulates the manner in which our world has changed. Our students are growing up in an information age that is qualitatively different than when many of us grew up. Prensky (2001) described our students as "digital natives" who are being raised in this environment versus the older generations of "digital immigrants" who have had to learn these skills.

- Discussion Point: What significance might this have to them as learners?

Struggling Readers, Capable Learners - Speaking Points

Slide 10

- **Joseph Torgesen is an important figure in research into early intervention for struggling readers. In this quotation, he raises an important point. We need to consider assessment on an intrapersonal level (i.e. using that comparison of word recognition to listening comprehension) to explore whether a student is reading in a manner that reflects his or her intellectual capacity. Intellectual capacity can be measured by an educational psychologist using a Level C test of cognitive ability, what is commonly called an IQ test. Tests that are commonly seen in student reports are the Weschler Intelligence Scales for Children (WISC) or the Cognitive Ability Scales (CAS).**
- **This is a standard Bell Curve that shows normal distribution of IQ in the population. What this means to reading education is that we are all on IEPs. To read in a manner that is commensurate to our cognitive ability means that much of what we refer to as “grade level reading material” is either too challenging or not challenging enough.**
- **What does this mean for practice? Douglas Fisher and Gay Ivey (2007) suggested that it means we need to consider whether longstanding teaching strategies, such as the class novel. If we are working to improve students’ reading, we have to provide them with materials that are at an appropriate instructional or independent reading level to ensure they are able to decode what they are reading. At the same time, we need to ensure they encounter challenging and interesting ideas that are appropriate to their cognitive ability. The class wide novel strategy can be redesigned to reflect this change by using it as a shared reading activity where students who are unable to decode it hear it read aloud. It should be remembered that this does not replace accountable time on independent reading of text at an appropriate level.**
- **Torgesen (2002) has also said that we know the instructional conditions that need to be in place to teach all but a small number of students to read (4-6%). He has said that, often, these conditions are not available in public school classrooms. Alarmingly, he has said that students who struggle at the end of Grade One almost never achieve average levels of reading fluency.**
- **Additionally, Torgesen has cited extensive research that demonstrates that low reading achievement affects vocabulary growth, attitudes and motivation to read, as well as missed opportunities to develop comprehension strategies.**

Struggling Readers, Capable Learners - Speaking Points

Slide 11

- This topic has generated an enormous body of literature. Erik Wilcutt is a leading researcher in this area of attention and its impact on reading achievement.
- Students can have multiple issues that make the acquisition of reading skills difficult. Recently, I received an external assessment for a child who was being diagnosed with Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS) which is an Autism Spectrum Disorder. His cognitive testing revealed gifted intellectual capacity (FSIQ = 96) and evidence of a specific learning disability in reading. He is a very unique and complex learner and he is a member of a regular Grade 2 classroom. Some other less common issues (but still ones that teachers often see over time) that confound reading acquisition are intellectual disabilities, Fetal Alcohol Spectrum Disorder and Sensory Processing Disorder.
- The point that Wilcutt and his colleagues make that is perhaps most significant to classroom teachers is this: reading disabilities and attention issues occur together and independently in most classrooms. All teachers need strategies and ongoing professional development opportunities to address the needs of these students.
- Discussion Point: What kinds of strategies can be put in place to support attention issues in classrooms?

Struggling Readers, Capable Learners - Speaking Points

Slide 12

- We've looked at reading difficulties through a number of lenses that use the deficit perspective.
- The “deficit perspective” is an important concept for teachers to consider. We commonly look at what is “wrong” with students, but do not consider cognitive strengths, ecological supports (family and community) and external supports (planning and organizational strategies, compensatory strategies) that can be organized to create success.
- What are the consequences for students when they are viewed from a deficit perspective in terms of classroom and peer group positioning, social/ emotional functioning and life chances?
- Discussion Point: How can we adjust this perspective to promote student success?

Struggling Readers, Capable Learners - Speaking Points

Slide 13

- Perhaps the most important point that must be made with respect to struggling readers is this: most fall into the average range on the Bell Curve with respect to their intellectual capacity. They are capable learners who struggle with reading. IQ does not distinguish between capable readers and struggling readers and, among struggling readers, it does not tell us who will be readily remediated (Kortteinen et al., 2009). I was surprised by this finding, because of my assumptions about how my own son's intellectual capacity favourably affected his capacity to overcome his initial difficulties.
- The deficit perspective leads to a consideration of who should be identified and the process through which this identification takes place. There are both formal and informal means to do this.
- School-based teams have different processes for identification of students who require additional support and what that form will take. There are almost as many different ways of doing this as there are schools.
- Identifying students is an important step in providing extra support. Students who are unable to read experience a wide range of disadvantages, but in particular, they experience a decrease in their measured intelligence over time. It must be remembered, however, that IQ tests are culturally-constructed instruments that really have a great deal to do with what we value and teach in schools. It is not really surprising that one has an effect on the other.

Struggling Readers, Capable Learners - Speaking Points

Slides 14, 15,& 16

- The discussion related to identification models is a highly contentious one in the U.S. In fact, much of the American literature is written either in support or rebuttal of legislation referred to as “No Child Left Behind.” When reading this body of work, it is important to remember that the experience of Canadian students is, in some ways, quite different. Overall, the literacy levels in Canada are much higher (OECD, 2009 available @ http://www.oecd.org/home/0,3675,en_2649_201185_1_1_1_1_1,00.html)
- Prior to beginning a review of the literature, I had never heard of RTI. I was surprised when I read the recommendations of BCASP because a Google Search of RTI and BC Ministry of Education elicited nothing. When I look at these models together, I can see the sense in combining them to support struggling readers. In putting this research and the concomitant recommendations to work, however, the methodologies that should be considered would still be left to individuals to consider.
- RTI fails to account for an intellectually capable child who is able to minimally or even fully meet expectations, but who is not achieving in a manner commensurate to her IQ
- Psycho-educational assessments do not necessarily offer protection to students who have not met the discrepancy criteria; constraints due to Bill 33 may make some districts reluctant to provide the assessments that underpin designation
- The questions of which program to implement and the setting in which it will be most effective remain for teachers to consider. Information regarding the Ministry of Education requirements for service is available within *Special Education Services: A Manual of Policies, Procedures and Guidelines (Rev. Feb. 2011)*.
- The information available in this manual is vague and outlines broad requirements for service.

Struggling Readers, Capable Learners - Speaking Points

Slide 17

- We have talked about the process of identifying students, but there is much more to it than mechanics. These are individuals who sit in our classrooms and struggle to learn every single day. It is a daunting task and, often, they receive very little or ineffectual help to improve their skills.

As we wait for this Youtube video to load, reflect on some of the students you have known who struggled with reading, but who were bright, capable thinkers. We need to work hard for all of our students, but these are the ones whose life chances we can possibly have the greatest impact.

Struggling Readers, Capable Learners - Speaking Points

Slide 18

- **Struggling readers in middle years have been in school for quite a while before the teachers of these grades meet them. It is important for these teachers, who are often not experienced in early reading strategies, to understand the kinds of difficulties and remedial strategies that they have encountered.**
- **As a result of my own experience, I have questioned some of Torgesen's assumptions about reading, particularly with respect to the emergence of reading skills. One of the assumptions of early intervention is that "more is better". We assume that success after the intensification of effort is the result of that increase in instructional intensity. However, I often wonder if what we see is actually the result of readiness.**
- **For example, Finland, whose students have the highest literacy results in the world, does not begin formal education until the age of 7 (NEA, 2011) <http://www.nea.org/home/40991.htm> . They rely very little on formal assessment, but rather promote professional development in content areas and educational theory for all teachers. Very few teachers in Finland have not attained a masters' level education. One of the confounds in this comparison, however, is the nature of the Finnish language which is highly phonetic in nature and therefore more straightforward with respect to orthography.**
- **While there are many programs and interventions described in the professional literature, very few have been externally and rigorously evaluated. This includes programs such as Reading Recovery.**
- **The intensity of focus on early intervention has meant much less effort has been paid to students whose needs emerge later or have persisted since early primary grades. Most importantly, there is a paucity of research that examines whether the results of early intervention are sustained over time.**

Struggling Readers, Capable Learners - Speaking Points

Slide 19

- As a learning assistance teacher, I was very concerned by the results I found in this area of the literature. The research vacuum and the lack of empirically-validated programs mean that these students' needs are either ignored or that precious time of what is left of their years in public education is wasted. If they continue in school, they must cope with senior high school subject areas with wide, unbridgeable gaps in their reading skills.
- The characteristics of these students remain consistent. They present as poor decoders, poor comprehenders and those who struggle with both. Gaps between their reading achievement that of their typical peer group have often widened substantially.
- One of the hopeful pieces of research pointed out that while remediation efforts for students with decoding issues lack consensus, there is a high level of agreement among researchers with respect to the use of strategy instruction to improve comprehension. Few teachers are unfamiliar with strategy instruction. This is the foundation of literacy programs designed by Susan Close, Adrienne Gear and Miriam Trehearne.
- The focus on identifying what good readers do has been very fruitful for many struggling comprehenders. The idea underlying this research is a good one. The question that invites asking is whether we can examine what is known about successfully remediated readers to discover what might be of assistance to their persistently struggling counterparts.

Resources:

Close, S. SMART Reading available at www.smartreading.ca

Gear, A. (2006). *Reading power*. Markham, ON: Pembroke Publishers.

Trehearne, M. (2006). *Comprehensive literacy resource for grades 3 – 6 teachers*. Vernon Hills, IL: ETA Cuisinaire.

Struggling Readers, Capable Learners - Speaking Points

Slides 20 - 23

- For me, this is the hair-ripping part of my research. The topic of service delivery models has caused me extreme concern in my own practice and, although I have come to particular conclusions, often these decisions must be made as a team. We all need to be aware of the issues in this area of research and the ramifications that our decisions have on students.
- When we decide on a reading resource room for students in middle years, it really means that we have side-lined them from regular, intellectually-challenging curriculum and they generally receive the message “loud and clear” that they are not “smart enough” to participate in these activities and lessons. But the question is: what prevents capable thinkers from accessing this curriculum. The answer is: appropriate materials and instructional strategies.
- At the same time, “inclusive” classrooms that do not offer appropriate adaptations and supports for materials and instruction offer another kind of punishment. Over-worked and overwhelmed teachers struggle to meet the needs of the wide array of students before them, often with very little information or assistance.
- When we talk about a combined service model, what we are really advocating for is collaboration among staff members. In middle years, this complex issue involves not only the development of academic skills, but protection from humiliation, support for self-esteem and much more pedestrian issues, such as timetabling.
- My interest in this model has led me to conduct my own action research with colleagues. We explored the pre-teaching of strategies to a group of at-risk readers prior to co-teaching using the strategies that they had practiced in small groups. Our results in the larger group outshone those that had been achieved in small groups in the preceding year. My own feeling is that these students require not only specific instruction in skills, but also the opportunity to see them used by capable peers. The idea that there is an instructional balance required between specific instruction that is teacher-directed and opportunities to practice in an authentic context hypothesized by Manset –Williams and Nelson (2005) might be relevant in this situation as well.

Struggling Readers, Capable Learners - Speaking Points

Slide 24

- **Activity:** While watching this Youtube video, consider what the strengths and challenges of this learner might be. How would you support him in your classroom?
- This morning, we have talked about many of the challenges faced by middle years students who struggle with reading. In this afternoon's session, we will examine their emerging strengths and alternate views of them as learners that better support the ongoing development of their literacy skills.

Struggling Readers, Capable Learners - Speaking Points

Slide 25

- I have to qualify the following information by saying that I have only a very rudimentary understanding of brain development based on very limited reading. However, the general ideas behind this section are foundational to further discussion about directions for reading research and, thus, are relevant to our discussion here.
- With the advent of magnetic resonance imaging which allows neuroscientists to observe changes in the structure of the brain, researchers have been able to identify a second period of critical development that begins during early adolescence and continues until individuals are in their early 20's.
- Grey matter, the working tissue in the brain's cortex, diminishes as the brain matures and this maturation moves from back to front during adolescence. Maturation involves "throwing away" or pruning of unused connections, allowing the brain to work more efficiently. The earliest structures to show these changes are in the extreme front and back areas of the brain that control basic functions, such as sensory processing and movement. The next structures to mature are the parietal lobes which control language and spatial orientation. The latest structures to benefit from this maturation are in the prefrontal cortex which integrates the senses, regulates reasoning, decision-making and other executive functions.
- This understanding of the nature of brain development has significance for middle years students in a number of respects. The proliferation of grey matter sets the stage for increased opportunities to develop connections in areas of the brain that likely support reading capacities, including language, organization and planning, as well as attention controls. We need to consider this in light of research that indicates that very few programs intended to remediate reading are directed to students in this age group. Other researchers have continued this line of research and have begun to piece together the intricacies of this process and how it affects reading.

Resource: Strauch, B. (2003). *The primal teen: What new discoveries about the teenage brain tell us about our kids*. New York: Doubleday.

Struggling Readers, Capable Learners - Speaking Points

Slide 26

- Many researchers have added important information to this body of work. One of the interesting ideas is with respect to reading is that, when we consider phonological processing, we are really looking evidence of atypical processing, not a pathological condition. Unlike the development of speech which is innate in humans, our brains do not come wired to read. Rather, the experiences that occur during early years build the foundation for networks that may form in most people's brains, but this is by no means guaranteed. As a result, it is not surprising that the many remedies that have been devised to address phonological or other processing issues have not solved the problem of reading achievement for our treatment resisters.
- Most importantly, this research speaks to the improvements in capacity in the area of executive function – particularly working memory and attention controls - that have been areas of challenge for these learners in their elementary years.
- The question that remains is how we might use this information in our classrooms today.

Struggling Readers, Capable Learners - Speaking Points

Slides 27

- The terms “metacognition” or “metacognitive strategies” are frequently used within classrooms because of the wide agreement that all readers benefit from their use. However, many teachers, myself included, lack a concrete understanding of these terms and how their underlying meaning can be used to support all middle years students, but particularly those who require specific and explicit instruction.

- The prefix “meta” means about its own category. For example, meta jokes are jokes about jokes, such as -
 - Three men walk into a bar... Ouch! (And variants:)
 - A dyslexic man walks into a bra.
 - Two men walk into a bar... you'd think one of them would have seen it.
 - Two men walk into a bar... the third one ducks.
 - A seal walks into a club.
 - Two men walk into a bar... but the third one is too short and walks right under it.

- Good readers can be metacognitive, metastrategic and use metamemory. Teachers commonly teach metacognitive strategies even to emergent readers. However, the capacity to use this thinking independently and with the capacity to transfer it from one situation to another is under construction in adolescence.

- Joseph (2010) advocates for the purposeful teaching of metacognitive strategies to support reading development in adolescence. She feels that the manner in which content area teaching subsumes instruction in mental processes fails to support struggling learners who benefit from explicit strategy instruction.

Struggling Readers, Capable Learners - Speaking Points

Slide 28

- The recent developments in neuroscience raise exciting possibilities with respect to topics that can be explored that will benefit all students, but particularly those who struggle with what we call “school skills”.
- Perhaps, instead of viewing ourselves as educators, we will begin to see ourselves as “builders of brains”.

Struggling Readers, Capable Learners - Speaking Points

Slide 29

- Review points on this slide.
- Discussion point: Are there any of these research results that you find interesting or question?

Struggling Readers, Capable Learners - Speaking Points

Slides 30, 31 & 32

- Even a brief examination of the literature relating to the relationship between motivation and reading uncovers the reason why motivation is an omnipresent theme in the literature that examines struggling readers.
- Motivation is a word that is thrown around a great deal. When we say “that child is unmotivated,” it has very pejorative connotations. A number of authors examined the foundational pieces of this construct to identify factors that contribute to observable behaviours.
- If we think back to this morning’s activities with “Breaking the Code” and “Jabberwocky”, we can recall the amount of cognitive energy it takes to engage in difficult and unfamiliar tasks. Of course, we want active engagement in our students, but the fact is there are limits and one of the most important ones is motivation.
- For struggling readers, who do not have the skill, the will goes quickly as well.
- Guthrie and Davis (2003) have written extensively about the role of motivation in school achievement and is supported by many other researchers who have explained pieces of this “Catch 22” in reading education.
- Mol and Bus (2011) had a number of recommendations as to how we might increase students’ time on print. One of them was to identify and obtain high interest, low readability materials. I have noticed an increased availability of books for older struggling readers, but this is definitely a problem in school libraries and curriculum collections. One of the ways, I have found to be effective is to change the genre within classroom reading by incorporating large quantities of graphic novels.
- Perhaps the most interesting study I found in this area was Walker and Greene’s (2009) exploration of factors underlying motivation. There is much within this study that provides teachers insights with respect to environmental factors within the classroom that can be identified and fostered to increase inclusion, engagement and safety. This issue also points to the factor of teaching capacity. Clearly, we need to understand more about the psychology of motivation.

Struggling Readers, Capable Learners - Speaking Points

Slide 33

- Many teachers, including myself, involve students in the middle grades in report out meetings for psycho-educational assessment and IEP meetings. I have told myself that this informs a student about learning issues which allows him or her to begin to develop skills of self-advocacy. We presume that students who are avoiding activities or engaging in distracting behaviours will have some awareness of the underlying learning issues. However, this may not always be realistic and we need to remember that learning this important skill is a process, not an event.
- With respect to my own son, I began to involve him in IEP meetings in Grade 7. One of the best things that ever happened to him was the manner in which the school psychologist who updated his assessment in Grade 9 conducted that report out. He spoke directly to my son. He outlined his successes since his last assessment, ongoing issues and ways to manage them. As a result, he began to have some foundational pieces with which to discuss his learning issues with his teachers.
- Alternatively, we can look for parents to assist with this task. Recalling the emerging capacity these students have for thinking about their thinking and the emerging capacity for using higher level cognitive skills, we can conjecture that there could be value in involving parents in teaching self-advocacy skills intentionally through clearly defined IEP goals. Rather than setting goals that are achievement-oriented, such as letter grades, these goals might include establishing the importance of daily, accountable reading, demonstrating support for achievement of IEP goals, providing access to pre-employment experiences and other hobbies, etc.
- As well, when we talk about scaffolding self-advocacy skills, we must also consider motivation. Trying something new has to be rewarding. This is a team effort where initially all members involved have to be willing to listen, reward and provide feedback about communication initiated by students. This has a firm connection to the inclusion, engagement and safety we talked about on the last slide.

Struggling Readers, Capable Learners - Speaking Points

Slide 34

- So what are we asking them to do when we ask them to advocate for themselves? We need our students to be able to identify their strengths and articulate the learning conditions which they require to be successful and “show what they know”.
- But, what does a capable comprehender do to demonstrate those skills when they are confounded by difficulty with decoding?
- This issue is the “elephant in the living room” in reading education. If we return to Torgesen (2000 & 2003), we will recall his concern that students be able to access text in a manner commensurate to their verbal ability. We also know that 4 -6% of students will continue to struggle with reading in spite of the use of best practices in reading education. Many psycho-educational assessments specifically direct that a reader should be provided to the student, but frequently, there is no staff person available to assist this student with reading.
- Technology that allows struggling readers to access print is readily available, but this is not necessarily the case in schools. The Ministry of Education category Q – Learning Disabilities is an unfunded category. This lack of funding means that compensatory supports for these students must be made available through the block funding provided for each student. School districts must allocate these funds to support LD-designated students. I think we are all aware of the financial concerns that exist in most school districts in B.C.
- Rudimentary reader software exists in newer generation computers, however these computers are not necessarily placed in students’ classrooms. The more effective compensatory literacy tools are somewhat expensive, although they are routinely provided to students with low incidence designations through SET BC.
- Edyburn (2007) asked important questions about the timing of compensation versus remediation and the appropriate combination of these strategies. They are currently unaddressed.
- When we talk about using these compensatory strategies, we’re not talking about making it “easy” for students. These are highly complicated tools and required skilled use. The frame that must be placed around this picture is that we all must have the opportunity to access the thinking of others and show our own thinking by using skills available to us. Our struggling readers just need to do this differently.

- **These are links to two software company websites. They are promotional videos that demonstrate both Kurzweil and Naturally Speaking Dragon. They are wonderful tools that have the capacity to ease the load on our students. In fact, they are, quite possibly, the future for all of us. Voice to text software encodes far more quickly than keyboarding can allow. Kurzweil provides assistance with reading and notetaking and is not a big stretch for those familiar with commands and navigation of Microsoft Office products.**

Struggling Readers, Capable Learners - Speaking Points

Slide 35

- If we continue to rely solely on remediation strategies with older struggling readers, what is the fate we are consigning them to?
- I am a huge fan of Dr. Mel Levine. He is an American paediatrician who has written extensively on how schools can best provide support to students who struggle in all areas. He advocates for what he calls “Management By Profile” that involves identifying needs, using strengths actively for support of those needs and, most importantly, protecting the student from humiliation.
- I think Dr. Levine would agree with the reconceptualization of struggling readers offered by Guthrie and Davis (2003). These students are disengaged and that disengagement will often have lifelong costs.

Struggling Readers, Capable Learners - Speaking Points

Slides 36 & 37

- Another support that these students require is feedback that acknowledges their effort and achievement, regardless of the fact that their skills gap continues to be significant.
- The effort to connect teaching and assessment seems obvious, but too often we do not consider the role of specific feedback in progress for all students. This requirement for specific feedback may be particularly essential to our struggling readers.
- The following activity is intended to demonstrate the power of specific feedback in comparison to the other kinds of messages that we can give as feedback.
- **Blind Basketball:**
Instructions:
 - Select one student who will be the basketball player. This student should be well-positioned in the peer group, have good receptive language skills and have capable gross motor skills. This student will leave the room while the remainder of the students receive instructions for the activity.
 - The group should be told that they are going to play a game that will let them see what kinds of feedback help people do very difficult things. In this case, they will help a blind person score a basket. Their role is that of commentators/coaches and they will be offering comments that are progressively more supportive and specific. They must remain silent unless the facilitator indicates it is their turn to comment. These students will stand in a large circle around a small garbage can that is placed somewhere in the circle of students.
 - The basketball player will return to the room blindfolded, be positioned within the circle and be unaware of the location of the garbage can. He will be given a basketball and told that he must score a basket.
 - Students will offer a number of comments from the column on the far left and observe the impact this has on the basketball player. When the ball is thrown, one of the group will return it to the basketball player.
 - As the basketball player shows frustration, the facilitator will direct students to move to the next column to the right.
 - When students get to the specific feedback column, the facilitator may need to provide a model of how comments can be framed as they will be specific to the action.
 - When a basket is scored, the game is over. If a basket is scored earlier in the game, the facilitator can comment on how we can do things right sometimes, but ask how that success can be recreated. The game can continue.

- **Conduct debrief of the game that includes a discussion of how the different forms of feedback felt to the basketball player and how effective they were in achieving the goal. Also discuss the manner in which the demeanour of the audience changed when they became part of the effort through specific feedback which encourages a coaching stance.**

Struggling Readers, Capable Learners - Speaking Points

Slides 38 & 39

- The New London Group (1996) was formed by a number of literacy researchers who met to discuss how communication has changed with the advent of new technologies and the manner in which these technologies had had the effect of increasing communication among people throughout the world. They noted that technology has also meant that messages are now commonly available through forms other than text, specifically sound and images. These authors coined the term “multiliteracies” and advocated for a shift in literacy pedagogy that reflected the need to understand the new multimodal environment.
- In my opinion, this shift has also meant a change in the type of processing we privilege. Text requires strong linear, sequential processing skills whereas multimedia (sound, images, text) often requires a high level of simultaneous processing and inference. These different forms of design require a new array of comprehension skills.
- In fact, if we consider our earlier discussion of cognition, they likely also require a new array of cognitive skills and pathways as well.
- The metalanguage that comprises multiliteracies pedagogy is complex and requires careful consideration. The position statement produced by these authors is one of the most challenging and thought-provoking pieces I have ever read. It is the most important “call to arms” in the field of literacy today and is a foundational piece in the support of struggling readers because it positions them as capable learners who are “knowers”.
- Since it was published, many other authors have sought to operationalize its content for classroom use and provided further rationale for its inclusion in classroom programs. For our purposes today, we will examine one “out-of-school” literacies and how it can be approached in a multimodal, multiliterate manner.

Struggling Readers, Capable Learners - Speaking Points

Slides 40 & 41

- Using multiliteracies in the classroom is not dissimilar to integrated thematic units, however the purpose behind this approach is to recognize and accord respect to funds of knowledge or literacies, not generally privileged in schools.
- By privileging all forms of meaning and meaning making, multiliteracies recognizes the role of both historical and ongoing developments that comprise the sum of human knowledge and experience. Consequently, alphabetic texts are not replaced in lessons and activities, but rather placed alongside other forms of representation or design.
- It is also important to note here that multiliteracies pedagogy is constructivist in nature. The role of the teacher changes from that found in the classic transmission model where to the teacher is the knower and the students are receivers of knowledge. In the constructivist framework, the teacher is a co-creator of collective knowledge. In this model, teachers act as guides, use a gradual release of responsibility and encourage the development of skills by working to extend the student's zone of proximal development. The role of the learner shifts towards independence and self-direction based on an intrinsic motivation to discover and expand his or her own fund of worldly knowledge. (Applefield, Huber & Moallem, 2001). Because of this view, the funds of knowledge and individual strengths that a student possesses become the foundation from which work is done. Hence, the connection to multiliteracies pedagogy is logical.
- One of the important pieces of teaching in multimodal, multiliterate unit is to demonstrate the connections that can be made among sign systems. Some of the most powerful learning opportunities available result from transmediation which is the conversion of an idea from one sign system to another, particularly from text-based representation to an artistic form.
- By modeling of the inclusion of a community/ culturally-based activity such as quilting, we can assist students to see the manner in which the out of school literacies and funds of knowledge they possess can be useful and valuable within the school setting.
- To return to the topic of adolescent development, our middle years students have increased capacity to form connections and engage in thinking about their thinking. Multiliteracies pedagogy promotes and celebrates these capacities and offers new avenues for the recognition and celebration of strengths and skills that have not traditionally been privileged in schools.

Struggling Readers, Capable Learners - Speaking Points

Slides 42 & 43

- To return to the learning intentions for this discussion, we have talked extensively about the challenges, lived experiences and potential of our struggling middle years readers. We have explored their situation by looking through multiple lenses and perspectives. Moving from a deficit perspective that examined their skills and what is not working to a view of these students who are disengaged learners whose energy and enthusiasm for learning can be recaptured through the implementation of multiliteracies pedagogy offers hope for expanded literacy capacity for all of these students.
- Clearly, we cannot address the skills challenges of all students; however, we can foster their strengths and thinking capacity in a manner that encourages the development of lifelong access to literacy that goes far beyond the mechanics of decoding. We cannot allow the phonological weakness or other processing issues to be the gatekeeper to a curriculum of higher level thinking and learning. By levelling the playing field in this regard, we will not only improve the lives of these students, but increase the available creativity and expertise available for us all.

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***Struggling Readers, Capable Learners
Literacy Development
for Middle Years Students***

Participant Feedback

1. Information presented was relevant and helpful to my situation.

No 1 2 3 4 5 Yes

2. Multimodal information was relevant and enhanced my understanding.

No 1 2 3 4 5 Yes

3. I think I have a better understanding of how I can meet the needs of my struggling readers.

No 1 2 3 4 5 Yes

Grade(s) _____ . Subjects taught: _____ .

Other comments: