Developing Strategic Readers in the Middle Years

by

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Abstract

Many teachers struggle to help students transition into reading the more difficult middle school textbook material. After reviewing the literature, it is apparent that a strategic-instructional model is best for teaching reading comprehension at the middle school level. Scholars agree that the cognitive development, motivation and desire for independence of the middle school age group can have a significant effect on reading comprehension instruction. Not unlike elementary reading instruction, the literature emphasizes the importance of a teaching style that involves direct instruction, guided and independent practice, and collaborative learning. Researchers in middle years' classrooms also note the importance of cross-curricular literacy connections and the use of meaningful assessment materials. Scholars agree that there are several major components to an effective comprehension program: predicting, inferencing, making connections, questioning, summarizing, identifying main idea, using text structures and features, and vocabulary development. Based on these components, I have developed a resource that provides teachers with access to materials that support each of these components. These documents are available both in hard copy and electronic form (http://literacy.sd63.bc.ca/mod/resource/view.php?id=82) so that they can be easily adapted and utilized in a variety of classroom contexts. They are meant to be used to target the acquisition of specific skills identified as lacking by classroom literacy assessments. Finally, I close with a reflection on how this resource came to be, and why I see it as an important contribution to the field of reading comprehension instruction.

Table of Contents

Acknowledgements

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Chapter 1

Introduction

As a member of my school literacy team, and a representative on the Middle Literacy committee in my district, I have always been interested in the development and promotion of literacy programming at the middle school level. I am particularly interested in the assessment and evaluation of student literacy, given the dynamic range of skills and abilities that can be found in the middle school classroom. In our district, we are required to formally assess our students twice during the school year, using a literacy assessment called the DART or District Assessment of Reading Team. According to the British Columbia Ministry of Education, the DART "provides information for students and teachers on the three aspects of reading described in the Performance Standards – strategies, comprehension, and response and analysis" (2006, p. 29). More specifically, the DART reports on a student's ability to make predictions and inferences, identify and summarize the main idea, and make connections. Individual schools may choose to use additional assessments, but the DART is the one official district requirement. This resource was developed by teachers in British Columbia, and is utilized by school districts across the province as a comprehension assessment tool for students from Grades 3 through 9. We are also required to send the data from these assessments to the district office, where the information is used to track individual student achievement and help the district to set literacy goals at the middle school level (School District #63, 2010). Due to my position on the school literacy team, I am often asked to help administer the DART in individual classrooms, or to sit on a school committee responsible for the marking of all of the completed assessments. I have enjoyed each of the experiences as I have become

more familiar with the style and structure of the DART, and I feel as though I am in a better position to use the data gained from the assessment in meaningful ways. For example, I am more confident in the interpretation of the assessment data, and am better prepared with techniques to teach individual reading strategies to my students based on their results.

Not all teachers agree with the use of assessments like the DART, however. In 2007, Sooke teacher Kathryn Sihota was sent to a disciplinary hearing after refusing to administer the spring DART to her Grade 3 students (Angerelli, Croll, DeCastro, & Pilgrim, 2008). Sihota believed that the assessment caused her students undue stress and hardship, and that the data collected as a result of the assessment could be provided by teachers without administering the test. While I have not personally experienced any colleagues refusing to administer the test, I have heard teachers express feelings of irritation or annoyance at the timing of the assessment, and a feeling that the results are irrelevant in terms of classroom learning. As someone who always looks closely at the results of the DART at the beginning of the year, I became concerned that my colleagues were not recognizing the value in this assessment of classroom literacy. Yes, it is only one “snapshot” view of their students’ comprehension capabilities, but I believe that it provides a solid starting point for literacy instruction.

I began to think that perhaps teachers were simply unaware of how to proceed once they received the results of the DART. If the assessment showed that their class was struggling to summarize or recall the main ideas in a text, how could they specifically target these strategies while still addressing all of the content of the language arts curriculum? Additionally, where could they find resources to aid in teaching comprehension that were applicable or adaptable for their specific subject areas? Many

teachers were familiar with the use of graphic organizers to help teach reading strategies, but were at a loss as to where to find materials that targeted specific skills. The use of graphic organizers aligns with the recommendations of the British Columbia Ministry of Education, which suggests that students should be able to "visualize, sketch, or use graphic organizers to support comprehension" (2006, p. 365). Unfortunately, many of the pre-packaged reading resources in my district that included these organizers were disjointed, were missing pages, or were simply too young for the middle school age group, and failed to capture the students' interest. I believe that teachers need a collection of easily accessible materials that are sorted by the components of comprehension, in order to target or support the instruction of specific skills. I also believe that teachers need that resource to be available in a format that can easily be adapted or modified to fit the specific needs of their classrooms. Shanahan and Shanahan (2008) state the following:

> Traditional efforts to encourage every content-area teacher to be a reading teacher by pressing them to teach general-purpose strategies have neither been widely accepted by teachers in the disciplines nor particularly effective in raising reading achievement on a broad scale. (p. 57)

Instead, the authors suggest that teachers be involved in creating new reading strategies, or alter existing strategies to best address the specific reading needs of their specialized subject areas. The notion of encouraging reading instruction across the curriculum is supported by the British Columbia Ministry of Education:

> More time for literacy learning does not mean less time for learning other subjects. In fact, literacy learning provides a way into the increasingly complex ideas and texts that students encounter in all subjects as they advance through the

> grades. By integrating literacy learning into all subjects, teachers prepare their students to read and write subject-specific material, help them become strategic thinkers and problem solvers, and provide them with opportunities to apply literacy skills and strategies in many different meaningful contexts. (2006, p. 18)

The Ministry also suggests the purposeful grouping of these strategies into three categories: before reading, during reading, and after reading strategies (2006, p. 22). The curriculum focuses on the teaching of strategies that allow students to access a variety of text types, including oral, written, visual, or multi-media, and emphasizes "both specific strategies to use when interacting with different kinds of text, and more general strategies for self-monitoring, self-correcting, reflecting, and goal-setting to improve learning" (British Columbia Ministry of Education, 2006, p. 17). A strategy-based instructional model, combined with the use of levelled texts, can help teachers to begin to address the diversity of student needs in their classrooms. As the Ministry recommends, teachers should "aim to include all students, working toward common expectations with different amounts of support, different texts, different strategies, and a variety of class organizational patterns" (British Columbia Ministry of Education, 2007, p. 23).

In this project, I review the literature surrounding the development of strategic readers at the middle school level, the components of reading comprehension (predicting, inferencing, making connections, questioning, summarizing, identifying main idea, using text structures and features, and vocabulary development), and successful techniques for teaching these components to middle school students. I explore the process of self efficacy, motivation, and self regulation in middle school learners, and the effects that metacognition can have on the learning process. I also examine the application of literacy instruction across the curricular areas, especially as middle school courses become more

content-driven. Finally, I look at effective methods for assessing reading comprehension, and the implications that assessment can have on classroom instruction.

After reviewing the relevant research, I present a teacher resource that is supported by the literature, and will work in conjunction with classroom-based literacy assessments to aid teachers in accessing reading comprehension strategies that will meet the individual needs represented in their classroom. This resource can also be linked directly to the prescribed learning outcomes and achievement indicators as recommended by the British Columbia Ministry of Education (2006, 2007). I believe this resource will be accessible to both language arts teachers, and to teachers who work in other disciplinary areas. My hope is that this resource will be useful to middle school teachers, and that it will convince them of the value of formalized literacy assessment in the classroom.

Chapter 2

A Review of the Literature

Developing Strategic Middle School Readers

Middle school students are at a unique stage of development that requires its own set of instructional strategies. Both the social nature of the age group and the increased academic demands from the curriculum can cause some students to struggle with the transition from elementary to middle school. According to the research in this area, middle school students have difficulty shifting from the emphasis on strategies for decoding and fluency to an emphasis on reading for understanding (Wharton-McDonald & Swiger, 2009). As Alexander (2009) points out in her lifespan perspective, "reading development is a lifelong journey that unfolds in multiple stages" (p. 413). Alexander refers to three stages of reading development: acclimation, competence, and proficiency/expertise. She notes that while these stages may align in some manner with school structure, they are not "specifically age or grade-related" (p. 422). Despite the developmental range represented in any middle school classroom, vocabulary and comprehension are skills that seem to transcend both age and grade levels (Misulis, 2009). However, the comprehension strategies used by good readers do not always develop on their own (Wharton-McDonald & Swiger, 2009), which means that teachers must "plan time for explicit instruction in specific strategies and their self-regulation" (Brown, 2002, p. 345). By way of direct instruction, most struggling students can be taught to become strategic and competent readers (Brushaber, 2003).

In the following sections, I review several major areas of the literature, including cognitive development in the middle years, motivation and self-efficacy, reading comprehension instruction, independent and collaborative learning, the role of the

teacher, professional development, cross-curricular reading instruction, and methods of meaningful assessment.

Cognitive Development in the Middle Years

The students entering our middle school classrooms are very different than those students at the elementary or secondary levels. In early adolescence, ages 11-14, the biological, cognitive, social and emotional changes that take place have a considerable impact on students' willingness to engage in literacy learning, or in school learning of any kind (Carr, 2002). According to Piaget, this stage of development is called the formal operational stage, where learners "can examine abstract problems systematically and generalize about the results" (Eggen & Kauchak, 2004, p. 45). In contrast to Piaget, who viewed developing children as independent explorers of their environments who learned from their own experiences, Vygotsky "viewed learning and development as arising directly from social interactions" (Eggen & Kauchak, 2004, p. 56). The work of these two influential researchers in educational psychology reflects the complicated interplay that takes place in early adolescence, and the effects that this interplay can have on middle school instruction. As educators, Carr (2002) suggests that we can either learn to work with these changes and build them into our instructional strategies, or ignore them altogether, allowing ourselves to become frustrated by them. These differences are not always as visible as we might think, as noted in Vawter's (2010) work on adolescent development:

> Although we can see the difference in physical maturity, we cannot see the difference in mental maturity. And while we know that physical and mental maturity occur at different rates, middle school personnel often assume that a more physically mature student should also demonstrate an equal maturity in

> mental processes, just as the less physically mature student is assumed to be less advanced in mental maturity. (p. 47)

Developmentally, middle years' students experience much change over the short period of time they are with us, and academically, teachers notice a strikingly similar trend. As Alexander (2009) points out in her lifespan developmental perspective, students at all levels of development can exist at all ages and grade levels (p. 423). Alexander also notes that the fostering of reading development should be "seen as the responsibility of all teachers – from preschool through high school" (2009, p. 431). Even though some emergent readers may not be ready for higher-level strategic reading instruction, research has shown that even struggling readers can benefit from strategy instruction, assisting them to become strategic and competent readers (Brushaber, 2003; Cantrell, Almasi, Carter, Rintamaa, & Madden, 2010). Although some students may internalize the strategic process more quickly than others, it is a valuable endeavour for all students to undertake. The more consistently a practice is guided and modeled, the more likely students are to adopt it as their own (Sporer, Brunstein, & Kieschke, 2009). As noted by Cantrell et al. (2010), "readers at different developmental stages of adolescence may respond to strategy instruction differently, with varying levels of effectiveness" (p. 258). Thus, middle school students require specific instructional strategies to motivate, engage and encourage them throughout their adolescent years.

Motivation and Self-Efficacy

Student motivation and self-efficacy can be integral to the success of a reading program. Self-efficacy is defined as "a set of beliefs that refer to whether one is capable of mobilizing and maintaining the effort needed to achieve a goal" (McTigue & Liew,

2011, p. 114). Based on the developmental challenges facing middle school students as outlined above, keeping students motivated to reach their goals can be a challenging task. How interested a student is in the task at hand can have a dramatic effect on his/her response to the instruction. As Wharton-McDonald and Swiger (2009) point out, "a student will read and comprehend a piece of text not only because he *can* do it, but because he is *motivated* to do it" (p. 515). Motivation can also have a significant effect on skill development: "[M]otivational practices are likely to have positive effects on students' conceptual knowledge acquisition and strategic development as well as on their motivational dispositions and behaviors" (Guthrie, Wigfield, Barbosa, Perencevich, Taboada, Davis, Scafiddi, & Tonks, 2004, p. 416). When students are motivated to read a text due to personal interest, they are more likely to employ strategies to help them comprehend what they are reading.

According to psychologist Erik Erikson, middle school students are in a psychosocial stage of development he calls industry versus inferiority. In this stage, industry (or motivation) develops "when learners acquire a sense of competence through successes on challenging tasks. A pattern of failure can lead to feelings of inferiority" (Eggen & Kauchak, 2004, p. 89). If a student is struggling to comprehend, research has shown that this struggle does not necessarily lead to that particular student seeking help or utilizing relevant comprehension strategies: "Some students decided they would rather not understand a text rather than risk revealing their perceived inabilities to their teacher and/or peers" (Hall, 2005, p. 9). Using a descriptive case study approach, Hall (2005) observed three struggling middle school readers in different classrooms, and tracked how they responded to and worked with text and reading instruction from their respective content-area teachers. Based on state reading tests and informal literacy assessments from

the end of the previous school year, all three students were considered to be below grade level in terms of reading comprehension. All of the selected participants were female, in order to avoid variations due to gender issues. Hall had each student complete a background questionnaire and she conducted student interviews throughout the study to allow her to better understand what was happening in her classroom, and how the students felt throughout the process. Hall found that the manner in which each student approached a reading task in her classroom was directly influenced by how she saw herself as a reader. Two of the three participants in Hall's study viewed themselves as good readers, even though their comprehension scores showed that they were not. Hall pointed out the following as a result of her findings:

> Struggling readers who do not recognize that they have comprehension difficulties may not understand and/or believe that they need to apply specific strategies to help them understand text. Therefore, it is important that teachers be aware that these students may need some additional help in becoming more meta-cognitive about what they read and the degree to which they understand it. (p. 15)

The use of literacy assessments that provide results that are broken down by component skills can help students to recognize where their strengths and weaknesses lie in reading comprehension, and can make them more willing to learn strategies that will aid in their growth and development.

Reading Theories and Comprehension

The reading process is intricate and dynamic, and as a result, it can be difficult to explain or capture using a flow chart or diagram. According to Rumelhart (1994), "reading is the process of understanding written language. It begins with a flutter of patterns on the retina and ends (when successful) with a definite idea about the author's

intended message" (p. 864). Rumelhart views reading as an interactive process which is both perceptual and cognitive in nature. In order to successfully complete a reading comprehension task, "a skilled reader must be able to make use of sensory, syntactic, semantic, and pragmatic information…. [t]hese various sources of information appear to interact in many complex ways" (Rumelhart, 1994, p. 864). Thus, the process of comprehending text cannot be represented in a linear fashion, but rather is a series of interactions that occur on multiple levels. Pearson and Spiro (1982) agrees that an interactive model is most effective: "In interactive processing, students switch back and forth between [bottom-up and top-down] processes – reading a selection with preconceived ideas, but constantly restructuring them to suit the details encountered during reading" (p. 48).

Rosenblatt's (1994) transactional theory of reading also recognizes the role of the reader and text in the construction of meaning. She stated that the "reader and text are involved in a complex, nonlinear, recursive, self-correcting transaction" (p. 1064). In order to ensure that teachers are cultivating these transactions, Rosenblatt notes the importance of dialogue in the classroom environment:

> Dialogue between teacher and students and interchange among students can foster growth and cross-fertilization in both the reading and writing processes. Such discussion can help students develop insights concerning transactions with text as well as metalinguistic understanding of skills and conventions in meaningful contexts (1994, p. 1083).

While the reading comprehension process may be difficult to describe or represent graphically as a result of its complexity, scholars have had much less difficulty determining how to teach it.

Duke and Pearson (2002) note that we have only been able to make rapid progress in the field of reading comprehension research due to a relative lack of controversy about how to effectively teach comprehension. There seems to be a general consensus that comprehension involves the teaching of pre-reading, during-reading and post-reading strategies (Brown, 2002; Cantrell et al., 2010; Davis & Neitzel, 2010; Fisher & Frey, 2008; National Institute for Literacy, 2007; Palincsar & Brown, 1983; Pesa & Somers, 2007; Swanson, Mohammed, Sarojani, & Boardman, 2011; Wharton-McDonald & Swiger, 2009). With research centred on the study of what strong readers do when they read, scholars have reached a consensus regarding the range of strategies good readers use to aid in their comprehension. These strategies include accessing background knowledge and building vocabulary (Brown, 2002; Cantrell et al., 2010; Fisher & Frey, 2008; Guthrie et al., 2004), predicting (Brown, 2002; Davis & Neitzel, 2010; Fisher & Frey, 2008), inferencing (Davis & Neitzel, 2010; Fisher & Frey, 2008; Pesa & Somers, 2007), making connections (Brown, 2002; Davis & Neitzel, 2010; Fisher & Frey, 2008; National Institute for Literacy, 2007), asking and answering questions (Brown, 2002; Cantrell et al., 2010; Davis & Neitzel, 2010; Fisher & Frey, 2008; Guthrie et al., 2004; National Institute for Literacy, 2007; Pesa & Somers, 2007), analyzing text structure (Brown, 2002; Guthrie et al., 2004; National Institute for Literacy, 2007), identifying main ideas, and summarizing and evaluating what has been read (Brown, 2002; Cantrell et al., 2010; Davis & Neitzel, 2010; Fisher & Frey, 2008; Guthrie et al., 2004; Pesa & Somers, 2007). The fact that researchers generally agree about which individual skills make up the comprehension process makes it easier for educators to develop effective programs to teach it. In fact, teaching students specific comprehension strategies can make teachers' jobs easier. As Misulis (2009) notes, "[t]eachers can use comprehension

strategies within subject area instruction to help students comprehend at various levels, to scaffold their learning, and to guide them through a process that they will eventually use independently" (p. 14).

A Shift Toward Independence

The middle school years are an important intermediary phase linking elementary and secondary school. During the relatively short time students are registered in middle school, they must quickly make the transition from learning to read to becoming fluent readers of new information, requiring them to develop independent skills in a number of areas (Wharton-McDonald & Swiger, 2009). Allowing time for independent use of reading strategies can encourage students to become self-regulated learners ((Duke & Pearson, 2002). Pearson's Gradual Release of Responsibility model suggests that "as teachers move from the teacher roles of modelling and direct instruction to scaffolding and guided practice and onto facilitation and participation, they release more and more responsibility to students for completing key tasks" (Pearson, 2009, p. 17). While employing the Gradual Release of Responsibility model, teachers should ensure that they are providing students with multiple opportunities to practice strategies independently. Vygotsky would refer to this transition from dependence to independence as movement through a zone of proximal development, where students complete "a range of tasks that [they] cannot yet do alone but can accomplish when assisted by a more skilled partner" (Eggen & Kauchak, 2004, p. 59). Both the gradual release of responsibility and the zone of proximal development are cited by the British Columbia Ministry of Education as effective instructional guidelines at the middle school level:

> In effective literacy instruction, teachers choose their instructional activities to model and scaffold composition, comprehension, and metacognition that is just

> beyond students' independent level. As students become more proficient in using their new strategies through guided practice and interaction with one another, the teacher gradually releases responsibility for the use of strategies to students in order to encourage independence (2007, p. 22).

As Cantrell et al. (2010) point out, our goal is for "students to become self-regulated learners who [are] capable of independently determining what strategies to use and when to use them" (p. 259). With adequate instructional support throughout the learning process, students can begin to use these strategies automatically and flexibly, in a variety of situations (Cantrell et al., 2010; Fisher & Frey, 2008; Sporer et al., 2009).

When students move toward the bottom right-hand corner of Pearson's model, they are learning to independently match reading strategies with learning tasks. The internal process used to match a reading strategy to a learning goal is called metacognition (Eggen & Kauchack, 2004). In order to encourage the development of metacognition or self-regulation in students, teachers must engage their students in the constant practice of asking questions about their own learning, and the effectiveness of their strategy use. Part of this process involves goal setting and evaluation. Dennis (2010) suggests that teachers should also have middle school students begin to set goals related to their personal development with regard to the use of reading strategies. This involves setting personal literacy goals, and asking students for suggestions regarding how their growth will be monitored. Involving students in this goal-setting process can foster the growth of independence, self-regulation, and metacognition. The British Columbia Ministry of Education also recognizes the value of teaching students to become metacognitive:

> Students who can monitor their learning, assess their strengths and weaknesses, and set goals for improvement become independent, lifelong learners. By thinking about how they think and learn, they gain personal control over the strategies they use when engaged in literacy activities. (2006, p. 17)

In summary, the researchers cited in this section seem to agree that if the goal is to create self-regulated learners who can apply their literacy skills in a variety of contexts, then students must develop an adequate suite of effective strategies that can be used collectively to aid in their independent access of new material. These strategies should include prediction, inference, connecting, asking questions, analyzing text features and vocabulary development. As middle school learners transition between elementary and secondary school, their ability to evaluate the progress of their own learning, set goals for themselves, and assert control over and regulate their own academic development will be integral to their success. Teachers need to ensure that students have been explicitly instructed in the use of these strategies, and that they have been given the time to practice the independent use of these strategies over the course of the school year. In the following section, seven of the major reading comprehension strategies (predicting, inferencing, making connections, questioning, summarizing, identifying main idea, using text structures and features, and vocabulary development) are described in further detail.

Predicting.

According to Duke and Pearson (2002), prediction is better viewed as a family of strategies, including activating prior knowledge, previewing and overviewing, rather than a single, identifiable strategy. In a study of 20 first through fifth grade classrooms, Ness (2011) examined over 3,000 minutes of classroom observation to determine how often explicit reading comprehension instruction was being incorporated into classroom

lessons. Comprehension instruction was said to have occurred when there was an explicit description of a reading strategy, teacher or student modeling of the strategy in action, or guided or independent use of the strategy. During her study, Ness (2011) observed prediction as one of the top three strategies being taught by teachers in their classrooms. Ness suggested that the prevalence of prediction may be due to the teachers' unfamiliarity or lack of confidence with teaching other comprehension strategies. Nevertheless, predicting is an important strategy for readers to use. Predictions can be used before a student begins reading, and also as the student reads, to test whether or not the text is making sense. In other words, the predictions become hypotheses to test as the student is reading (Neufeld, 2005). Brown (2002) notes that this strategy can be an important part of developing independence in reading comprehension. As students make predictions, they can track their success with the strategies using a variety of methods such as journals, checklists or reflection sheets. The metacognitive aspect of such reflections "facilitates the kind of evaluative thinking that is part of self-regulating comprehension processes" (Brown, 2002, p. 346). Duke and Pearson (2002) remind us that the accuracy of student predictions is not of the utmost importance, but rather that prediction is more about the process of activating and engaging students in the reading process.

Inferencing.

Inferencing is defined as "the ability to use two or more pieces of information from a text in order to arrive at a third piece of information that is implicit" (Kispal, 2008, p. 2). It is also viewed as the "bedrock of comprehension" (Harvey & Goudvis, 2000, p. 105), however it can be a difficult reading strategy to teach. In a 2005 study of 38 students from Grades 3 through 7, Bowyer-Crane and Snowling used two different

assessments to examine the ability of poor comprehenders to make six different types of inferences: cohesive (based on textual clues only), knowledge-based (based on reader's own knowledge), elaborative (predicting possible outcomes), literal (required no inference), vocabulary (understanding required knowledge of key word), and evaluative (emotional outcomes of an event). The findings of this study showed that both poor and skilled readers had the most difficulty with questions that required them to make knowledge-based inferences, and had less difficulty with literal or cohesive inferences (Bowyer-Crane & Snowling, 2005). The stronger readers were more successful with knowledge-based inferences than the weaker readers as they had more access to strategies to help them connect the text with their own knowledge. Bowyer-Crane and Snowling suggest that while children with comprehension difficulties may be in possession of the knowledge needed to answer a specific question, they may be unaware of the need to access this information, or unable to do so due to a lack of strategies. In other words, some of the main differences between skilled and less-skilled comprehenders lie in the strategies used during reading, and in the ability to use general knowledge to help them interpret a text. Bowyer-Crane and Snowling (2005) maintain that all "children with comprehension difficulties would benefit from support in the use of real-world knowledge to generate inferences while reading" (p. 199). These strategies can enable them to make strong connections between what they are reading and what they already know.

Making connections.

In terms of reading comprehension, making connections is vital as a student's understanding is shaped by his or her prior experience with the topic (Lenski, 1998). In order to construct meaning, good readers constantly revise new information, ask

questions to clarify meaning, and reconstruct new ideas in order to reassemble them into their network of knowledge (Duke & Pearson, 2002; Lenski, 1998). Pearson and Spiro (1982) refer to this network of knowledge as *schema*, or "an abstraction of experience that you are constantly fine-tuning and restructuring according to new information you receive" (p. 47). Piaget would agree that "all cognitive growth is relative to existing knowledge. New information is never directly perceived or directly added to memory. Instead, new information is always interpreted in terms of existing knowledge" (Mayer, 1987, p. 21). In the interactive model of reading comprehension Rumelhart (1994) suggests that as reading takes place, "all of the various sources of knowledge, both sensory and nonsensory, come together at one place and the reading process is the product of the simultaneous join application of all the knowledge sources" (p. 879). In other words, all new information that students acquire will be balanced against knowledge they already possess, and will be validated or refuted based on this knowledge. This view also aligns with Rosenblatt's transactional theory of reading (1994), in which she suggests that "[e]very reading act is an event, or a transaction involving a particular reader and a particular patter of signs, a text, and occurring at a particular time in a particular context" (p. 1063). Rosenblatt suggests that during this transaction, meaning occurs. In order to develop good readers, research suggests that good readers make connections to things they already know, things they have previously read, or things they have experienced in the world. In his study of eight high school students, Hartman (1995) examined the intertextual connections that strong readers made as they read across five passages. While this study took place in a high school, half of the participants were juniors, ranging from Grades 8 through 10, which makes the data relevant to the middle school age group. While reading silently, the students were asked

to report aloud their thoughts and then respond to questions regarding their reading. Hartman (1995) found that the intertextual connections made by the students fell into two categories: “(1) links among ideas, events and people, and (2) social, cultural, political, and historical connections” (p. 521). Hartman (1995) also found that “interest, novelty, and affect were powerful shaping forces in their linking” (p. 557). As a result of his findings, Hartman reminded teachers that even when students complete a similar reading task, they may have completely unique ways of constructing meaning from the text based on their own personal experiences.

Gritter (2011) tells us that “[p]ermeable text discussion occurs when students use their prior knowledge to make text-to-self, text-to-world, and text-to-text connections and share the knowledge gleaned from those connections with peers and teachers to develop new learning (p. 445). Some scholars say that teachers can foster the development of these connections in their classrooms by clustering like texts together, encouraging student connections, or by asking questions that promote intertextuality (Lenski, 1998). Some of the most effective questioning strategies for developing comprehension are outlined below.

Asking questions.

Of all of the major comprehension strategies, none is longer standing or more prevalent than asking students questions about their reading (Duke & Pearson, 2002). Scholars agree that question asking and answering serves as a framework that drives all other comprehension strategies (Neufeld, 2005; Raphael & Au, 2005). Scholars also agree, however, that student-generated (rather than teacher-generated) questions throughout the reading process are most effective in terms of the development of reading comprehension (Duke & Pearson, 2002; Dymock & Nicholson, 2010), and that

generating questions is a good way to “process text and monitor comprehension” (National Institute for Literacy, 2007, p. 20). According to Gunn (2008), “questioning solicits and cultivates metacognitive and self-regulatory knowledge, skills, and strategies by way of comprehension monitoring, creativity, increased attention, and higher level thinking” (p. 408). In a study of 28 Grades 4 and 5 students, King (1994) compared two different guided cooperative questioning strategies: lesson-based questions and experience-based questions. Using a variety of teacher-generated question stems (What would happen if..., What are the strengths and weaknesses of...) students generated their own questions, and then worked in small groups or pairs to ask and answer these questions with their peers. The experience-based questions stems went beyond the material being studied in class, and were specifically created to generate questions that would access students’ prior knowledge and experience. The purpose of the study was to explore the effects of these strategies on immediate comprehension and retention of information over time. The science students who took part in the study were compared with a control group who received no guided questioning strategy whatsoever. The findings of King’s (1994) study demonstrated the following:

> [W]hen children use questions that guide them to connect ideas within a lesson together or connect the lesson to their prior knowledge, they engage in complex knowledge construction which, in turn, enhances learning; and these learning effects are stronger for questions that connect to prior knowledge. (p. 361)

The experience-based questioning strategy led to increased retention of learned material as well. Perhaps most significantly, the students who were guided by the experience-based question stems were more likely to ask high-level, knowledge-integration questions in subsequent lessons as opposed to the control group who asked lower-level, fact-based

questions. These findings support the fact that the question-generating process needs to be guided by teachers and scaffolded for students for them to be able to engage in generating effective questions of their own.

The National Council for Literacy (2007) suggests a balance between questions that require implicit and explicit information found in the text, implicit information found in the text and in the reader's prior knowledge and experiences, and implicit information found in the reader's prior knowledge alone. Raphael and Au (2005) have formulated a teaching strategy based on this list which they term a question answer relationship (QAR). In this framework, students are asked questions they call "In the Book, In My Head, Right There, Author & Me, Think & Search and On My Own" (Raphael & Au, 2005, p. 209). In the Book questions require the reader to consult the text (Right There, Think and Search), while In My Head questions require the reader to rely on their own knowledge in order to answer the question (Author and Me, On My Own). Teachers can use QAR to guide their own questioning framework, as well as to teach students how to ask and answer the most appropriate questions as they read. According to Raphael and Au (2005), "QAR instruction can be adjusted for use across grade levels and content areas because of the way the categories form a progression of difficulty" (p. 213). The framework has also been shown to improve reading comprehension:

> Consistent QAR instruction across the grades and school subjects establishes the foundation for improved reading and listening comprehension. By the time students are in intermediate grades, those who have received consistent QAR instruction develop sophisticated strategies to analyze questions and use appropriate strategies and language for formulating good answers. (Raphael & Au, 2005, p. 216)

In summary, explicit instructional focus on asking and answering questions seems to increase overall student comprehension.

Main idea and summary.

According to Block and Pressley (2003), summarizing is "the ability to delete irrelevant details, combine similar ideas, condense main ideas, and connect major themes into concise statements that capture the purpose of a reading for the reader" (p. 117). Research has shown that the act of summarizing a text can enhance a student's comprehension of that text (Dymock & Nicholson, 2011). Also, teaching students to state in their own words what they read can be a useful way to quickly check whether students are grasping the main ideas and most important details in what they are reading (Brown, 2002).

In their study of sixth grade students with learning disabilities, Hoppes, Jitendra, Wilson & Cole (1997) examined the effects of direct instruction on main idea summarization skills. Four participants took part in the study, and three received direct instruction in main idea summary and self-monitoring skills. The fourth student served as the control for the experiment, and received no instruction in these skills. The intervention involved seven scripted lessons which were followed with main idea comprehension worksheets. The self-monitoring aspect of the intervention was taught using prompt cards that contained the steps for accessing the main idea in a passage. Hoppes, Jitendra, Wilson, and Cole (1997) discovered that main idea summarization skills increased after explicit teacher instruction, and that students were able to transfer the summarization skills they learned to other types of text. While the students showed significant improvement in self-monitoring skills during the intervention, these skills were not maintained over time, and the researchers suggested that consistent

reinforcement of this process would be necessary in order to obtain long-term maintenance of the strategies.

When teaching summarization skills, there is evidence to support the use of graphic organizers to aid the process. According to Bulgren, Marquis, Lenz, Schumaker, and Deshler (2009), graphic devices are "tools used to enhance learning by mirroring strategic thinking processes needed to understand critical content. [They] help students learn by providing an illustrative 'road map' that makes the process of learning about concepts and relationships visually explicit" (p. 274). In Westby, Culatta, Lawrence & Hall-Kenyon's (2010) study of Grade 4 and 5 students, the researchers worked with teachers to implement an instructional model for teaching summarization of expository text. This model involved the study of text organizational structures such as cause and effect, compare and contrast, description, and problem-solution. Students were then asked to generate or choose an appropriate graphic organizer to aid in their summarization based on the structure of the text. In the intervention classrooms, students showed an improvement in their summarization skills after using the organizers.

Research has also shown that graphic organizers must correspond with the organizational structure of the text, otherwise they will simply get in the way of student comprehension (Neufeld, 2005). For example, while a Venn diagram would be useful for summarizing the main ideas in a compare and contrast text, it would be useless if the text being summarized was organized in a cause and effect structure. According to Neufeld (2005), the eventual goal is for students to learn to rely less on teacher-created organizers and to be able create and use these visual organizers on their own. At this stage, students are considered to be self-regulated learners who are capable of functioning strategically

on their own (Cantrell et al., 2010). Self-regulation is an important part of the process of becoming a strategic reader.

Text structures and features.

According to Neufeld (2005), text structures are the organizational logic of a text, or the manner in which the information in a text is organized for presentation. He notes that texts may use organizational structures like "enumeration, time order, compare and contrast, cause and effect, problem/solution and description" (2005, p. 305), and that students can be taught to recognize these structures. The British Columbia curriculum documents suggest that attending to text structure is "an aid to comprehension, since knowing the structure … gives the reader clues about its content" (British Columbia Ministry of Education, 2007, p. 130). Scholars agree that students should to be taught to take advantage of these structures, not just ignore them, and to use this information to support their comprehension (Brown, 2002; Dymock & Nicholson, 2010; National Institute for Literacy, 2007). According to their research, Kelley and Clausen-Grace (2008) found that intermediate students often ignore essential text structures when reading expository text, despite previously learning about their importance, and suggest that explicit teacher instruction is key to the retention of this strategy. This instruction includes teaching students to recognize how specific words can provide clues as to how the text is organized, like *because*, *since*, *consequently* (cause and effect) or *first*, *next*, *finally* (enumeration) (National Institute for Literacy, 2007; Neufeld, 2005).

As students shift to more dense informational texts at the middle school level, they must also learn how to differentiate between important information and extraneous details (Bluestein, 2010). Bluestein suggests that this involves a focus on features like the table of contents, headings and subheadings, summary statements, and bold text. The

British Columbia Ministry of Education refers to these elements as text features, and concurs that they can be “helpful in supporting comprehension” (2007, p. 130). Students who attend to text features can use them to help make predictions and guide their reading (Brown, 2002; Kelley & Clausen-Grace, 2010). In addition, attention to text features results in an increased student ability to summarize and identify the main ideas in expository text, which leads to greater comprehension of text (Westby, Culatta, Lawrence, & Hall-Kenyon, 2010).

Vocabulary.

Helping students understand the vocabulary in academic text involves a number of strategies, including pulling words apart, putting them together, defining them informally, practicing them in speech and explaining them in writing (Kelley, Lesaux, Kieffer, & Faller, 2010). In her study of seven urban middle schools, Kelley et al. designed an 18 week vocabulary program for implementation in Grade 6 language arts classrooms. The researchers used text samples from magazines that they believed would be engaging for middle school students, and that contained a group of eight or nine high-utility academic words. Teacher support was provided throughout the 18 week program by way of classroom observation and teacher-researcher meetings. The findings of the study showed that students in the program showed significantly better results on multiple choice tests of academic words following the intervention, as well as improvement on a test of general reading comprehension. As a result, the researchers recommend using short, engaging text to teach vocabulary, as well as providing time for students to collaborate and talk with their peers, and direct instruction of specific strategies for word learning. According to Wharton-McDonald and Swiger (2009), the more words that a student knows, the more likely they are to learn new words: “[C]hildren who enter the

intermediate grades with weak vocabularies are not able to take advantage of richer texts, and because they spend less time engaged with richer texts….they fall farther and farther behind" (p. 513).

So what can middle years' teachers do? In a 2007 study, Fore, Boon and Lowrie examined vocabulary instruction for students with learning disabilities at the middle school level. Working with six Grade 7 math students, the researchers compared the use of two different instructional models for teaching vocabulary, a definition and a concept model. In the definition model, students wrote down the words along with the definitions, and were asked to use the words in a sentence of their choosing. In the concept model, the students worked with the teacher to discuss the definitions and characteristics of the key words, as well as to generate both examples and non-examples. Students were evaluated using a pre-test and post-test to determine which instructional method was most effective. The findings of the study showed that all six students showed significant improvement following the concept model of instruction, with a mean increase of over 40%. As a result, the researchers suggest that "the concept model, as a method of direct instruction, should be explicitly taught to students to facilitate independent word learning" (Fore, Boon, & Lowrie, 2007, p. 66). In addition to subject-specific vocabulary instruction, Kelley et al. (2010) suggest that teachers should "choose a small set of high-utility academic words students need and use those as a platform for teaching word learning, increasing academic talk, and promoting more strategic reading" (p. 9). Overall, research has shown that the most effective way to teach vocabulary is to balance the direct teaching of words with word-learning strategies, so students are capable of learning new words independently (Kelley et al., 2010). After learning each of the component strategies of reading comprehension, students must be provided with the opportunity to

practice using them independently through the Gradual Release of Responsibility model that was described previously.

Instruction of Multiple Comprehension Strategies

Much of the relevant research in the area of teacher instruction stems from a guided practice model, which is a general instructional framework that can be used with any number of reading strategies. Current reading comprehension research supports this model, suggesting that explicit teacher instruction should be followed by guided practice which eventually leads to independent use of the reading strategies (Brown, 2002; Misulis, 2009; Sporer et al., 2009). Transactional strategies instruction (TSI) is an instructional strategy that aligns with the guided practice model. However, TSI focuses on "the teaching of a small set of research-based [comprehension] strategies within the context of collaborative text discussions (Brown, 2008, p. 539). The emphasis is on teacher and students working collaboratively to derive meaning from text, with the teacher serving as the expert who models the strategy use for the students. The comprehension strategies taught in TSI include making connections and inferences based on background knowledge, predicting, visualizing text content, self-questioning, summarizing and identifying main idea, and clarifying or problem-solving skills (Brown, 2008).

Reciprocal teaching, as first developed by Palincsar and Brown (1983), is a more specific instructional strategy that involves a collaborative effort between students and teachers to create meaning from text. It focuses on four reading strategies: predicting, clarifying, questioning and summarizing. It also aligns with the guided practice model, as it involves teachers and students working together to utilize reading strategies. Palincsar and Brown's work showed that the reciprocal teaching process should include practice

with task-appropriate strategies, explicit instruction, self-monitoring during skill use, and time to reflect on how and where the strategies could be best utilized.

In a 1999 study, Kahre, McWethy, Robertson and Waters examined the effects of a reciprocal teaching framework on the development of reading comprehension. The researchers targeted four classrooms, including kindergarten, fourth, fifth, and seventh grade, where students seemed to lack the skills and strategies needed for successful comprehension of text. The students completed a survey that provided information on whether or not they were using appropriate reading strategies, and were also assessed with an informal reading inventory to determine their reading levels. Pre-intervention, it was determined that the students reported using few or no strategies during reading. The intervention involved the implementation of reciprocal reading strategies, including summarizing, questioning, predicting, and clarifying. In the fifth grade classroom, students were given an overview of the four strategies during the first two weeks, and then were encouraged to practice the skills independently in guided and independent reading over the subsequent weeks. The fifth grade students also served as reading partners for the kindergarten students, and modelled the reciprocal teaching strategies with their partners during shared reading activities. As a result of the interventions, the researchers noted several positive effects of reciprocal teaching on reading comprehension:

> Fifth graders not only enjoyed assisting their kindergarten partners, but also gained skill in the use of the reciprocal teaching strategies. By helping the kindergartners expand language in their dictated responses, the fifth graders also expanded their own use of the strategies and language. (Kahre, et al., 1999, p. 44)

In addition, after completing a post-intervention reading inventory, improved reading levels were shown for 11 of the 13 targeted Grade 5 students, and students also reported an improved awareness about the use of reading strategies for comprehension.

Many researchers agree with the tenets of a guided practice model of instruction, emphasizing the importance of teacher modelling, guidance and time for student practice (Brown, 2002; Cantrell et al., 2010; National Institute for Literacy, 2007; Pesa & Somers, 2007). In Cantrell et al.'s 2010 study of strategy-based intervention on struggling adolescent readers, the researchers describe an intervention with two basic components: (a) a whole-school model that involved professional development for all content teachers, and (b) a targeted intervention for selected sixth and ninth grade students who scored at least two grade levels below their peers in reading comprehension. This extensive study included 23 teachers and 862 students from 23 different schools. The researchers compared outcomes between students who received direct instruction in word identification, visual imagery, self-questioning, paraphrasing, and sentence writing, and those who did not receive this intervention. The instruction involved a pre-test, modelling and direct instruction, guided practice and feedback, and a post-test. The most interesting finding of this study was that "the intervention had a positive impact on sixth grade students' reading comprehension, but had no significant impact on ninth-grade students' reading comprehension or reported strategy use over the course of a school year" (Cantrell et al., 2010, p. 269). This reinforces the importance of implementing reading intervention programs during early adolescence, and that waiting until students reach high school to teach reading comprehension may be too late.

In a similar study, Pesa and Somers (2007) targeted Grade 7 and 8 classrooms where students demonstrated an inability to select and apply appropriate reading

strategies to both fiction and non-fiction text. This study took place at one middle school, with a population of 830 students. Parent surveys were administered at the beginning of the study to gain an understanding of the types and frequency of reading taking place in the home environments. The study involved explicit instruction of core reading strategies, including self-monitoring, visualizing, questioning, determining main idea, making connections, inferring and summarizing. Students worked both independently and in collaborative groups and were given the opportunity to apply learned strategies across the curriculum. The results of this study showed that the intervention resulted in an improvement in overall reading comprehension. Also, as a result of the instructional style used in the study, students became more aware of how to "approach reading as a process in which they must apply the appropriate methods, [and with] this realization, students applied reading comprehension strategies more regularly" (Pesa & Somers, 2007, p. 57).

As highlighted by the above two studies, the reflection component is vital, as students must learn to monitor and regulate their own comprehension throughout the reading process in order to progress (Brown, 2002; Cantrell et al., 2010; Palincsar & Brown, 1983). According to Zimmerman (1989), self-regulated students "initiate and direct their own efforts to acquire knowledge rather than relying on teachers, parents or other agents of instruction....[and] use specified strategies to achieve academic goals" (p. `329). The self-regulation process needs to be modelled and guided at first, as students slowly learn to become more responsible for their own learning. As students become more strategic readers, ideally they will need less support from their teacher to comprehend what they are reading.

Pearson (2009) notes that questions have arisen as to whether strategies should be taught alone, or as a set of strategies from which students are required to choose the most

appropriate for the task at hand. Brown (2002) argues that strategies taught in isolation actually counteract the goal of creating more independent learners. She suggests that while strategies may be introduced one at a time, they should still be taught as parts of a suite of strategies that work together to aid in developing comprehension. By teaching students a collection of interrelated comprehension strategies, they can begin to acquire the skills necessary to select the appropriate tool for the required task. The National Institute for Literacy (2007) concurs, noting that "[g]ood readers use strategies in clusters….Students need to learn and practice individual strategies, but they also need to learn how to use clusters of strategies to aid comprehension" (p. 26). For instance, during reading, strong readers question to clarify misunderstandings, and after reading, they summarize and predict what might happen next (National Institute for Literacy, 2007). The Institute suggests that direct, explicit and systematic instruction will show students how clusters of strategies can work together to aid in comprehension. Duke and Pearson (2002) concur, suggesting that "[s]trategies are not to be used singly – good readers do not read a book and *only* make predictions. Rather, good readers use multiple strategies constantly" (p. 210).

In a 2009 study, Sporer et al. worked with 210 Grade 3-6 students from two different schools in order to test the effects of strategy-based reading instruction and reciprocal teaching on their reading comprehension skills. One school was assigned to be the control group, where no reading intervention occurred, while the other school received reading strategy instruction over a period of seven weeks, taught using a discussion, modelling, and practice framework. Students' reading comprehension was tested using a pre-test and post-test, as well as with a follow-up transfer test, which was administered 12 weeks after the intervention. The results of the post-test showed that

students in the intervention group were better able to use the strategies of summarizing, questioning and predicting when reading text. The students who received intervention also scored much higher in terms of overall comprehension on the follow-up transfer test. As a result of their research, Sporer et al. “confirmed the efficacy of explicit reading instruction as a feasible tool to enhance students’ reading comprehension” (p. 284).

The literature also notes the importance of choosing a smaller number of effective strategies and emphasizing these strategies clearly over an extended period of time. The latter is much more effective than bouncing from one strategy to another or teaching too many strategies on a superficial level (Brown, 2002; Gude, Jackson, & Shaw, 2000). In their action research project on strategies for improving reading comprehension in the content areas, Gude, Jackson and Shaw (2002) targeted students in first, fifth and eight-grade classrooms, who exhibited poor comprehension skills when reading in all content areas, with direct and explicit instruction in strategy use. Both student and parent surveys were administered to determine how home environments impacted academic success, and pre-intervention and post-intervention assessments were given to track student progress. The results of the study showed that the interventions had a positive effect on comprehension skills for students, even across the age range. The researchers determined that the consistent use of techniques yielded greater success, and recommended choosing three to five effective strategies and focusing on them.

Strategic Reading Across the Curriculum

“Reading is commonly viewed as a basic set of skills, widely adaptable and applicable to all kinds of texts and reading situations” (Shanahan & Shanahan, 2008, p. 40). In order for students to experience success at the middle school level, they must be able to successfully transfer the literacy skills they learn in their language arts classroom

to help them access the content in other courses. In order for this transfer to take place, content area teachers must utilize literacy strategies in their classrooms. As Pesa and Somers (2007) note, the role of content area teachers is to “align methods of instruction with the reading strategies taught in language arts classes to enhance understanding and interest” (p. 33). Pesa and Somers even go so far as to suggest that it is not the role of content area teachers to provide direct instruction of reading strategies, but rather to simply reinforce the strategies the students have already acquired. This view may be welcome news for subject area teachers who may feel as though just getting through the curriculum is challenging enough. Misulis (2009) concurs, noting that some “educators consider that content literacy instruction is one more addition to their instruction and that time is not available for anything other than focused teaching of content” (pp. 11-12). Due to the time constraint that teachers are often under, instructional practices must be “manageable to plan for and to implement within the context of a busy instructional day” (Misulis, 2009, p. 12).

Not all scholars agree with Pesa and Somers, however. The National Institute for Literacy (2007) emphasizes that direct instruction of reading strategies is the responsibility of all teachers in the school, including specialists. Brown (2002) questions whether or not students will transfer their acquired comprehension skills into classrooms where direct instruction does not exist (p. 347). If content area teachers don't recognize the value in a strategic instructional framework, the chance of effective student reading is diminished. A team approach seems to make the most sense. If teachers have time to collaborate and discuss which strategies they will be focusing on over a given period of time, students are bound to benefit from seeing these strategies reinforced across the

curriculum. And as Goodman (2005) reminds us, our "[s]tudents deserve explicit, sequenced instruction from all of their teachers in a meaningful, connected way" (p. 12).

In addition, teachers must feel as though the chosen strategies are going to be useful to them in their disciplinary areas. Further, as Shanahan and Shanahan (2008) comment, teachers should have the flexibility to alter these strategies to best fit the demands of their particular subject area, allowing them to "directly and explicitly address the specific and highly specialized disciplinary reading demands of chemistry, history and mathematics" (p. 57). Content teachers are the best resources for students in terms of the reading demands of their particular subject areas. Using the teaching strategies outlined above, content area teachers can model and guide instruction for their students, enabling them to better adjust to the reading demands of specialized subject areas.

Meaningful Assessments of Reading

According to the National Institute for Literacy (2007), "[e]ffective instruction depends on sound instructional decision-making, which, in turn, depends on reliable data regarding students' strengths, weaknesses, and progress" (p. 27). Duke and Pearson (2002) agree, noting that assessment should be ongoing in order to be effective. In order for reading comprehension instruction to be useful, it must be accompanied by relevant and timely assessment of student progress. A major complaint about standardized reading tests is that they provide only a picture at one point in time; a view that may not be truly representative of that particular student's capabilities (Fiene & McMahon, 2007). Rosenblatt notes that "[t]he dependence on single instances of reading in assessing an individual's abilities is currently being called into question" (1994, p. 1088). Researchers agree that no one assessment technique is perfect or should be used in isolation, as individual tests are not sufficient indicators of student ability (Alvarez & Corn, 2008;

Ediger, 2000; Fiene, McMahon, 2007; Rosenblatt, 1994). Instead, many scholars contend that reading comprehension should be assessed over time (Allen & Flippo, 2002), and with a variety of strategies (Doecke, Reynolds, & Roberts, 2002; Ediger, 2000; Mokhtari, Rosemary, & Edwards, 2007).

Some scholars maintain that a student's capabilities cannot be captured accurately by one test, and that many students with non-traditional literacy skills might not even be recognized by traditional assessments (Ma'ayan, 2010). In her case study of a failing student at a public, urban middle school in the United States, Ma'ayan used personal interviews, observations and work samples to examine the literacy skills of a young girl, Erika, who was deemed 'at risk' by her teachers. Erika was an impoverished, Hispanic middle school student, whose standardized tests had placed her in the 25th percentile for reading ability. Ma'ayan noted that the majority of Erika's "experiences, knowledge, and texts were not sanctioned within formal school settings. Her reading of the world… had little place within acceptable public middle school discourse….Erika was left to either stay silent or develop her literacy on her own" (Ma'ayan, 2010, p. 653). Ma'ayan's study emphasizes the fact that traditional literacy assessments are not capturing the capabilities of many of our students.

Most importantly, effective teachers recognize that "language and literacy comprise an extraordinary range of skills which are embedded in a complex network of human relationships and contexts" (Doecke, Reynolds, & Roberts, 2002, p. 7). In four separate case studies, Doecke, Reynolds and Roberts examined the validity of standardized testing and the implications it can have on teachers. They found that beginning teachers might put more faith in test results than in their own professional judgement, and that there is a growing tendency of school districts and governments

toward favouring test results over the professional judgement of all teachers (Doecke, Reynolds, & Roberts, 2002, p. 5). The authors note that while "teachers have always been prepared to use standardized testing in order to assess students' performances…they are also conscious of the limitations of such testing, and the need to employ other forms of assessment" (Doecke et al., 2002, p. 7). The complex network of literacy skills described in their study could not be effectively represented by a single, 'snapshot' assessment; reading comprehension and language acquisition are dynamic and fluid processes that require the active involvement of a supportive teacher in order to fully develop.

While they may not be endorsed by researchers as the only method of assessing student reading comprehension, standardized tests are still considered useful by some scholars. Westwood (2009) stated that testing is the most neutral, accurate and manageable way to determine exact student knowledge and skills. Instead of abandoning standardized testing altogether, some scholars encourage teachers to imagine it as, for example, a jumping off point for their instruction; as a way to discover which skills their students lack. They should see it as assessment *for* learning and not just assessment *of* learning (Angerelli et al., 2008).

In order for an assessment to effectively inform teacher practice, it must analyze student results by component skills. The major criticism of standardized tests in the literature is that they tell us where students are on a continuum from low to high, but not what abilities the readers already possess or what skills they need to work on (Bauer & Garcia, 2002; Dennis, 2010; Fiene & McMahon, 2007).

Bauer and Garcia (2002) examined the use of alternative literacy assessments in their study. For the purpose of their research, they considered alternative forms of assessment to include student portfolios including both reading and writing samples,

teacher observations and student self evaluations. The researchers reported the following findings:

> A link between assessment and instruction can occur when assessment provides information on the process of learning, when assessment results are shared with students, and when there is a classroom organization that supports frequent, informed interactions between teachers and individual students. (Bauer & Garcia, 2002, p.491)

In 2007, Fiene and McMahon conducted a study that focused on the classroom-based assessment of reading comprehension. Working with a Grade 4 classroom teacher, the authors examined the use of classroom-based assessments used during student reading, like student journaling, student work samples, student-teacher conferencing, and student think-alouds. As a result of the study, Fiene and McMahon determined that the quality of student work changes daily, depending on "texts, motivation, and student needs" (2007, p. 417). Therefore, like Bauer and Garcia, Fiene and McMahon believe that teachers should assess student comprehension on an ongoing basis, in order to inform instruction and support students' individual needs. While Fiene and McMahon (2007) acknowledged the value of standardized testing in the education system, they note that such measures "should not dominate an assessment process because they limit the information provided to the teacher and there is a delay in reporting of the results" (p. 406).

In her study of assessment-driven reading instruction, Dennis (2010) discussed some of the problems surrounding mandated reading assessments. Dennis stated that in some schools, students are grouped in remedial language arts classrooms based on their test results, and that teachers in these classrooms are often encouraged to teach these classes based on a one-size-fits-all instructional program, without properly assessing the

individual student needs. Recommendations from this study included using assessment data from a variety of sources in order to determine the needs of individual students, grouping students according to the results, involving students in setting literacy goals, and involving teachers across the content areas. Most importantly, Dennis (2010) wrote that not all students who are struggling are lacking the same basic skills. As the National Institute for Literacy (2007) explains, "[w]ithout assessments that are sensitive to the contributions of each component to overall reading ability, teachers will not be able to target their instruction to the skills and strategies most in need of improvement" (p. 27). This realization is the key to effective reading comprehension instruction. All of the studies outlined above suggest that when teachers use assessment tools that identify those skills that their students already possess, and those which they lack, they are better able to plan and direct their instruction to the immediate needs of the students in their classrooms.

Finally, if teachers are mandated to use certain activities or assessments, and these assessments are not viewed as valuable within the context of the classroom, they will not be used to inform teacher practice. For example, in order for a test to be meaningful, the assessment type must match the pedagogy that is reflected in the classroom (Whitehead, 2008). In Whitehead's study of middle and secondary schools in New Zealand, he worked with groups of teachers to create assessment tools that better aligned with their instructional practice. In previous years, the assessment tools used predominantly by the teachers in the study were made up of norm-referenced, 'high-stakes' tests that Whitehead suggested "rarely reflect[ed] the pedagogical tools teachers use[d] to facilitate learning" (2008, p. 12). Teachers volunteered to participate in Whitehead's study, where they were encouraged to use a selection of literacy and thinking tools for teaching,

learning and assessment. Whitehead ensured that the teachers selected assessment tools that aligned directly with what was being taught in their classrooms. After the intervention, the teachers in Whitehead's study acknowledged that a shift toward testing how one teaches was challenging, but an integral endeavour. As highlighted by Whitehead's study, if the teacher is not going to teach the skills that are being highlighted in the assessment, the evaluation is worthless.

Bauer and Garcia (2002) suggest that teachers should be involved in the construction and scoring of standardized tests in order for teachers to become more familiar with their purpose. If teachers are more invested in the process, they may be more willing to trust the results. Further, in studies on alternative literacy assessments, teacher autonomy has also played a role. School districts that allowed or even encouraged their teachers to employ alternative assessments like student portfolios created an environment where teachers felt empowered (Fiene & McMahon, 2007).

Gaps and Disagreements

The main gaps in the literature surround the absence of research based on Canadian literacy assessments, standardized tests or reading comprehension programs. Many of the assessment articles refer to the multiple choice, discrete forms of testing utilized mainly in the United States, that place student results on a continuum from high to low, without providing any real information about the skills or abilities that the students are lacking. There are also many pressures surrounding the No Child Left Behind Act (United States Congress, 2001) that permeate much of the assessment literature and research coming out of the United States. While many of the problems surrounding standardized testing apply across the board, there are also specific concerns that are applicable only to the type of assessments mainly covered by the literature. For

example, state-mandated, high stakes testing is not as prevalent in Canada, and therefore Canadian teachers might have different concerns when it comes to the administration of these tests in their classrooms. Further research needs to be conducted on Canadian teacher perceptions of standardized literacy assessments, and how these compulsory tests are informing their instructional practice.

There is also a lack of current research in middle years' classrooms. Many of the studies I read took place in elementary classrooms, where early reading intervention and remediation is common. When students reach middle school, they begin to read texts that are more complex in preparation for high school. Knowing that there can be such a huge developmental range of abilities at the middle school level, it is even more crucial that we use reading assessments and instructional strategies that are relevant to the individual learning needs of our middle years' students. Due to the importance of motivation and engagement at this stage of development, teachers must ensure that they are using materials and strategies that are appropriate for the level. In that sense, it would be valuable to see further research in the area of testing and instructional strategies that are specific to the middle school age group.

Conclusion

Pearson (2009) succinctly sums up the research surrounding reading comprehension instruction with two basic findings: "(a) when students are taught to apply strategies to text, their comprehension of those texts improves, and (b) often their comprehension of new texts (transfer tasks) in which they are required to apply the strategies, also improves" (p. 21). After reviewing the literature surrounding the teaching of reading comprehension in middle school, several major themes have arisen: (a) the notion that middle years' students have a unique set of needs unlike their elementary and

secondary counterparts, (b) the independent use of specific strategies is a vital part of the comprehension process (c) the importance of the teacher's instructional style and commitment to relevant professional development in teaching reading strategies across the curriculum, and (d) the establishment of meaningful and ongoing assessment programs that include the breakdown of individual component skills, and that provide information regarding student ability to teachers in a timely manner.

Students need explicit instruction in order to learn and internalize the strategies necessary for successful reading comprehension. It is also clear that good readers employ strategies before, during and after reading; they predict and infer, make connections, ask questions, summarize the main ideas, attend to text structures and features, and have a well-developed vocabulary. It is also well established that teacher instruction of these strategies should use a Gradual Release of Responsibility model (Pearson, 2009) that allows for independent student practice.

After examining the themes noted above, I believe there is a need for the development of a teacher resource that can be used directly in conjunction with a variety of reading assessments, whether they are standardized, classroom-based or alternative in nature. This resource should allow for the fact that middle school students are at varying stages of social and academic development, and that their needs will change over the course of the school year. It should also be easily accessible and adaptable to accommodate a wide range of curriculum needs, providing all teachers with the flexibility they require to cater to the needs of their diverse classrooms.

In the following chapter, I present a teacher resource that contains materials for each of the comprehension strategies mentioned in the literature, and that will be applicable for a wide range of student capabilities and subject areas. An electronic

version of this resource (http://literacy.sd63.bc.ca/mod/resource/view.php?id=82) has also been created, so that teachers are able to access the strategies and modify or adapt them to best fit their curricular or student needs.

Chapter 3

A Strategy-Based Resource

Developing Strategic Readers in the Middle Years

Introduction

The following resource is meant to serve as a supplement to the reading comprehension program in your classroom. After establishing the needs of your students based on any one of a number of reading assessments, you can use the attached resource materials to target one or more of the specific skills that your students may be lacking in the following areas: Predicting / Inferencing, Making Connections, Asking Questions, Main Idea, Summary, Text Structures and Features or Vocabulary. According to Pearson (2009), "(a) when students are taught to apply strategies to text, their comprehension of those texts improves, and (b) often their comprehension of new texts (transfer tasks) in which they are required to apply the strategies, also improves" (p. 21). My hope is that the materials contained in this resource will be flexible for use in Language Arts classrooms as well as for use across all of the middle-school content areas.

Suggestions for Use

Based on relevant research, there are a few important points to keep in mind in order to make the most effective use of this resource:

(a) Assessment of reading comprehension should be ongoing and should be accompanied by relevant and timely assessment of student progress (Duke & Pearson, 2002). Therefore, students should be assessed in a meaningful way; that is, using a formalized assessment of reading comprehension that provides information about student ability that is broken down into component parts. Additionally, this assessment should also reflect student strengths with individual reading strategies, so the teacher is able to cater classroom instruction accordingly. The DART is a perfect example of such an assessment. It provides timely feedback to the classroom teacher, and this feedback can

be used to identify the areas where support is needed. An assessment like the DART should take place before instruction begins, and students should continue to be assessed throughout the year to monitor their growth.

As an example of ongoing assessment that can be linked with the materials in this resource, I have included a sample of a student self-assessment to be used with the KWHL chart; an organizer that is useful for practice with making connections, predicting and inferencing, questioning, and developing vocabulary. In this self-assessment, the student examines his/her before, during, and after reading strategies, and assesses his / her use of the organizer. The teacher then confirms that the tasks were completed adequately, and engages in a conference with the student to discuss possible areas of improvement. I have also included a sample of an assessment that can be used when teaching students how to summarize. In this assessment, the students and teacher analyze the individual components of a strong summary, and then conference about strengths and weaknesses, setting goals for next time. As evidenced by the research, these sample forms of assessment are effective because they are timely (Duke & Pearson, 2002), self-reflective (Brown, 2002; Dennis, 2010), authentic, and align directly with the pedagogy being used in the classroom (Whitehead, 2008).

If a combination of formalized and ongoing assessment is being utilized in a classroom, a teacher is much more likely to have an accurate picture of individual student's capabilities, and as a result, will be better able to cater classroom instruction to meet the needs of his / her students.

Name:

Date:

KWHL – Student Self-Assessment

Student Task	Complete	Teacher Verified
BEFORE READING, I brainstormed all I knew about the topic and made a list in the K column.		
BEFORE READING, I listed several questions I had about the topic in the W column.		
DURING READING, I jotted down things I was learning or new questions I had in the L column.		
AFTER READING, I reflected on the K column, putting checks beside things that were correct, and crossing out things that were incorrect.		
AFTER READING, I put question marks beside notes in the K column that were not mentioned in the text.		
AFTER READING, I reflected on the W column, putting a check beside any questions that were answered, and an 'x' beside any questions that were not answered.		
AFTER READING, I filled in the H column, making notes about where I could find additional information.		

***After students complete self-assessment, teacher should conference with individuals to assess successful use of KWHL strategy. Teachers may also wish to have students set goals for the next time they use the strategy.

Adapted From: Mowey, S., Conahan, P., & Instructional Support System of Pennsylvania. (1995). *Reading / writing comprehension strategies*. Retrieved from EBSCO*host*. http://www.eric.ed.gov/PDFS/ED409531.pdf

Name:

Date:

Summary of Expository Text

Components of a Good Summary	Student Self-Assessment	Teacher Assessment
My summary has a strong introductory or topic sentence.		
I clearly state the main idea.		
I include important details that support the main idea.		
My summary shows that I understand the relationships between important concepts.		
I used my own words rather than words copied from the text.		
My summary has a strong conclusion.		

Teacher comments on the strength of my summary:

Teacher suggestions for improvement:

My goals for next time:

Adapted From: Mowey, S., Conahan, P., & Instructional Support System of Pennsylvania. (1995). *Reading / writing comprehension strategies*. Retrieved from EBSCO*host*. http://www.eric.ed.gov/PDFS/ED409531.pdf

(b) Instruction of reading strategies should be explicit and direct, with an emphasis on teacher modelling, guidance and time for independent student practice (i.e. Gradual Release of Responsibility model) (Brown, 2002; Cantrell, et al., 2010; National Institute for Literacy, 2007; Palincsar & Brown, 1983; Pesa & Somers, 2007). Palincsar and Brown (1983) suggest that the teaching process should include practice with task-appropriate strategies, explicit instruction, self monitoring during skill use, and time to reflect on how and where the strategies could be best utilized. Allington (2002) also recognizes the value in what he calls *active instruction*, an instructional method that involves teacher modelling and demonstration of strategies employed by strong readers. Not only does active instruction involve teachers explicitly demonstrating the skills they want their students to learn, but the teachers "foster transfer of the strategies from the structured practice activities to students' independent use of them while engaged in reading" (Allington, 2002, p. 744).

One of the most effective methods for modeling strategy use is called the think-aloud. This instructional strategy is well supported by scholars (Allington, 2002; Henry, 2003; Wilhelm, 2001), and can be easily incorporated into classroom instruction. Wilhelm notes that "[t]hink-alouds are a powerful way to teach because they give students the expert's keys to unlock a text's fullest construction of meaning" (p. 9). Wilhelm also points out how the teacher modeling and explicit instruction present in think-alouds connects directly to Vygotsky's research on the zone of proximal development, where the most effective instruction and learning occurs. Further, the think-aloud strategy is the first step in the Gradual Release of Responsibility model (Pearson, 2009).

As with any teaching strategy, there are things to keep in mind when using think-alouds. First, think-alouds are not appropriate when students already know how to use a strategy, or when the strategy is too complex for them to comprehend (Wilhelm, 2001). As teachers, we must be aware of the needs of our students, and focus our explicit instruction on tasks that are just beyond their ability to use independently. This goal may involve some strategic grouping of students for focused instruction. While one-on-one instruction might be most effective, the latter is not always feasible in the classroom setting. Wilhelm suggests the occasional use of more skilled peers tutoring their struggling classmates when teacher assistance is not available. He notes that both partners benefit from think-alouds, as they are required to "name and consolidate their own current strategy use and to find ways of extending and elaborating on that use" (Wilhelm, 2001, p. 16). Most importantly, employing active and explicit instructional strategies, while allowing time for guided and independent student practice, can lead to the most effective development of strategic middle school readers.

(c) Middle school students should be involved in the process of their own learning. They must learn to monitor and regulate their own comprehension and set goals for improvement throughout the reading process (Brown, 2002; Cantrell et al., 2010; Palincsar & Brown, 1983). As Cantrell et al. (2010) point out, our goal is for "students to become self-regulated learners who [are] capable of independently determining what strategies to use and when to use them" (p. 259). With adequate instructional support throughout the learning process, students can begin to use these strategies automatically and flexibly, in a variety of situations.

At the middle school level, think-alouds can also be an excellent way for students to practice the strategies that have already been explicitly modeled by the teacher. The

think-aloud rubric below allows students to work through the think-aloud process on their own, while requiring them to reflect on their use of strategies as they read. The most important part of this activity is the reflection component. Here, students are required to consider which response types were easiest for them, and which were more difficult. In this way, they are becoming aware of their own strengths and weaknesses. This self-awareness is vital to the process of creating strategic readers, as Hall (2005) reminds us that "struggling readers who do not recognize that they have comprehension difficulties may not understand and/or believe that they need to apply specific strategies to help them understand text" (p. 15). In the rubric, students are asked to reflect on their progress, and to set a goal for the next time they read; another component to reading comprehension instruction that is heavily supported by researchers (Brown, 2002; Cantrell et al., 2010; Palincsar & Brown, 1983). This rubric could be used in individual teacher-student conferences, as well as in peer partnerships, with students working together to practice responding to text.

Name:
Date:

Think-Aloud Rubric

Response Types	5-6 different response types	3-4 different response types	1-2 different response types
Predictions			
Inferences			
Text-to-Self Connection			
Text-to-Text Connection			
Text-to-World Connection			
Asked a Question			
Confused about Word Meaning			
Stated Author's Meaning			
Score	3	2	1

Reflection Time

Which response type(s) were easiest for you? Why?

Which response type(s) did you use least often? Why?

Set a goal for next time. Which response type will you aim to improve? How?

Adapted From: Henry, L. (2003). Building reading comprehension through think-alouds. *International Reading Association, National Council of Teachers of English.* Retrieved from EBSCO*host*. http://www.eric.ed.gov/PDFS/ED479060.pdf

(d) Reading strategies should not be taught in isolation, but rather as a suite of strategies that work together to aid in the development of comprehension (Brown, 2002). By teaching students a collection of interrelated comprehension strategies, they can begin to acquire the skills necessary to select the appropriate tool for the required task. If taught in this manner, students can eventually learn to become self-regulated learners who are able to choose the correct strategy independently. This teaching style makes sense, as we know that good readers often use strategies simultaneously as they read, and not always sequentially (Duke & Pearson, 2002).

Based on this information, I have included a sheet of questions that can be provided to students to guide them through the reading process. The questions are the types of questions that good readers ask themselves automatically before, during, and after they read. The questions target all of the major reading comprehension strategies: predicting, inferencing, making connections, questioning, summarizing and identifying main idea, using text features, and vocabulary development, demonstrating to students that all comprehension strategies can work together to aid in overall comprehension. As previously highlighted, the use of this question sheet should be explicitly modeled by the teacher before students are asked to use it independently. It should also be noted that students are not expected to use all of the questions on this sheet each time they read, but rather they should use the list of questions as a guide. Students could be asked to select two or three question prompts from each of the three sections to ask themselves as they move through the reading process.

Questions Asked By Strategic Readers

Before Reading:

What kind of text is this? (Fiction, non-fiction, poem, etc.)

What will the text be about?

What do the title, pictures, and headings tell me?

What do I already know about the topic?

Why would someone write about this?

Why would someone read about this?

Is there anything I wonder about before reading?

During Reading:

What do I think will happen next? How do I know this?

Are my predictions correct so far?

Does what I'm reading make sense?

What can I do if I don't understand what I'm reading?

What have I learned so far?

What have I found interesting so far?

Is this text easy or hard to read?

What words do I not understand?

What is the author telling me directly?
What is the author telling me indirectly (implying)?

How do I feel about what the author is saying?

What am I visualizing as I read?

After Reading:

What questions did I have before reading? Can I answer them now?

What do I still wonder about?

What parts of the text were confusing?

What did I learn?

Did I like it? Why or why not?

Were my predictions correct?

How would I summarize the main idea(s) of this text?

Was this similar / does it remind me of something I have read before?

Adapted From: Mowey, S., Conahan, P., & Instructional Support System of Pennsylvania. (1995). *Reading / writing comprehension strategies*. Retrieved from EBSCO*host*. http://www.eric.ed.gov/PDFS/ED409531.pdf

Cautions

Before using the materials contained in this resource, it is important that your students possess a few background skills so the strategic-reading instruction will be most effective. The beginning of the school year, when you are getting to know your students and evaluating their strengths and weaknesses, is a perfect time to introduce or reinforce some of the skills outlined below.

First, ensure that your students have practice working both independently and in small groups. Many of the activities enclosed in this resource work best when students work independently, and then collaborate with their peers to discuss their strategy use. It is important that the students have practice talking through their own thinking process, as this practice will help them to become more successful strategic learners. In fact, as Fisher and Frey (2008) suggest, "students may be able to explain their metacognitive strategies to peers, even when they cannot do so for the teacher" (p. 19). The think-aloud rubric is an excellent way for students to practice reflecting on their own thinking. This rubric can be used for student-teacher conferencing, and once students are familiar with the process, for conferencing between peers.

Second, students should also be familiar with setting goals for their own learning. In order to do this, they need to be aware of their own strengths and weaknesses as readers. As most students complete a formalized reading assessment like the DART near the beginning of the school year, this assessment would provide an excellent platform on which to conference with individual students and help them to understand those skills that they already possess, and those skills that they still need to practice and develop. If students can become more metacognitive about their development as readers, they will be more likely to engage in strategic reading (Zimmerman, 1989). Results from a formalized

assessment like the DART can be a great starting point for conversations about reading comprehension between teachers and students, as long as both parties recognize that the test is only a measurement at one point in time. Ongoing assessment over the course of the school year will be most helpful for student development.

Third, texts selected for use with this resource should be levelled appropriately so that students can experience success. If the texts are too difficult, students will be unable to complete the required tasks in the resource, and their motivation to learn the reading strategies will suffer: "[M]otivational practices are likely to have positive effects on students' conceptual knowledge acquisition and strategic development as well as on their motivational dispositions and behaviors" (Guthrie et al., 2004, p. 416). Therefore, while students will be reading information on the same topic and completing a similar task as they read, they may not be all reading out of the textbook; some may be reading a magazine article, examining images, or watching a video, for example.

Finally, strategic reading instruction should be consistently reinforced across the curriculum. Often, the Language Arts teacher is responsible for administering the formalized reading assessment at the beginning of the year. It is the responsibility of this teacher to share the results with all other subject-area teachers, and to facilitate a meeting to identify which reading strategies will be the focus for the first part of the year. For example, research has shown that it is most effective for teachers choose three to five graphic organizers to focus on as a group, given that it takes time for students to learn to use them effectively (Gude, Jackson, & Shaw, 2000). If the Language Arts teacher takes the responsibility for the explicit teaching of how to use these materials, the content-area teachers will simply have to reinforce this use in their classrooms. As Pesa and Somers (2007) tell us, the role of content area teachers is to "align methods of instruction with the

reading strategies taught in language arts classes to enhance understanding and interest" (p. 33). It is also important that this group of teachers meets throughout the school year to evaluate the instructional strategies being used and the progress of the students, and to make any necessary modifications. This communication can ensure that the instruction the students are receiving is relevant and meaningful. As Goodman (2005) reminds us, our "[s]tudents deserve explicit, sequenced instruction from all of their teachers in a meaningful, connected way" (p. 12). If teachers take the time to collaborate regarding reading instruction, this instruction can become more cohesive for students, and they are able to see how reading skills can be transferred into different contexts.

Resource Materials

In the following section, you will find information about each of the comprehension components included in this resource (predicting, inferencing, making connections, identifying main idea, summarizing, text structures and features, and vocabulary). The subsequent resource materials are listed in alphabetical order, but have been sorted using a matrix according to the specific reading strategies that they address. Please note that several of the materials address multiple reading strategies, and this overlap is clearly indicated on the matrix (pp 62-63).

Predicting and inferencing.

Two of the most important pre- and during-reading strategies are prediction and inference. Predictions can be used before a student begins reading, and also as the student reads, to test whether or not the text is making sense. In other words, the predictions become hypotheses to test as the student is reading (Neufeld, 2005).

Inferencing is defined as "the ability to use two or more pieces of information from a text in order to arrive at a third piece of information that is implicit" (Kispal, 2008, p. 2). It is also viewed as the "bedrock of comprehension" (Harvey & Goudvis, 2000, p. 105), however it can be a difficult reading strategy to teach. Bowyer-Crane and Snowling (2005) maintain that all "children with comprehension difficulties would benefit from support in the use of real-world knowledge to generate inferences while reading" (p. 199). These strategies can enable them to make strong connections between what they are reading and what they already know.

The British Columbia curriculum documents align with the research, suggesting that middle school students should be able to make logical predictions before and during reading, and that they should be able to make inferences and draw conclusions during and after reading (British Columbia Ministry of Education, 2006, pp. 90 & 96; 2007, pp. 105-106). The following materials provide a guideline to support students as they make predictions and inferences as they read:

- Becoming Thieves
- Choice Beginnings
- KWHL Chart
- Predict and Infer
- Previewing, Predicting, and Learning
- Probable Passages
- Reading Voice, Thinking Voice
- Roll and Respond Cube
- See, Think, Wonder

- Sharing Your Thinking
- What Kinds of Questions Do They Ask?
- What, So What, Then What?
- What's In, What's Out?

Making connections.

In order to construct meaning, good readers constantly revise new information, ask questions to clarify, and reconstruct new understanding in order to integrate it into their network of knowledge (Duke & Pearson, 2002; Lenski, 1998). In order to develop good readers, research suggests that we must encourage students to make connections to things they already know, things they have previously read, or things they have experienced in the world.

According to the British Columbia curriculum documents, middle school students should be able to access prior knowledge to make connections before reading, and construct, monitor, and confirm meaning during reading by making connections with prior knowledge and experiences. These strategies should include text-to-self, text-to-text, and text-to-world connections (British Columbia Ministry of Education, 2006, p. 90; 2007, p. 105). The following materials can be used to aid students in making connections before and during reading:

- 3,2,1 Summary
- Choice Beginnings
- Connect, Extend, Challenge
- Double Entry Notes
- Illuminating Connections
- IQIQU
- KWHL Chart
- Probable Passages
- Read, Relate, Respond
- Reading Voice, Thinking Voice
- Synthesizing Information
- Three Types of Connections
- Tic Tac Tell

- What Kinds of Questions Do They Ask?
- What, So What, Then What?

Asking questions.

Teacher-generated questioning is one of the most heavily favoured instructional strategies in the middle school classroom (Ness, 2011). Despite this fact, scholars agree that student-generated questions throughout the reading process are most effective in terms of the development of reading comprehension (Duke & Pearson, 2002; Dymock & Nicholson, 2010), and that generating questions is a good way to "process text and monitor comprehension" (National Institute for Literacy, 2007, p. 20). As students begin to ask the right questions as they read, this questioning can lead to higher-level thinking and comprehension (Raphael & Au, 2005).

The British Columbia curriculum documents suggest that middle school students should be able to ask questions before reading, ask and answer questions during reading, and generate thoughtful questions after reading to confirm and extend meaning (British Columbia Ministry of Education, 2006, pp. 90 & 96; 2007, pp. 105-106). The following materials will help guide students as they create questions before, during, and after reading:

- 3,2,1 Summary
- Becoming Thieves
- Choice Beginnings
- Connect, Extend, Challenge
- IQIQU
- KWHL Chart
- Reading Voice, Thinking Voice
- Roll and Respond Cube
- See, Think, Wonder
- Sharing Your Thinking
- Stop and Reflect
- Synthesizing Information
- The Big Question

- Tic Tac Question
- Turn it Into a Question
- Two Column Notes
- What Kinds of Questions Do They Ask?
- What, So What, Then What?

Main idea and summary.

According to Block and Pressley (2003), summarizing is "the ability to delete irrelevant details, combine similar ideas, condense main ideas, and connect major themes into concise statements that capture the purpose of a reading for the reader" (p. 117). Summary skills are important, as research has shown that the ability to summarize a text can actually enhance a student's comprehension of that text (Dymock & Nicholson, 2011). Also, teaching students to state in their own words what they have read can be a useful way to quickly check whether students are grasping the main ideas and most important details in what they are reading (Brown, 2002).

The British Columbia curriculum documents suggest that middle school students should be able to read selectively to determine the importance of ideas/events, and to differentiate between main ideas and supporting details (British Columbia Ministry of Education, 2006, pp. 371 & 418; 2007, pp. 105-106). The documents also state that students should be able to reflect, respond, summarize and synthesize after reading in order to apply their new ideas. (British Columbia Ministry of Education, 2006, pp. 90 & 96; 2007, pp. 105-106). The following materials help students to practice identifying the main idea, and summarizing this main idea in a clear and concise manner:

- 3,2,1 Summary
- 5, 3, 1 Summary
- 20 Word Summary
- Draw It, Recall It
- IQIQU
- Picture Summaries

- Reading Voice, Thinking Voice
- Roll and Respond Cube
- Something Happened and Then
- Stop and Reflect
- Tic Tac Tell
- What's In, What's Out?

Text structures and features.

According to Neufeld (2005), texts use overarching organizational structures like "enumeration, time order, compare and contrast, cause and effect, problem/solution and description" (p. 305), and students can be taught to recognize these structures. According to their research, Kelley and Clausen-Grace (2008) found that students often ignore essential text structures, despite previously learning about their importance, and suggest that explicit teacher instruction is key to the retention of this strategy. The British Columbia curriculum documents suggest that attending to text structure is "an aid to comprehension, since knowing the structure … gives the reader clues about its content" (British Columbia Ministry of Education, 2007, p. 130).

Attention to internal text structure is also an important part of the reading comprehension process. Bluestein (2010) suggests that students should be taught to focus on elements like the table of contents, headings and subheadings, summary statements, and bold text. The British Columbia Ministry of Education refers to these elements as text features, and concurs that they can be "helpful in supporting comprehension" (2007, p. 130).

According to the British Columbia curriculum documents, middle school students should be able to explain how text structures and features work to develop meaning during reading, and should be able to use them to read selectively and to differentiate between main ideas and supporting details (British Columbia Ministry of Education,

2006, pp. 90 & 96; 2007, p. 105). After reading, students should be able to use text features to locate information (e.g., copyright, table of contents, headings, index, glossary, diagrams, sidebars, hyperlinks, pull-quotes). (British Columbia Ministry of Education, 2006, pp. 91 & 97). The following materials provide students with opportunities to examine text structures and features, and to explain discuss how these elements affect their reading of the text:

- Becoming Thieves
- Previewing, Predicting, and Learning
- Sharing Your Thinking
- Text Features Scavenger Hunt
- Turn it Into a Question

Vocabulary.

Vocabulary instruction can be complex, as helping students to understand the vocabulary in academic text involves many strategies, including pulling words apart, putting them together, defining them informally, practicing them in speech and explaining them in writing (Kelley et al., 2010). According to Wharton-McDonald and Swiger (2009), the more words students know, the more likely they are to learn new words, as they are more likely to tackle more sophisticated text. The most effective way to teach vocabulary is to balance the direct teaching of words with word-learning strategies, so students are capable of learning new words independently (Kelley et al., 2010).

According to the British Columbia curriculum documents, middle school students should be able to select and use strategies during reading to construct, monitor, and confirm meaning, including figuring out unknown words. They should also increase word skills and vocabulary knowledge by analyzing the origins and roots of words and determining meanings and uses of words based on context (British Columbia Ministry of

Education, 2006, pp. 373 & 421; 2007, p. 59) Finally, students should demonstrate an ability to use vocabulary appropriate to audience and purpose (British Columbia Ministry of Education, 2006, pp. 362 & 408; 2007, p. 59). The following materials specifically address vocabulary instruction and development:

- Choice Beginnings
- Double Entry Notes
- Frayer Model
- KWHL Chart
- Roll and Respond Cube
- Three Column Notes
- Two Column Notes
- Vocabulary Squares
- Word Keeper

To review, the following matrix organizes the resource materials according to the specific reading strategies that they address. Please note that several of the materials address multiple reading strategies, and this overlap is clearly indicated.

Resource Materials Matrix	Predicting	Inferencing	Making Connections	Questioning	Identifying Main Idea	Summarizing	Text Structures & Features	Vocabulary
3, 2, 1 Summary			☒	☒	☒	☒		
5, 3, 1 Summary					☒	☒		
20 Word Summary					☒	☒		
Becoming Thieves	☒	☒		☒			☒	
Choice Beginnings	☒	☒	☒	☒				☒
Connect, Extend, Challenge			☒	☒				
Double Entry Notes			☒					☒
Draw It, Recall It				☒	☒			
Frayer Model								☒
Illuminating Connections			☒					
IQIQU			☒	☒	☒	☒		
KWHL Chart	☒	☒	☒	☒				☒
Picture Summaries					☒	☒		
Predict and Infer	☒	☒						
Previewing, Predicting, and Learning	☒	☒					☒	
Probable Passages	☒	☒	☒					
Read, Relate, Respond			☒					
Reading Voice, Thinking Voice	☒	☒	☒	☒	☒	☒		

Resource Materials Matrix Continued…	Predicting	Inferencing	Making Connections	Questioning	Identifying Main Idea	Summarizing	Text Structures & Features	Vocabulary
Roll and Respond Cube	☒	☒		☒				☒
See, Think, Wonder	☒	☒		☒				
Sharing Your Thinking	☒	☒		☒			☒	
Something Happened and Then					☒	☒		
Stop and Reflect				☒	☒	☒		
Synthesizing Information			☒	☒				
Text Features Scavenger Hunt							☒	
The Big Question				☒				
Three Types of Connections			☒					
Three Column Notes								☒
Tic Tac Question				☒				
Tic Tac Tell			☒		☒	☒		
Turn it Into a Question				☒			☒	
Two Column Notes				☒				☒
Vocabulary Squares								☒
What Kinds of Questions Do They Ask?	☒	☒		☒				
What, So What, Then What?	☒	☒	☒	☒				
What's In, What's Out?	☒	☒			☒	☒		
Word Keeper								☒

Name:
Date:

3-2-1 Summary

Topic: _____

3 Things We Learned	2 Connections We Can Make	1 Question We Have

Adapted From: Wormeli, R. (2007). *Summarization in any subject: 50 techniques to improve student learning.* Alexandria, VA: Association for Supervision and Curriculum Development (ACSD).00

Name:
Date:

5-3-1 Summary

5	On your own, record five main idea words in the space below:	Personal Summary
3	In groups, choose only three words from all of your lists:	
1	Choose one word as a group:	
	Explain your choice:	

Adapted From: Brownlie, F. (2007). DART: District assessment of reading team. Consortium of BC School Districts.

Name:
Date:

20 Word Summary

After reading the text or viewing the video, choose 20 key words or word pairs on the topic and record them in the space below. Next, write a one or two paragraph composition that summarizes the main ideas.

Topic:

Key Words:

SUMMARY:

Adapted from: Strayer, B., & Strayer, T. (2007). *Strategies for differentiating in the content areas.* New York, NY: Scholastic.

Name:
Date:

Becoming THIEVES

T	What is the **T**itle of the Chapter? What do you think you will be learning about?
H	List three **H**eadings: 1. 2. 3.
I	Read the first (**I**ntroductory) paragraph. Write down anything you already know about this topic.
E	Read **E**very first sentence of three paragraphs. What have you learned?
V	Describe two **V**isuals. How do you think they will help you understand the text? pg. pg.
E	Write one of the **E**nd of the chapter questions below:
S	Read the **S**ummary section at the end of the chapter.

Adapted From: Manz, S. L. (2002). A strategy for previewing textbooks: Teaching readers to become THIEVES. *The Reading Teacher, 55*(5), 434-435.

Name:
Date:

Choice Beginnings

Your teacher will read you a selection of vocabulary words from the text you are about to read. He or she will read these words three times. As you listen to the words, respond in the spaces below using the method of your choice:

- Ask a question
- Sketch an image
- Make a prediction
- Make a connection

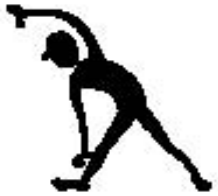
Word:	Word:	Word:

Adapted from: Bayside Literacy Team (2010).

Name:
Date:

CONNECT, EXTEND, CHALLENGE

Topic: _____



CONNECT

How does this information connect to what you already know?

EXTEND

What ideas extended your thinking?

CHALLENGE

What is still challenging for you?

Adapted from: Ritchhart, R., Palmer, P., Church, M., & Tishman, S. (2006). *Thinking routines: Establishing patterns of thinking in the classroom.* AERA conference paper: April 2006.

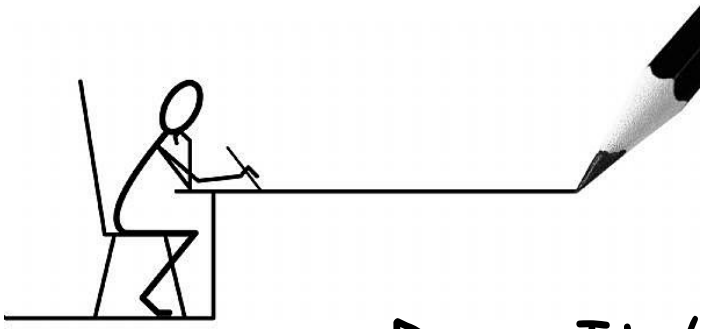
Name:
Date:

Double-Entry Notes

Title:_____ Topic:_____

Facts So far in the story… (Summary of what the author wrote)	**My Thinking Voice** My reaction/response… (What I'm thinking, wondering, feeling, etc)

Adapted From: Gear, A. (2006). *Reading power: Teaching students to think while they read*. Portland, ME: Pembroke Publishers.



Name:
Date:

Draw It / Recall It

Draw images that represent the main ideas from your reading.	Record three facts about each main idea.
	1. _____ 2. _____ 3. _____
	1. _____ 2. _____ 3. _____
	1. _____ 2. _____ 3. _____
	1. _____ 2. _____ 3. _____

Adapted from: Gear, A. (2008). *Nonfiction reading power: Teaching students how to think while they read all kinds of information*. Portland, ME: Stenhouse Publishers.

Name:
Date:

Frayer Model

Definition (in own words)	Characteristics
Examples (from own life)	Non-examples (from own life)

Adapted from: Barton, M.L. & Jordan, D.L. (2001). *Teaching Reading in Science*. Alexandria, VA: Association for Supervision and Curriculum Development.

Name:
Date:

Illuminating Connections

What I Read: • Quote • Text Summary	I connected it to: • Things that happened to me • Other books, TV shows or movies • Something I already knew	Because: • Explain your connection

Adapted From: Brownlie, F. (2007). DART: District assessment of reading team. Consortium of BC School Districts.



Name:
Date:

IQIQU

Image (describe a powerful image.)	**Q**uote (record a quote below that stood out for you and explain why you chose it.)
Idea (What main idea is being presented?)	**Q**uestion (Create an insightful question. You need NOT know the answer.)

U (You!)

Thoughts / Feelings / Connections

Adapted from: Gregory, K. (2010). *IQIQU*. Bayside literacy workshop.

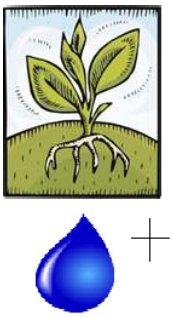
Name:
Date:

KWHL Chart

Topic:_____

I Already Know…	I Wonder About…	How Could I Learn It?	What I Learned…

Adapted From: Ogle, D. (1986). K-W-L: A teaching model that develops active reading of expository text. *The Reading Teacher, 39*, 564-570.



Name:
Date:

Picture Summaries

Topic: _____

For each section, use a combination of illustrations, diagrams, key words, important ideas and concrete spellings to summarize what you read.

Page(s) _____	Page(s) _____
Page(s) _____	Page(s) _____

Adapted from: Kathleen Gregory literacy workshop (2010).

Name:
Date:

Predict and Infer

Choose specific events from the story and predict what you think will happen next. Use the words or pictures to give you clues as to what might happen. Then, record what actually happened in the story to see if you were correct.

Title:_____ Author:_____ Page(s):_____

Event	What I Think Will Happen	Clues From the Story	What Actually Happened

Adapted From: *Predict and Infer Graphic Organizer*. (2010). Retrieved July 25, 2011 from http://www.havefunteaching.com/worksheets/graphic-organizers/predicting-outcomes/predict-and-infer-graphic-organizer.pdf

Name:
Date:

Previewing, Predicting, and Learning From Text Features

Text Feature & Page	What does the text feature do?	What I learned from reading the text feature

Adapted From: Kelley, M. J., & Clausen-Grace, N. (2007). *Comprehension shouldn't be silent: From strategy instruction to student independence*. Newark, DE: International Reading Association.

Name:
Date:

Probable Passages

Using the vocabulary words provided by your teacher, make predictions about each of the following story elements. Be sure to use different vocabulary words in each of your predictions.

Vocabulary Words

Setting

Characters

Conflict

Events

Resolution

Adapted from: McLaughlin, M., & Allen, M. B. (2002). *Guided comprehension*: A teaching model for grades 3-8. Newark, DE: International Reading Association.

Name:
Date:

Read, Relate, Respond

Title:_____ Author:_____ Page(s): _____

 This part is exciting.	 This part is puzzling.	 I think...
 I feel...	 A funny part is...	 A surprising part is...

Adapted From: Southall, M. (2007). *Differentiated literacy centers: 85+ leveled activities - with reproducible planning sheets and student pages - to support centers in fluency, reading comprehension, and word study.* New York, NY: Scholastic.

Name:
Date:

Reading Voice, Thinking Voice

My Reading Voice So far in the story… (Summary of what the author wrote)	**My Thinking Voice** Connections, questions, inferences, images, etc.

My Transformed Thoughts After reading, now I'm thinking about…

Adapted From: Gear, A. (2006). *Reading power: Teaching students to think while they read.* Portland, ME: Pembroke Publishers.

Name:
Date:

Roll and Respond Cube

Report on an interesting event or fact.

Ask a question about the character, events, topic or facts.

Point out a unique or puzzling word.

Make a prediction about what might happen next.

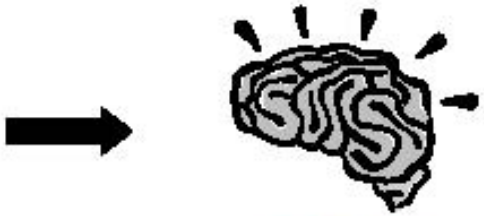
Share something you knew about before reading.

Tell about something new you learned from the reading.

Name:
Date:

SEE, THINK, WONDER

Topic: _____



SEE	THINK	WONDER
What do you see?	What does it make you think about?	What does it make you wonder?
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Adapted from: Ritchhart, R., Palmer, P., Church, M., & Tishman, S. (2006). *Thinking routines: Establishing patterns of thinking in the classroom*. AERA conference paper: April 2006.

Name:

Date:

Sharing Your Thinking

Zoom-In

Can you name some text features that you might find in a non-fiction book?	
Why are text features used in non-fiction books?	
Look at these text features. Explain what they mean. (Provide two or three examples.)	
Read the paragraph. Create/draw a text feature to represent the information. (Supply a short piece of informational text.)	

Adapted From: Gear, A. (2008). *Nonfiction reading power: Teaching students how to think while they read all kinds of information*. Portland, ME: Stenhouse Publishers.

Name:
Date:

Something Happened and Then…

Something	Happened	And	Then

Summary Statement:

Adapted from: Beers, K. (2003). *When kids can't read: What teachers can do*. Portsmouth, NH: Heinemann.

and Reflect

Name:

Date:

Topic:	
Key ideas so far:	These ideas are important because...
This applies to my work because...	
One question I have is...	

Adapted from: Nellwak of Performance Based School Conference (2007).

Name:
Date:

Synthesizing Information

Thinking about…	**Related information**
Our Question:	
New Questions:	
Connections:	

Adapted From: Brownlie, F., Feniak, C., & Schnellert, L. (2006). *Student diversity: Classroom strategies to meet the learning needs of all students.* Portland, ME: Stenhouse Publishers.

Name:
Date:

Text Feature Scavenger Hunt

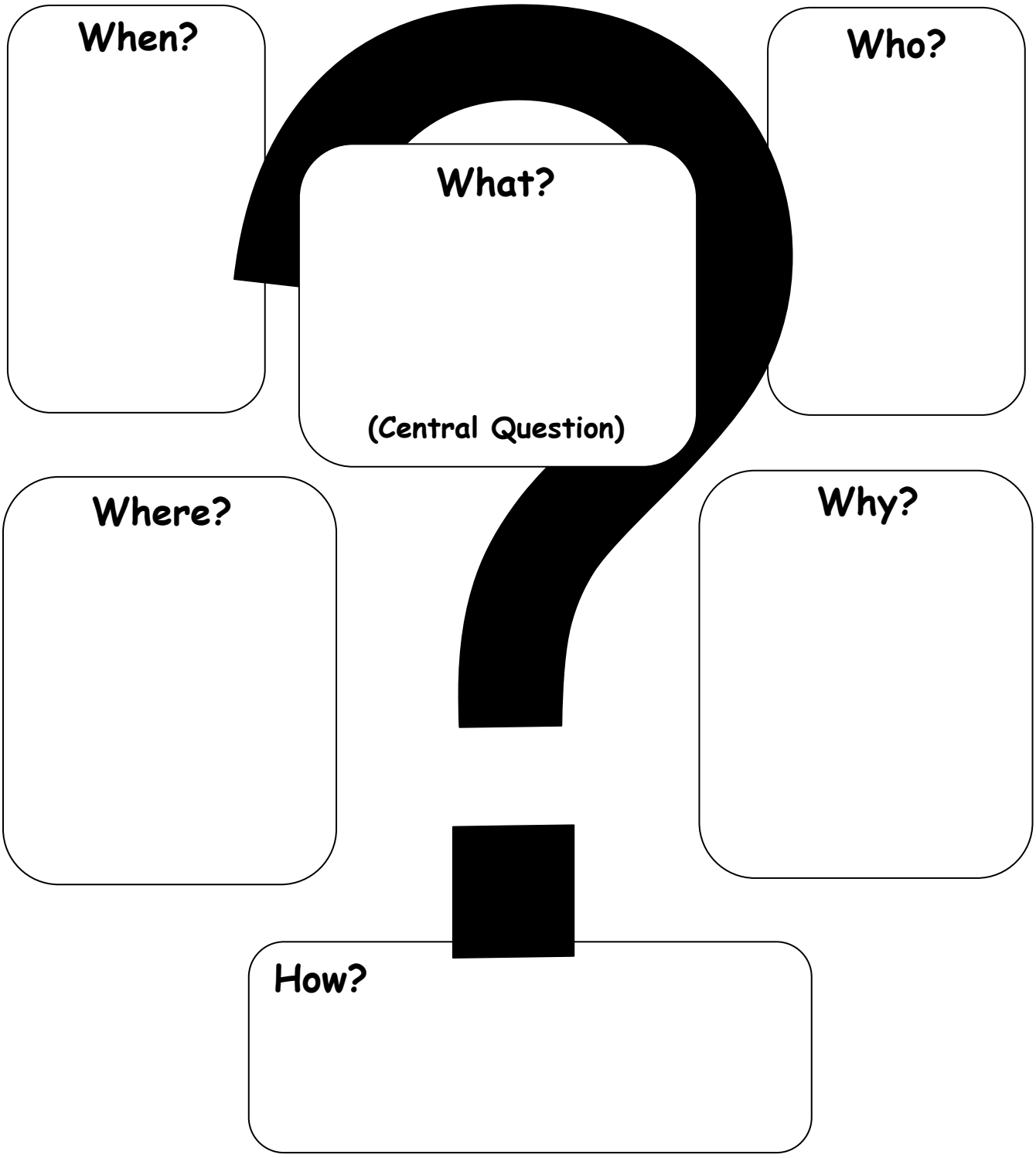
Your job is to investigate text features and try to find examples of as many different features as you can. Be sure to list the feature, its purpose and the text in which you found it.

TEXT FEATURE	PURPOSE	FOUND IN	PAGE

Adapted From: Hoyt, L. (2002). *Make it real: Strategies for success with informational texts.* Portsmouth, NH: Heinemann.

Name:
Date:

The Big Question



Adapted From: Irwin-DeVitis, L., Bromley, K., & Modlo, M. (1999). *50 graphic organizers for reading, writing and more*. New York, NY: Scholastic.

Name:
Date:

Three Kinds of Connections

Fact / Image / Event from Text	Connection to Your Own Life
Text to Self 	
Fact / Image / Event from Text	**Connection to Book, Movie, TV, etc.**
Text to Text 	
Fact / Image / Event from Text	**Connection to the World**
Text to World 	

Adapted from: Gear, A. (2008). *Nonfiction reading power: Teaching students how to think while they read all kinds of information*. Portland, ME: Stenhouse Publishers.

Name:
Date:

Three-Column Notes

Word and Meaning	Details	Drawing
1.	a. b. c.	
2.	a. b. c.	
3.	a. b. c.	
4.	a. b. c.	
5.	a. b. c.	

Adapted From: Brownlie, F., Feniak, C. & Schnellert, L. (2006). *Student diversity: Classroom strategies to meet the learning needs of all students.* Portland, ME: Stenhouse Publishers.

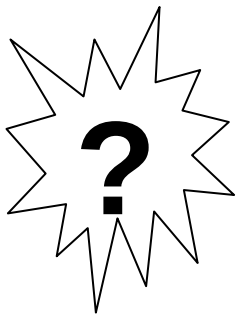
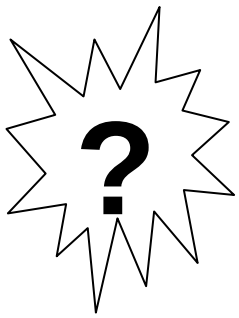
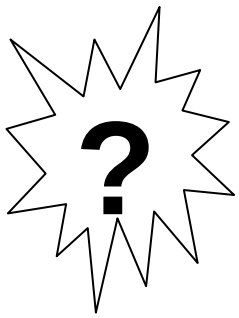
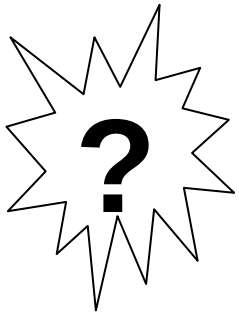
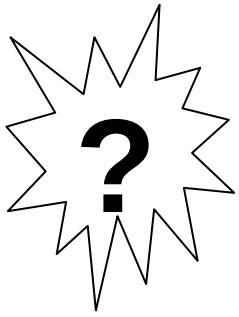
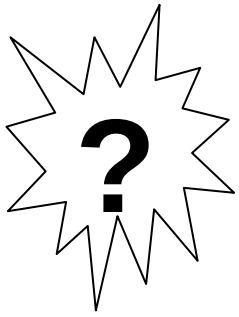
Name:
Date:

Tic-Tac-Question

Title: _____

Author: _____

Choose three question starters across, down, or diagonally. Think of a question that begins with these words.

When is/are . . . ? 	**Why did . . . ?** 	**How is/are . . . ?** 
How did . . . ? 	**When did . . . ?** 	**Why can . . . ?** 
Why is . . . ? 	**How can . . . ?** 	**When can . . . ?** 

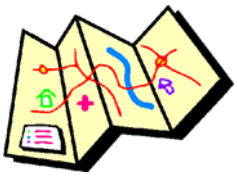
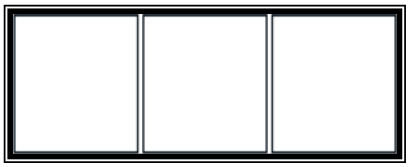
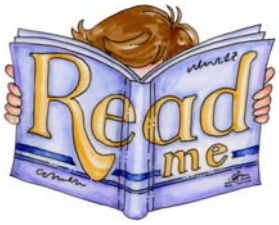
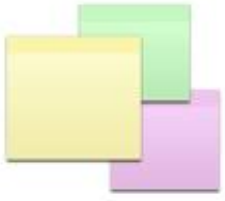
Adapted From: Southall, M. (2007). *Differentiated literacy centers: 85+ leveled activities - with reproducible planning sheets and student pages - to support centers in fluency, reading comprehension, and word study*. New York, NY: Scholastic.

Name:
Date:

Tic-Tac-Tell

Title:_____ Author:_____

Choose any three of the retelling strategies from the chart below.
You must make a line, either across, down, or diagonally.

 Explain how the character is like (or not like) someone you know.	 Describe the feelings the character felt in the story.	 Retell the important things the character said. (Quotes)
 What are the clues that tell us where the story happened? (Setting)	 List the places where important events happened.	 Draw a map of the places where the story happened.
 Draw a comic strip of three things that happened in the story.	 Write a book jacket summary that would make people want to read the story. (Synopsis)	 Record three major events on sticky notes, and place them in the correct order.

Adapted from: Southall, M. (2007). *Differentiated literacy centers: 85+ leveled activities - with reproducible planning sheets and student pages - to support centers in fluency, reading comprehension, and word study*. New York, NY: Scholastic.

Name:
Date:

Turn It into a Question

Title of Book: _____ Author: _____

Title or Heading	Turn It into a Question	Read to Answer the Question

Adapted From: Gear, A. (2008). *Nonfiction reading power: Teaching students how to think while they read all kinds of information*. Portland, ME: Stenhouse Publishers.

Name:
Date:

Two Column Notes

Topic:

Terms, Facts, etc.	Notes

Fold right half of paper over to black line to use as a study sheet.

Adapted From: Pauk, W. (1974). *How to study in college*. Boston, MA: Houghton Mifflin.

Name:
Date:

Vocabulary Squares

Sentence	Variations of the Word
Image	Definition

Sentence	Variations of the Word
Image	Definition

Adapted from: Burke, J. (2000). *Reading reminders: Tools, tips and techniques*. Portsmouth, NH: Boynton Cook Publishers Inc.

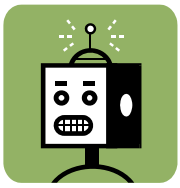
Name:
Date:

What Kinds of Questions Do They Ask?

Title: _____ Author: _____

Think of a question that each of these four characters would ask:

Robot: I can find the answer quickly on one page.
Detective: I will look in more than one place for clues to the answer.
Judge: I will give my opinion about what happened.
Inventor: I will think about how I would use this information.



Who? What? Where? When?

How? Why? Give reasons why… Explain…

Were they right? Do you agree? What is your opinion?

What would you do? What would happen if…?

Adapted From: Southall, M. (2007). *Differentiated literacy centers: 85+ leveled activities - with reproducible planning sheets and student pages - to support centers in fluency, reading comprehension, and word study*. New York, NY: Scholastic.

Name:
Date:

What? So What? Then What?

What?	So What?	Then What?

Adapted From: Brownlie, F. (2007). DART: District assessment of reading team. Consortium of BC School Districts.

Name:
Date:

What's In, What's Out?

Vocabulary Words:

IN	OUT	NOT SURE

Adapted from: *Reading 44: A core reading framework*. (2004). North Vancouver, BC: School District #44.

Name:
Date:

Word Keeper

What words in the story were new, interesting, confusing or important to you? Write the word in the correct box and record the page number. Be ready to discuss what words you chose and why.

A	B	C	D
E	F	G	H-I
J-K	L	M	N
O	P-Q	R	S
T	U-V	W-X	Y-Z

Adapted From: Strickland, K. (2005). *What's after assessment? Follow-up instruction for phonics, fluency and comprehension*. Portsmouth, NH: Heinemann.

Sample Lesson Plans

In the following section, I have included several sample lesson plans that use the resource materials to target specific reading comprehension strategies. These lessons are meant to serve as examples only, as each of the resource materials are easily adaptable for use in a variety of subject areas and at a variety of grade levels.

Becoming THIEVES

Grade: 7 **Subject**: Math **Comprehension Strand**: Text Features

Overview & Purpose • Students will practice using text features to preview an upcoming chapter or new concept.	**Prescribed Learning Outcomes** • Students should be able to use text features to locate information (e.g., copyright, table of contents, headings, index, glossary, diagrams, sidebars, hyperlinks, pull-quotes) (British Columbia Ministry of Education, 2006, p. 596).
Materials	• Math Makes Sense 7, Becoming THIEVES, Pen or Pencil
Objectives	• Students will use Becoming THIEVES to help them learn how certain text features help to organize information in a textbook. They will then use these text features to help them locate information.
Background (Previous Lessons)	• Students will be starting a new chapter or unit in Math Makes Sense 7.
Pre-Reading (15 minutes)	• Teacher will distribute copies of the Becoming THIEVES organizer. • Teacher will describe each of the sections of the organizer with the class, explaining what is required in each section.
During-Reading (35 minutes)	• Students will read through the new chapter, completing each section of the Becoming THIEVES organizer as they read.
Post-Reading (15 minutes)	• Teacher will bring class together as a large group, and will review each of the sections on the Becoming THIEVES organizer, asking for student contributions. • Students should follow along and make changes to their sheet as necessary.
Summary (10 minutes)	• Teacher will facilitate a class discussion about the importance of text features for organization, ease of locating information, etc.
Assessment and Evaluation	• Teacher will collect Becoming THIEVES organizers at the end of the class period.
Adaptations	• Students could work in partners or small groups to complete the Becoming THIEVES organizer.
Extension Activities	• In lieu of the summary class discussion, students could write a short paragraph regarding the importance of text features.

Frayer Model

Grade: 7 **Subject**: Science **Comprehension Strand**: Vocabulary Development

Overview & Purpose	**Prescribed Learning Outcomes**
• To introduce and reinforce vocabulary from the grade seven Rocks & Minerals unit (Sedimentary, Igneous, Metamorphic).	• Middle school students will increase word skills and vocabulary knowledge by analyzing the origins and roots of words and determining meanings and uses of words based on context (British Columbia Ministry of Education, 2006, p. 421).

Materials	• Science Probe 7, Frayer Model, pen or pencil.
Objectives	• Students will learn to use the Frayer Model to help them comprehend and contextualize new or unfamiliar vocabulary. They will practice reading expository text independently.
Background (Previous Lessons)	• Students will have been working on Unit C in Science Probe 7 – Rocks & Minerals.
Pre-Reading (10 minutes)	• Introduce new vocabulary from rock unit: Sedimentary, Igneous & Metamorphic. • Students will make predictions about what they think the new terms mean. • Teacher will record the predictions on the overhead. • Introduce Frayer Model organizer, and demonstrate its use with a term from previous unit of study (i.e. Ecosystems or Chemistry). • Explicitly teach "examples" and "non-examples" using well-known terms.
During-Reading (30 minutes)	• Students will read Chapter 7 from Science Probe 7. • As they read, students will makes notes using their Frayer Model organizers. • One organizer will be completed for each term (Sedimentary, Igneous & Metamorphic). • Notes should include definition, characteristics, examples and non-examples.
Post-Reading (15 minutes)	• Working in partners, students will compare their Frayer Models with their peers. • Students will make adjustments or modifications to their own notes as needed.
Summary (15 minutes)	• Whole class will discuss three vocabulary terms. • Teacher will facilitate creation of a group Frayer Model for each term on the overhead or front board. • Students will have another opportunity to make modifications to their own notes.
Assessment and Evaluation	• Teacher will collect three Frayer Models from each student for assessment, either at the end of the block or the following day.
Adaptations	• Students who struggle with independent reading could be partnered to read text aloud. • Students could be partnered or grouped in threes for the entire activity, and would be responsible for submitting one set of Frayer Models as a group. • Students who struggle with written output could draw pictures to represent their thinking in the "examples" and "non-examples" sections of the organizer.
Extension Activities	• To assess comprehension of the new vocabulary terms, students could be asked to write a paragraph describing the three rock types.

IQIQU

Grade: 6 **Subject**: HACE **Comprehension Strand**: Making Connections

Overview & Purpose	**Prescribed Learning Outcomes**
• To encourage students to make connections as they read (or view), including Text-to-Text, Text-to-Self, and Text-to-World.	• Middle school students should be able to access prior knowledge to make connections before reading, and construct, monitor, and confirm meaning during reading by making connections with prior knowledge and experiences (British Columbia Ministry of Education, 2006, p. 373).

Materials	• The Lorax video, IQIQU, pen or pencil.
Objectives	• Students will learn to use IQIQU to respond to a video version of The Lorax, a story originally written by Dr. Seuss. • Students will learn to make connections as they view the video that help to aid in their overall comprehension.
Background (Previous Lessons)	• Students will have been learning about consumerism and environmental issues in HACE (Health and Career Education).
Pre-Viewing (15 minutes)	• Introduce IQIQU organizer, and explain to students that today's lesson focus will be on making connections. • Teacher will lead brainstorm about three connection types: Text-to-Text, Text-to-Self and Text-to-World. • Provide explicit examples using a familiar image or text.
During-Viewing (25 minutes)	• Students will view The Lorax video. • As they watch the video, students will complete the IQIQU organizer, with a focus on the "U" or connections section.
Post-Viewing (15 minutes)	• Working in pairs, students will compare their IQIQU sheets with a partner. • Students will make adjustments or modifications to their own notes as needed.
Summary (15 minutes)	• Whole class will discuss The Lorax video using the IQIQU notes as a prompt. • Teacher may choose to record discussion on the front board.
Assessment and Evaluation	• Teacher will collect IQIQU organizers from each student at the end of the block.
Adaptations	• Students who struggle with written output could work with a partner or have someone scribe their notes for them. • Students could complete the IQIQU sheet using a print version of The Lorax.
Extension Activities	• Students could design a print advertisement for a "thneed." • Students could write a paragraph connecting the issues presented in The Lorax with an issue that is taking place in the world today.

What's In, What's Out?

Grade: 8 **Subject**: S.S. **Comprehension Strand**: Summarization / Main Idea

Overview & Purpose • Students will practice identifying key terms that relate to the main idea or important details in a text. • They will then use these key terms to write an efficient summary.	Prescribed Learning Outcomes • Middle school students should be able to read selectively to determine the importance of ideas/events, and to differentiate between main ideas and supporting details (British Columbia Ministry of Education, 2007, p. 105). • Middle school students should be able to reflect, respond, summarize and synthesize after reading in order to apply their new ideas (British Columbia Ministry of Education, 2007, p. 107).
Materials	• Pathways: Civilizations Through Time, 20 Word Summary, pen or pencil.
Objectives	• Students will learn to use the 20 Word summary to help them pull out key terms and then summarize a reading on "Daily Life during the Renaissance."
Background (Previous Lessons)	• Students will already be familiar with the birth of the Renaissance, and will have read about its origins in Northern Italy. • Students will be familiar with the components that make up a strong summary and will have practiced writing summaries in previous lessons.
Pre-Reading (15 minutes)	• Teacher will distribute copies of the 20 Word Summary. • Teacher will remind students how to recognize important features in expository text (i.e. headings, bold terms). • Teacher will have students fill in the "Topic" section of the 20 Word Summary organizer: "Daily Life during the Renaissance." • Teacher will remind students about proper paragraph form (i.e. topic sentence, supporting details, and conclusion).
During-Reading (25 minutes)	• Students will read pages 218-219 of Pathways: Civilizations Through Time. • As they read, students will record up to 20 key terms from text onto their 20 Word Summary organizer. • Notes should include definition, characteristics, examples and non-examples.
Post-Reading (15 minutes)	• Working in pairs, students will compare their selected key terms with a partner. • Students will make adjustments or modifications to their own lists as needed.
Summary (15 minutes)	• Each student will use his or her list of key terms to write a summary of the reading. • Students will be reminded about proper paragraph format.
Assessment and Evaluation	• Teacher will collect 20 Word Summaries and completed summary paragraphs at the end of the block or the following day.
Adaptations	• Students that struggle with independent reading could be partnered up to read text aloud, or could use a read-aloud software program like Kurzweil. • Students could be partnered or grouped in threes for the entire activity, and would be responsible for submitting one summary for the group. • Teachers could provide students with sentence starters or prompts for their summary paragraph (i.e. first, next, then, finally.)
Extension Activities	• Students could complete a Venn diagram to compare and contrast daily life during the Renaissance with their own daily lives today.

What Kinds of Questions Do They Ask?

Grade: 6 **Subject**: L.A. **Comprehension Strand**: Questioning

Overview & Purpose	**Prescribed Learning Outcomes**
• Students will practice asking and answering questions that access different types of information. • Students will become aware of different question types.	• Middle school students should be able to generate thoughtful questions after reading to confirm and extend meaning. (British Columbia Ministry of Education, 2006, p. 374).

Materials	• Novel (class set or individual student selections), What Kinds of Questions Do They Ask?, pen or pencil.
Objectives	• Students will learn to use What Kinds of Questions Do They Ask? to generate thoughtful questions about their reading.
Background (Previous Lessons)	• Students will have read the first few chapters of their novels.
Pre-Reading (15 minutes)	• Teacher will explicitly demonstrate the four question types: Robot, Judge, Detective, and Inventor, creating questions based on a text that is familiar to all students. • Students can contribute possible question types, following the teacher's examples. • Teacher will distribute a copy of the organizer to each student. • Students will be assigned a selected chapter or section of their novels.
During-Reading (20 minutes)	• Students will complete the assigned reading task.
Post-Reading (15 minutes)	• Students will create one or two questions for each of the four sections on the organizer (Robot, Judge, Detective, and Inventor.) • On a separate piece of paper, students will jot down the answers to the questions they have generated.
Summary (25 minutes)	• Students will trade their question organizer with a partner who is reading the same novel. • Using their novel as a reference, the students will answer the questions their partner has generated. • After both partners have finished, they will conference to compare their answers, and make any necessary changes.
Assessment and Evaluation	• Teacher will circulate to observe student conferences, and may choose whether or not to collect student organizers.
Adaptations	• Students who struggle with independent reading could be partnered to read text aloud, or could use a read-aloud software program like Kurzweil. • Teacher or assistant could complete a question sheet and partner with a struggling student who needs extra support with question generation.
Extension Activities	• Students could complete an additional organizer for the following chapter or selection of text, basing their questions on predictions or inferences they made from the previous section.

Predict and Infer

Grade: 8 **Subject**: L.A. **Comprehension Strand**: Predicting / Inferencing

Overview & Purpose	**Prescribed Learning Outcomes**
• Students will practice making predictions and inferences based on events in a narrative. • Students will confirm or refute their predictions after reading.	• Middle school students should be able to make logical predictions before and during reading, and that they should be able to make inferences and draw conclusions during and after reading. (British Columbia Ministry of Education, 2007, pp. 105-106)

Materials	• The Outsiders novel, Predict and Infer, Pen or Pencil.
Objectives	• Students will learn to use Predict and Infer to help them make predictions and inferences before and during reading.
Background (Previous Lessons)	• Students will have recently read Chapter 3 of The Outsiders, and will be familiar with most of the major characters in the novel.
Pre-Reading (15 minutes)	• Teacher will distribute copies of Predict and Infer. • Teacher will explain that students will make predictions based on clues from their reading, and that they will confirm the accuracy of these predictions after reading.
During-Reading (35 minutes)	• Students will skim back through Chapter 3 of The Outsiders. • Students will choose 3-5 events from this chapter to record on their Predict and Infer organizer under the "Events" column. • Based on these events, students will make predictions and record them under the "What I think will happen" column. • Students will then support their predictions / inferences with clues from the novel and record these under the "Clues from the novel" column. • Students will read Chapter 4 of The Outsiders.
Post-Reading (15 minutes)	• Students will confirm or refute each of their predictions / inferences, recording their results in the "What actually happened" column. • Students will compare their predictions / inferences and the actual events with a partner.
Summary (10 minutes)	• Teacher will facilitate a class discussion about the predictions / inferences students' made. • Teacher should focus on any students who made relatively accurate predictions / inferences, and the clues they used from the novel to support these. • If no students made accurate predictions / inferences, teacher should ask students to look back at the previous chapter for clues the author may have left.
Assessment and Evaluation	• Teacher will collect the Predict and Infer organizers at the end of the block.
Adaptations	• If extra support is needed with predicting or inferencing, the whole group could complete the first three columns of the Predict and Infer organizer as a class, and complete the post-reading activity individually.
Extension Activities	• Teacher may wish to discuss the concept of "foreshadowing" as a literary device.

Conclusion

My hope is that the materials contained within this resource will be accessible and adaptable for middle school teachers in all subject areas and at all grade levels. A hard copy of the resource is available, but the materials contained within it are also accessible on the district literacy website (http://literacy.sd63.bc.ca/mod/resource/view.php?id=82), where they can be downloaded, saved and altered as needed by individual teachers. It was important to me that content-area teachers would find my resource flexible enough to fit within the parameters of their curriculum, as the research shows that the more consistently students are exposed to reading strategies in a variety of situations, the more likely these strategies are to contribute to student understanding (Pesa & Somers, 2007).

Creating materials that were accessible for a wide range of student capabilities was also an important goal when creating this resource. It was also important to me to include materials that could be utilized with a wide range of text types and levels. If one student was reading the class textbook, while another was reading an adapted version with less complex content, and yet another was watching a video, all three of these students could still represent their learning in a similar way.

In addition to the materials themselves, I have also included several example lessons that showcase some possible uses for the materials contained within the resource. I deliberately decided against the inclusion of a specific scope and sequence, as the literature strongly suggests that teaching students to read strategically is both an individual and a dynamic process (Duke & Pearson, 2002), which requires teachers to constantly adapt and modify their instruction to fit the needs of their students. As Allington (2002) reminds us, “exemplary reading instruction … cannot be packaged or regurgitated from a common script because it is responsive to children’s needs” (p. 740).

I did want teachers, however, to see how the materials contained in the resource could be flexible, and how they could be adapted for use in a variety of subject areas.

I also included some specific assessment tools that align with the instructional recommendations in the literature: student self-regulation and assessment (Cantrell et al., 2010; Dennis, 2010) (e.g. self-assessment rubrics, and think-alouds) (Allington, 2002; Henry, 2003; Wilhelm, 2001). I have provided some examples of how these instructional strategies might look in the middle school classroom, and how they can be used as a supplement to more formalized methods of reading assessment (like the DART). These forms of assessment can be used throughout the year to help track student progress and promote student self-regulation, and allow teachers to adjust their instruction to better fit the needs of their students. My hope is that the information in this resource will assist teachers in utilizing strategy-based reading instruction in their classrooms, and ultimately, that these teachers will experience success as a result.

Chapter 4

Reflection

I originally undertook this Master's program after six years of work in the Saanich School District. As a teacher on call, I moved from classroom to classroom, absorbing a variety of instructional strategies and techniques from the teachers I worked for. In 2005, I secured my first contract teaching ELS (English Language Support), a program directed at comprehension and vocabulary development for First Nations students. It was during this contract that I first became aware of the desperate need for reading comprehension instruction materials that were appropriate and engaging for middle school students. I also became aware of the extraordinary range of skills possessed by students in Grades 6 through 8. When I pulled out selected students for participation in my reading program, I was thrilled to see how happy they were to be reading materials at their own reading level, and spending time learning basic strategies that they could use when they returned to the classroom. Unfortunately, the whole-group instructional model for reading used in many of their classrooms was simply not meeting their needs, and they were falling further and further behind their peers. At some point, it just became easier for many of these students to give up rather than to admit that they needed help.

Once in the fall and once in the spring, these students, along with their peers, were being assessed using a district-mandated assessment called the DART. The results were tabulated and sent to the district, but few of the teachers were actually examining the data or using it to guide their instruction. They simply continued to use the reading instruction model they had employed in their classrooms for years, without adapting or modifying it

to fit the needs of their current group of students. My ELS students became disengaged and apathetic towards their classroom learning. The textbook content at middle school was more difficult, and their acquired strategies were simply not adequate for the tasks they were being asked to complete. Finding text at alternate reading levels was possible, but adapting the reproducible worksheets used in conjunction with the textbook to fit these alternate texts was a challenge. While I tried my best to support my students, I worked with them only a few blocks a week over a period of three months. This simply was not enough time to bridge the gap that was beginning to widen between these students and their peers.

As a result of this experience, I was interested in undertaking a Master's program specifically geared towards the language and literacy needs of middle years' students. I was interested in learning about how reading skills and strategies developed, and how teachers could support this development. Being trained as a secondary English teacher, I was unfamiliar with the strategies and techniques used to teach younger children to read and comprehend. As the program progressed, I began to think more and more about how I could construct a final project that would allow me to address some of the needs I saw represented in my middle school classrooms. I was interested in learning how to use reading comprehension assessment data in a meaningful way in my classroom and a way to cohesively integrate the instruction of reading strategies into my practice without taking away from the content. I wanted something other than a formulaic reading program; something that I could customize and adapt to fit the actual needs of the students in my classroom, something that would change with them as they grew and progressed over the course of the year. Interestingly enough, other teachers in the district were feeling the same way. As a member of my school literacy team, and a representative

on the district literacy committee, I was meeting regularly with like-minded educators who recognized the importance of effective reading comprehension instruction at the middle school level. I was approached by our district instructional support teacher for literacy to create a resource for middle school teachers that was linked to our formalized literacy assessment (DART) but that could also be used across the curriculum to teach and reinforce comprehension strategies with a variety of leveled texts. It was then that I decided that this resource would also be an ideal focus for my Master's project.

While the purpose of this resource was clear, it was the creation of it that proved to be most challenging. As supported by the literature, many of the best organizers I found did not focus on a singular reading strategy, but rather required the students to use clusters of strategies in order to represent their comprehension (National Institute for Literacy, 2007). This discovery made things difficult, as I was specifically aiming to create a resource that was separated into sections based on the major strands of reading comprehension so it could be linked directly to the results of the DART. It was not until I reviewed the literature on strategy-based reading instruction that I realized that it was acceptable, and perhaps even preferable, to have materials contained within the resource that required students to activate more than one reading strategy at a time. For example, IQIQU (Gregory, 2010) requires students to generate an insightful question, make a personal connection, and identify and summarize the main idea in the text. Organizers like IQIQU are excellent because they can be utilized with a wide range of text types and levels (books, magazines, films or still images) and they require students to engage the cluster of strategies as recommended in the literature. The research reveals that good readers use comprehension strategies in conjunction, not in isolation (Brown, 2002; Duke & Pearson, 2002; National Institute for Literacy, 2007). As a result, I aimed to create a

resource containing materials that allowed teachers to focus on individual reading strategies based on the needs of their students, but that also contained materials that required students to utilize more than one reading strategy at a time.

The next challenge was to determine how the resource would be presented to teachers. So often we are provided with a 'black-line master' style resource which is easily photocopied, but not easily modified if teachers require changes for their specific curriculum. I wanted to ensure that the final product was useful for all middle-school teachers across the curriculum. While I believe that many teachers would appreciate the ease of accessing comprehension materials in the school photocopy room for last minute lesson plans, I also know that others will be equally grateful that they can alter the materials to fit with the theme of a specific lesson or unit they are teaching. As Shanahan and Shanahan (2008) remind us, forcing content-area teachers to teach reading comprehension using formulaic strategies is not effective. We must allow those teachers to "jury-rig existing [strategies] so that they [will] more directly and explicitly address the specific and highly specialized disciplinary reading demands" of their subject areas (Shanahan & Shanahan, 2008, p. 57). With the support of current research, I was able to create a resource that I believe will be valuable to teachers of language arts, as well as teachers of subject-specific disciplines. It was important to me that content-area teachers would find my resource flexible enough to fit within the parameters of their curriculum, as the research shows that the more consistently students are taught how to apply reading strategies in a variety of situations, the more likely these strategies are to contribute to student understanding (Pesa & Somers, 2007). I believe that my resource is applicable to students at a wide range of grade levels, and that the materials contained within it are accessible for students, regardless of their current reading level.

With this in mind, it was important to me to include documents that could be useful in a variety of situations. As the curriculum suggests, the diversity represented in today's classrooms can prove challenging for teachers: "As teachers teach the curriculum, they aim to include all students, working toward common expectations with different amounts of support, different texts, different strategies, and a variety of class organizational patterns. One size does not fit all" (BC Ministry of Education, 2006, p. 25). The materials included in my resource are specifically geared towards the use of levelled texts, and they provide all students with an opportunity to represent their learning, regardless of reading level. This creates a feeling of connectedness in the classroom, which is such an important part of developing self-efficacy in middle school. Even if students are reading texts at different levels, they can still experience a feeling of camaraderie with their peers, and can engage in discussions about the strategies they used as they read, or the information contained within their parallel graphic organizers.

Most teachers are familiar with more formalized methods of assessment (like the DART) but are perhaps less familiar with ongoing forms of assessment that can be used in the context of the classroom to monitor student comprehension, and to teach students to start thinking about their own learning process. I have included three versions of such assessments, including a student think-aloud rubric, a teacher and student assessment, and a student self-assessment for use with the KWHL chart. These are meant to serve as examples for the types of assessment that should be taking place over the course of the school year. These are undoubtedly the most valuable forms of assessment, providing teachers with information that will help them to adapt and modify their reading curriculum.

Over the past two years, I have learned that teaching reading comprehension to middle years' students is not a simple task. There is no 'one-size fits all' approach, methodology or program that we can apply to our students year after year. As Piaget's work reminds us, "learning is an active process in which learners construct their own understanding of how the world works, instead of … a process in which students passively receive information or apply rules with little understanding" (Eggen & Kauchak, 2004, p. 54). Teaching reading comprehension, just like teaching in any other subject area, involves spending a considerable amount of time getting to know students, and then developing instructional strategies that meet their individual learning needs and styles. In order to shape instruction, teachers must first accurately assess what skills students already possess, and those which they still need to acquire. We must also recognize that these needs and skills will not remain static, but that they will continue to grow and develop over the course of the year. As noted by the National Institute for Literacy, "[e]ffective instruction depends on sound instructional decision-making, which, in turn, depends on reliable data regarding students' strengths, weaknesses, and progress" (p. 27). Teachers need to continually and authentically assess student progress, and to actively involve their students in setting goals for their own learning. If students are aware of their own strengths and weaknesses as readers, they are more likely to engage in activities that will aid in their progress and development. If the goal is to create independent, self-regulated and strategic learners, teachers must also provide students with adequate opportunities to work with the reading strategies being taught, both on their own and with their peers. Students need to be provided with direct and explicit instruction, and be carefully guided in their use of newly acquired strategies. Students need them time to reflect on their choices, and on the effectiveness of specific strategies

for specific tasks. Instruction should be situated in a “context that features discussion, enhanced thinking about the usefulness of various strategies and apprenticeship-like application by students” (Misulis, 2009, p. 12). Teachers must also ensure that all of their colleagues are working toward a common goal. The review of the literature reveals how vital it is that reading comprehension strategies are clearly modeled and reinforced across the curriculum. This consistency requires teachers to set aside time to collaborate with their colleagues, and to ensure that the administrative team recognizes the value of this collaboration. It is also teachers’ responsibility to actively seek professional development that will support their own growth as educators, and that will in turn support their students. Literacy assessment is not just for the district to collect statistics for the annual report; it is for teachers to effectively inform and transform their daily practice.

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