

***A Responsive Approach:
The Need for Explicit Teaching of Reading Strategies in the Content Areas***

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Abstract

This article examines qualitative data that emerged from three separate interviews with secondary content-area teachers addressing concerns with teaching literacy. Data gleaned from the interviews showed common themes existing across the curriculum: the deep connection between reading comprehension and the quality of responses; the link between reluctant reading and a lack of overall engagement in the learning task; and lastly, the need for content-specific literacy instruction within the context of the classroom. The latter section of this article addresses implications by responding to the comments provided by the participants, considering specific content-area curricular outcomes, and connecting other research in the field. Specific references are included regarding Saskatchewan's renewed English Language Arts, 9 Science 9 and Math 9 curriculum (2009). Although limited in scope, this small scale study provides useful data that directs readers towards a consideration of common literacy concerns across content-areas at the secondary level.

Six small glass jars of paint sit in a neat row, each filled with either red, yellow, blue, green, orange or purple. The paint jars sit on a clean, white canvas and are left untouched. Below each jar is a caption: literature, geometry, art, health, biology, and history. The metaphor of the school day as nicely compartmentalized jars of paint, left untouched, atop a clean canvas, poses a very institutionalized, dry impression of a day in the life of a secondary student. Contrast that image to one with overturned paint cans spilling paint onto an already splattered canvas, colours mixing together, without order or design, yet engaging and informative. The latter image, the messy, chaotic one, also has a caption: life. What these two contrasting images do for the educator is represent a very difficult concept to face: that by compartmentalizing content areas and failing to make cross-content connections, students are seeing school and life as opposing ideas. It is true that life outside of school contains all content areas at the same time at any given moment, is chaotic and messy and unpredictable, and yet is also highly educational. What if students experienced a school day where they were able to see the underlying connective thread between their content-area classes? Teachers in the content-areas would need to first be able to

identify the name of such a thread, and then be able to competently use it to make connections for students that naturally exist across the curriculum.

The focus of my research, conducted through interviews of secondary educators, is to argue for cross-content reading instruction at the secondary level and advocate that reading, in its varied forms, is a connecting thread for all content-area classes. This paper will discuss the methods used during research, provide data in the form of transcripts from three interviews, and will provide a discussion of reading strategies and teaching models that may further support the teaching of reading across the curriculum. Connections to Saskatchewan's math, science and English language arts grade nine curriculum (2009) will be used throughout, with these three subject areas the target of this call for interdisciplinary literacy work.

The term literacy is used in a broader context here, and implies many layers of meaning. Literacy exists in all content areas, and goes beyond the basic ability to read, write, speak and listen, instead requiring that one must be able to communicate with others using the discourse of an academic discipline (Heller & Greenleaf, 2007; Schrock, 2014). This means that literacy is complex, multi-faceted, and best addressed within the context of content-area study.

Review of the Relevant Existing Literature

Previous studies related to literacy instruction have identified the necessity of explicitly taught reading strategies such as setting a purpose for reading (Tovani, 2000, 2014; Smith & Wilhelm, 2004), activating prior knowledge (Anderson & Hite, 2010), teaching context specific vocabulary (Gallagher, 2004), incorporating media literacies into reading instruction (Hobbs, 2001), and making inferences by activating *schema* (Anderson & Hite, 2010; Harvey & Daniels, 2010).

Other relevant literature has identified ways to increase learner engagement by focusing on learner competence (Smith and Wilhelm, 2004), and providing students with choice (Kittle, 2013), as well as the need to scaffold reading strategy instruction so that eventually learners are able to independently strategize when they read a new and challenging text (Anderson & Hite, 2010).

Participants

This research began as a mixed-methods study where I worked with ten secondary educators. The ten participants completed a questionnaire (Appendix A) about what reading strategies they were currently using; what common struggles they observed in students' reading

abilities; their background training or education in teaching reading; and what supports would be beneficial to them as educators. From the results of the initial questionnaire data, it was found that there were commonalities among the responses, providing evidence to support that reading exists in all content areas and all participants saw reading as something necessary for students to be able to do well in their subject area. At the end of the questionnaire, participants were given the opportunity to volunteer to be interviewed in a semi-structured format (Appendix B). Three participants agreed to this time commitment.

The questions for the interview varied, given the semi-structured nature, but all three participants were asked questions relating to the ways literacy is promoted in their classroom; their observations of struggling and reluctant readers; specific content-area reading strategies that exist in their area of expertise; the amount of accessible professional development in the area of reading strategies; and current practices involving reading strategies used in the participants' teaching. Each interview took between twenty-five and thirty minutes to complete, and pseudonyms are used as participant anonymity was a component of the ethics requirements of the study in terms of dissemination of results.

Interview data were analyzed by determining large emerging themes from the participants' comments and connecting these themes to broad ideas from previous research (Berg, 2009 and Merriam, 1998). These themes were then categorized and given headings, which will be addressed in the findings and discussion section of this article. Although the limited sample size prevents a solid extrapolation of this study outside its narrow context, results were intriguing, pointing to particular resources that might assist the teachers interviewed in support of literacy teaching across the curriculum and highlighting the need for additional research in this area.

The Participants

Mary, a resource room teacher, had been teaching for more than twenty years. *Mary* brought a unique perspective to the study, as she assisted students with a variety of content in a resource room setting and often saw students as they struggled to get through assigned reading in a variety of learning environments.

Wolfgang taught junior science and had been teaching between eleven and twenty years. In *Wolfgang's* questionnaire and interview, he related many of his experiences to using and implementing technology in his teaching.

Allen taught both English language arts and drama. *Allen* had taught between eleven and twenty years. *Allen*'s experiences teaching two subjects that rely very heavily on printed text were very valuable in finding out what resources may be needed to help reluctant readers.

Findings and Discussion

The Connection Between Reading and Responding

All three interviews revealed similar comments in regard to the connection between reluctant and struggling readers' assignment proficiency and their struggle with reading. *Mary* discussed her observation of students who struggle with being able to complete word problems in math because they cannot comprehend the question, and also noted that students were struggling with navigating research articles and therefore could not make jot notes or summarize: "I think they scan to find the answer, but they don't actually do the whole reading... And sometimes they think they're doing research, so they'll go on a website and cut and paste whole paragraphs and put it in as jot notes." *Mary* found that her students lacked the reading comprehension skills necessary to succeed in math and research, indicating that an increase of explicit reading strategy instruction was needed in these areas.

Allen referred to his drama classes and how students struggled with reading scripts and moving practice into performance. He identified that some students had difficulties with comprehending the text features of a script: "In some ways, they have to read a little bit deeper in a drama class." *Allen*'s interview revealed that reading instruction has a place within a drama class given the complex nature of understanding subtext, and text features of a script, in order to be a successful actor.

Wolfgang also talked about his frustration with students' output of work, where he saw written responses to science articles that were often terse and lacked complexity. *Wolfgang*'s interview revealed that with more instruction on how to navigate and pull meaning from academic articles, he believed that the responses from students would likely become more insightful.

It is clear from the comments in all three interviews that the participants were concerned that when students struggled with reading, their course work suffered as a result. This supported the need for explicit teaching of reading strategies in all content-area classes to provide quality evidence of student learning.

Student Engagement

A second theme that emerged in the interviews was one of student engagement. Participants were clearly frustrated by the lack of engagement in tasks requiring students to comprehend text, and several comments were made that referenced students trying to cheat or cut corners. Both Mary and Allen reflected on frustrations when they observed students producing weak and superficial work. Mary commented that "They might take their English questions and might put it into *Ask Jeeves*... and get the answer that way." Similarly, Allen said when students are asked to come up with their own comprehension questions, "the results are superficial at times. I sense that they have understood what they have read and they can create the questions, but they'll settle for the easiest thing and I'll end up reading *Spark Notes*." The students' weak and superficial output of work seemed to be in direct relation to being disconnected and disengaged to the overall purpose and intent of the activity, increasing their tendencies to cheat and plagiarize from the internet. When students cheat and plagiarize their work it does little to show evidence of their reading comprehension ability. Thus, an argument can be made that calls for explicit teaching of reading strategies that could encourage and increase learner engagement, resulting in less temptation to cheat and increased quality of student assignments.

Content-Specific Reading Instruction

The third and most common theme that emerged from the interview data was the need for reading strategies specific to course content. Mary made a powerful comment during her interview when she was asked what might assist students in overcoming reading comprehension issues. She responded that what would help would be "if that instruction happens in the classroom where everyone has the same reading goal." The argument in this article is for the explicit teaching of reading in all content-areas, by content-area teachers. Within the context of a classroom, learned strategies will have the greatest possible effect because all students are working on achieving a similar curricular outcome and the strategy learning will be relatable within the context of the course content.

When Wolfgang was asked if there were specific science curricular outcomes addressing reading, he was unaware of any, but did say that "[the instruction of reading] is in that if you are going to learn this [particular science] concept, you will learn those words." His comments reveal the importance of teaching vocabulary reading strategies in the context of a science class in order for students to properly comprehend course readings. Wolfgang was the only science

teacher interviewed, and thus the broader scope of teaching reading strategies in a science classroom is not included in this particular study. In Wolfgang's opinion, the teaching of vocabulary reading strategies is what would benefit his students in his science classes.

Allen noted the importance of students understanding tone when reading scripts, and also the necessity of inferencing, which is a high level comprehension skill. "If [the students] don't understand what their character is saying or doing, or that the other characters are just as important... certainly everything is subtext." Allen was referring to the need for explicit teaching of inferencing as a higher level thinking skill within the context of acting. He also talked about the importance of fluency in oral reading, which he experienced often as he taught students how to read scripts: "They wouldn't do a good job of paying attention when it was their turn to speak next... the tone of voice and the emphasis – they don't know which words to emphasize."

Mary recalled how students struggled quite often with word problems in mathematics and needed visual supports: "There's often a couple of word problems at the end of each [assignment] – once you draw a picture for them they are good to go.... I'll try and switch it sometimes so I'll read it in chunks and they draw the picture." Mary's comments revealed the need for explicit teaching of reading math word problems. If struggling readers are not able to navigate the word problem, they are also unable to show evidence of their thinking and their learning.

All three interviews emphasized that there are nuances and unique qualities in terms of the types of reading tasks required of students in each content-area. What was made clear from the interview data is that reading instruction that occurs within the content-area classroom can attend to specific curricular outcomes and goals. By doing so, teachers can provide students with a clear purpose for the reading strategy.

Implications

The interviews revealed that there is certainly a need for content-specific reading instruction. In the following section the findings and discussion above will be addressed through the explanation of teaching strategies that might assist content-area teachers in addressing similar problems within their classrooms.

Reading and Responding

In addition to data from the interviews, the significance of the reading–responding connection is supported by a close examination of curricular documents. Close examination of

the English Language Arts 9, Science 9, and Mathematics 9 Saskatchewan Curricula (2009) confirms that all three content-areas require students to read and to respond. Each curriculum document begins with intended aims and goals of that particular subject. In English language arts, one of the learning goals is to “comprehend and respond” (p. 4). A similar learning goal, “construct scientific knowledge” (p.6), can be found in the science curriculum. And likewise, in mathematics, one of the aims is “logical thinking” (p.7) where students are asked to “develop and be able to apply mathematical reasoning processes, skills, and strategies to new situations and problems” (p. 8).

All three curriculum documents provide evidence that students are being expected to take in information, or to comprehend it, and create products that demonstrate their understanding. Yet the participants in the interviews revealed that students were not consistently able to do these things well. This calls for the teaching of specific reading strategies, such as setting a purpose for reading, which will increase the level of student output (Beers, 2003; Tovani, 2014).

One of the most basic reading strategies, and one that can assist students in making deeper reading/responding connections, is to set a purpose for reading (Beers, 2003; Tovani, 2014). The interviews revealed concerns with the quality of student output, and that students who struggled with the reading were producing weak, superficial and sometimes plagiarized products in response to their reading. Tovani (2014) mentions that students who do not see a purpose or relevance in the activity, will be more likely to cheat to get out of completing the task. A simple mini lesson that shows students how to set a purpose for reading (Appendix C) reveals the different ways one can read a text, and how different information is taken in depending on what the purpose of the reading task is. The activity, adapted from Tovani’s work (2000), is called *The House*. This activity works in any subject, but might be most effective in a class where students are asked to read informational text such as articles, perform research, or read out of a textbook and then be asked to product a type of response showing their understanding. The purpose of this reading activity is to show the reader that it is essential to have a clear purpose for the reading task, because the purpose will influence what the reader notices and pays attention to. In essence, having a purpose for reading assists the reader in maintaining a high level of focus, attention, and also increases overall reading comprehension levels. This same principle relates to Tovani’s argument (2014), that if readers read with a purpose in mind, their

desire to copy responses from the Internet may lessen, thus providing the instructor with a higher quality of evidence of student comprehension.

Student Engagement

During the interviews, both Allen and Mary revealed that they observed students skipping reading assignments and going straight to *Spark Notes*. Kittle (2013) would echo the arguments of Tovani (2014) and say that those students are not reading because they are disengaged and simply do not care about the text they were assigned. In order to increase student engagement, instructors may choose to incorporate the explicit strategies for teaching students how to activate prior knowledge (Beers, 2002), activate schema (Smith & Wilhelm, 2004; Anderson & Hite, 2010), employ reader-response journals (Rosenblatt, 1995), and undertake reading conferences (Kittle, 2010).

The term *schema* is defined as “a mental codification of experience that includes a particular organized way of perceiving cognitively and responding to a complex situation or set of stimuli” (Merriam Webster Dictionary, 2014). Anderson and Hite (2010), argue that students need to activate their *schema* of a particular concept or topic in order to fully comprehend it, and arguably, in order to be fully engaged with it. A person’s *schema* is constantly changing as new knowledge is added to existing knowledge. Smith and Wilhelm (2004) argue that by starting where a student feels competent, or has prior knowledge, the student will become increasingly engaged in trying a task that is new or challenging.

A teacher-directed approach towards activating *schema* can be initiated using the K-W-L graphic organizer (Beers, 2002). Students begin by brainstorming everything they *know* about the topic or subject (K), activating their schema; then they come up with key questions that they would like to look for in the text, or what they *want to know* (W); and lastly, they record new information that they *learned* (L) from the reading (Appendix D). During the reading, students are looking for their answers, to then write in the L column. The directed approach of filling in the chart maintains focus, provides a purpose, and increases engagement because students’ *schema* has been previously activated.

It is also critical to teach students to independently activate their *schema* (Anderson & Hite, 2010). One such strategy (Appendix F), useful in an English language arts or literature class, leads students through a process where they first examine the novel’s supplementary pages at the end of the book; then look at the beginning pages including the copyright information, the

foreword, the table of contents, and chapter titles; then move into reading the back cover; and ending with examining the illustration on the front cover. Students are asked to be detectives and gather as much information from the book itself in order to build upon existing schema before reading. This will in turn create a feeling of competence before beginning the reading task, increasing learner engagement.

Kittle (2010) purports that a student must have choice in order to increase engagement. One strategy content-area teachers may consider to increase student engagement is to implement reader-conferences (Appendix E). In this strategy, the student writes a response to the reading in a journal, and then discusses this response with their instructor. This idea also incorporates connecting to the text, inherent in Rosenblatt's (1995) ideas about reader-response. During the reader-conferences, the student shares their responses with the instructor, demonstrating their ability to make connections, and to comprehend the material. The increased accountability required inherent in the conferences theoretically increases engagement in the reading activity.

Content-Specific Literacy Instruction

The interviews of all three participants noted the importance of addressing content-specific literacy strategies to address content themes and outcomes. In every subject in the Saskatchewan K-12 Curriculum, there are four identical cross-curricular competences: developing thinking, developing identity and interdependence, developing literacies, and developing social responsibility. Table 1.1 demonstrates a comparison of three descriptions of *developing literacies* for Math 9, Science 9 and English Language Arts 9.

Table 1.1

Math 9

Through their mathematics learning experiences, students should be engaged in developing their understandings of the language of mathematics and their ability to use mathematics as a language and representation system. Students should be regularly engaged in exploring a variety of representations for mathematical concepts and should be expected to communicate in a variety of ways about the mathematics being learned. Important aspects of learning mathematical language is to make sense of mathematics, communicate one's own understandings, and develop strategies to explore what and how others know about

mathematics. The study of mathematics should encourage the appropriate use of technology. Moreover, students should be aware of and able to make the appropriate use of technology in mathematics and mathematics learning. It is important to encourage students to use a variety of forms of representation (concrete manipulative, physical movement, oral, written, visual, and symbolic) when exploring mathematical ideas, solving problems, and communicating understandings.

Science 9

Literacies are multi-faceted and provide a variety of ways, including the use of various language systems and media, to interpret the world and express understanding of it. Literacies involve the evolution of interrelated knowledge, skills, and strategies that facilitate an individual's ability to participate fully and equitably in a variety of roles and contexts – school, home, and local and global communities. **In science, students collect, analyze, and represent ideas and understanding of the natural and constructed world in multiple forms.**

English 9

Literacies are multi-faceted and provide a variety of ways, including the use of various language systems and media, to interpret the world and express understanding of it. Literacies involve the evolution of interrelated skills, strategies, and knowledge that facilitate an individual's ability to participate fully and equitably in a variety of roles and contexts – school, home, and local and global communities. To achieve this competency requires developing skills, strategies, and knowledge related to various literacies in order to explore and interpret the world and communicate meaning. **English language arts requires students to use different literacies, including language literacy, effectively and contextually to represent ideas and understanding in multiple, flexible ways.**

The comparison in table 1.1 provides evidence that curriculum writers intended for the teaching of literacy strategies to occur within the context of content-area classrooms. There are, of course individual nuances to each subject area, but the foundational skills needed to be able to comprehend and navigate a variety of text types are there in all three examples. This further

supports Britton's (1990) work in that language is synonymous with learning and is relevant in all content-areas.

Research-Based Strategies for Content-Area Reading

The data from the interviews calls for instructional support in teaching content-specific vocabulary, making inferences, and comprehending math word-problems. In response to Wolfgang's comments regarding the need for science students to learn and use science vocabulary in context, a sample lesson on teaching vocabulary is provided (Appendix G) adapted from the work of Gallagher (2004) where students memorize thirty of the most common prefixes, fifteen of the most common root words, and ten of the most commonly used suffixes. Especially in a course like science, which is so heavily reliant on complex vocabulary, the 30-15-10 chart (Gallagher, 2004) can be useful in teaching students how to recognize a word, or at least part of a word, in context. This reduces the need to stop and look the word up, which can slow down reading fluency. In addition to using the 30-15-10 chart teachers can ask students to define new words in context by predicting their meaning first before looking the word up. This can be done before a reading activity and can include sentences and vocabulary words from that day's reading.

Alan noted the importance of students understanding tone, fluency and inflection when reading scripts, and also inferences. To address these concerns, a mini-lesson (Appendix H) is provided that has students practice their voice inflection to reveal the differences between the ways a line may be delivered (Teachit, 2013). This strategy is useful within the context of a drama course because students become more aware of how the audience, or their partner, is inferring the subtext of the line by the way it is delivered.

To further extend the strategy of inferencing, a mini-lesson using images (Appendix I) can be used (Harvey & Daniels, 2010). Research has shown (Hobbs, 2001) that incorporating media literacies into lessons about comprehension will help students connect at a later date to other types of text. In this lesson, the teacher first chooses a powerful, relevant image to show the students. The process of image analysis has six steps: first impression, description, analysis, interpretation, background information and informed judgment. After the students go through the process, what the teacher would point out is that to make an analysis, students are inferring meaning derived from the clues that they see in the image. A direct tie can be made to how students make inferences while they read by combining their background knowledge to the clues

found in the text (Harvey & Daniels, 2010), or, in the context of Allen's lesson, the clues are found in the way the actor delivers his or her lines.

Mary's interview raised the issue that students who struggle to comprehend the text of math word problems struggle to complete the assignments in math class. To assist students' comprehension of math word problems, instructors may consider using the K-N-W-S- strategy (Appendix J). The K-N-W-S strategy (Barton & Heideman, 2002) is structured much like the K-W-L strategy, but is designed to help students learn how to navigate a word problem to first indicate what they *know* from the problem (K), what they do *not* need to solve the problem (N), *what* question is the problem asking them to solve (W) and what strategy or operation will they use to *solve* it (S). This simple graphic organizer provided in the appendix can be given to students to help them learn how a word problem is constructed, and also how to dissect it to focus on what they need to do to solve it

Conclusion

The narratives provided in the interview transcripts from Mary, Wolfgang and Allen in the findings and discussion section support the claim that there is a place for reading instruction in all content-area classrooms. The interview data provided the framework for the instructional strategies given in the implications section in order to assist content area teachers in addressing literacy needs within the context of their specific classes. Detailed explanations of each strategy can be found in the appendices of this article. It is clear that despite coming from three different teaching backgrounds, all three participants voiced similar frustrations in terms of the following: their students' weak output of evidence of learning; students' tendency to become disengaged in the reading process; and the importance of the reading-writing connection. The findings of this study have supported the primary argument that reading comprehension is the link that brings all content-areas together and must be explicitly addressed in context. Although more research is needed into which reading strategies work best in content-area classrooms, what this study has reinforced is a call for explicit reading instruction in all secondary classroom content-areas.

References

- Anderson, N. A., & Hite, C. E. (2010). Building comprehension for reading novels: The prereading schema building process. *New England Reading Association Journal*, 45(2), 26-31,102-103.
- Barton, M. L., & Heidema, C. (2002). *Teaching reading in mathematics: A supplement* (2nd ed.). Alexandria, VA: ASCD.
- Beers, G. K. (2003.). *When kids can't read, what teachers can do: A guide for teachers, 6-12*. Portsmouth, NH: Heinemann.
- Berg, B. L. (2009). *Qualitative research methods for the social sciences* (7th ed.). Toronto: Allyn & Bacon.
- Britton, J. N. (1993). *Language and learning* (2nd ed.). Portsmouth, NH: Boynton/Cook Publishers.
- Burke, J. (2007). *50 essential lessons: Tools & techniques for teaching english language arts, grades 9-12*. Portsmouth, NH: Firsthand/Heinemann.
- Gallagher, K. (2004). *Deeper reading: Comprehending challenging texts, 4-12*. Portland: ME: Stenhouse Publishers.
- Harvey, S., & Daniels, H. (2009). *Comprehension & collaboration: Inquiry circles in action*. Portsmouth, NH: Heinemann.
- Heller, R. and Greenleaf, C.L. (2007, June). Literacy Instruction in the Content Areas: Getting to the Core of Middle and High School Improvement. Washington, DC: Alliance for Excellent Education.
- Hobbs, R. (2001). Improving reading comprehension by using media literacy activities. *Voices from the Middle*, 8(4), 44-50.
- Kittle, P. (2013). *Book love: Developing depth, stamina, and passion in adolescent readers*. Portsmouth, NH: Heinemann.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education: Revised and expanded from case study research in education*. San Francisco: Jossey-Bass.
- Rosenblatt, L. M. (1995). *Language as exploration*. New York: Modern Language Association of America.

- Saskatchewan Ministry of Education (2009). *English Language Arts 9*. Retrieved from website: https://www.edonline.sk.ca/bbcswebdav/library/curricula/English/English_Language_Arts/English_Language_Arts_9_2008.pdf.
- Saskatchewan Ministry of Education (2009). *Math 9*. Retrieved from website: https://www.edonline.sk.ca/bbcswebdav/library/curricula/English/Mathematics/Mathematics_9_2009.pdf.
- Saskatchewan Ministry of Education (2009). *Science 9*. Retrieved from website: https://www.edonline.sk.ca/bbcswebdav/library/curricula/English/Science/science_9_2009.pdf.
- Schema. 2014. In *Merriam-Webster.com*. Retrieved July 12, 2014, from <http://www.merriam-webster.com/dictionary/schema>
- Schrock, Kathy. "Literacy in the Digital Age." *Kathy Schrock's Guide to Everything*. N.p., 18 Aug. 2011. Web. 2 July 2014. <<http://schrockguide.net/literacy-in-the-digital-age.html>>.
- Smith, M., & Wilhelm, J. D. (2004). "I just like being good at it": The importance of competence in the literate lives of young men. *Journal of Adolescent & Adult Literacy*, 47(6), 454-461.
- Teachit. (2013). *Importance of tone*. Retrieved from http://www.teachit.co.uk/index.php?CurrMenu=11&resource=21791&umid=13984472&__t=1394941988
- Tovani, C. (2014). How we drive students to cheat. *Educational Leadership*, 71(6), 50-53.
- Tovani, C. (2000). *I read it, but I don't get it: Comprehension strategies for adolescent readers*. Portland, ME: Stenhouse Publishers.
- Wilhelm, J. D. (2007). *Engaging readers & writers with inquiry: Promoting deep understandings in language arts and the content areas with guiding questions*. New York: Scholastic.

Appendix A: **Teacher Questionnaire**

Name (**please choose a pseudonym**):

Teaching Experience:

- 1-5 years
- 6-10 years
- 11-20 years
- 20 + years

Teaching Assignment

- Teacher
- Learning Coordinator *
- Learning Leader **

Subject Area: Check all that apply

- | | |
|---|---|
| Math <input type="checkbox"/> | Fine Arts <input type="checkbox"/> |
| Social Studies / History <input type="checkbox"/> | Practical and Applied Arts <input type="checkbox"/> |
| English Language Arts <input type="checkbox"/> | EAL <input type="checkbox"/> |
| Science <input type="checkbox"/> | Resource <input type="checkbox"/> |
| Phys. Ed. <input type="checkbox"/> | French / German / Japanese <input type="checkbox"/> |
| | Phys. Ed. <input type="checkbox"/> |

* Learning Coordinator is a term used by the Saskatoon Public School Division to indicate a person from each department who directs the development of his/her department's learning and goals for the year

** Learning Leader is a term used by the Saskatoon Public School Division referring to an individual who works closely with the Administrative team in making decisions, and oversees much of the in-school Professional Development

Indicate the reading strategies you have used in your classroom:

Check all that apply

Vocabulary Instruction
(Definitions, Word Walls, Word Searches, etc.)

Setting a Purpose for Reading
(Before reading, teacher sets the purpose, draws on student's prior knowledge, K-W-L charts, webs, discussion, etc.)

Reader Response Journals
(Personal responses showing a connection to the text has been made)

Think Alouds
(Teacher reads a passage out loud, verbalizing the reading process for the students)

After Reading Comprehension Questions
(Questions at the end of chapter, article, or other reading to test understanding)

Other? Please list.

Teacher Observations: Check all that apply

In your classroom, do you find that students sometimes have difficulty:

- | | | | |
|-------------------------------|--------------------------|---|--------------------------|
| Summarizing | <input type="checkbox"/> | Listening to Oral Reading | <input type="checkbox"/> |
| Critically responding to text | <input type="checkbox"/> | Talking about what they have read | <input type="checkbox"/> |
| Memorizing facts | <input type="checkbox"/> | Making connections from text to self, world or others | <input type="checkbox"/> |
| Reading word problems | <input type="checkbox"/> | Visualizing the action of a story | <input type="checkbox"/> |
| Understanding text features | <input type="checkbox"/> | Reading Silently | <input type="checkbox"/> |
| Finishing the assignment | <input type="checkbox"/> | Understanding vocabulary | <input type="checkbox"/> |

Other reading strategies you see students struggling with in your subject area:

Please respond to the following:

1. What expectations do you have of your students' reading abilities when they enter your classroom?

2. What types of reading would a student in your class be expected to do (i.e. textbook, novel, word problem, etc.).

3. Do student difficulties in reading appear in your classroom? If so, in what ways do they come to your attention?

4. What would you typically do should a student have difficulty reading the selected texts for your class?

5. Do you consider your previous training in reading instruction supportive to the reading instruction you may be asked to provide in your current classes? What further training might you appreciate? Do you have any specific recommendations for undergraduate education programs in this regard?

6. What other supports, if any, would you appreciate in terms of helping students in your class meet the course reading expectations?

7. What other concerns do you have surrounding the issues of reading at the high school level? Please share any additional information.

Would you be willing to participate in an individual interview?

Yes No

Appendix B: **Teacher Semi-Structured Interview**

Part 1: Reader / Teacher Identity

1. In what ways, if any, do you promote literacy in your subject-area classroom?
2. How might you explain the difference between a reluctant and a struggling reader? Do you see both kinds of readers in your subject-area classroom?
3. When you think of your students, would you say that you have more reluctant or more struggling readers?

Part Two: Content Area Reading

1. What kinds of reading activities might you assign to students in your subject area?
2. What are your expectations of students' reading abilities and levels in your classroom?
3. From your experience, what are some of the main areas of difficulty or frustration in teaching reading in your subject area?
4. What professional development opportunities have you attended that address teaching reading strategies in your subject area? Has this PD been helpful to you? If so, in what way(s)?

Teaching Reading Strategies

1. What might you ask students to do before, during and after they read text in your class?
2. When you give your students something to read in your class, how do you know they are reading it well? What strategies are used?
3. To your knowledge, what are the curricular outcomes in your subject area that require the teaching of reading strategies?
4. What other reading strategies do you regularly model or support in other ways in your classroom?
5. What, if anything, would assist you in feeling more competent in teaching reading strategies? If there are any particular resources or supports you would appreciate, please list.

Appendix C: Setting a Purpose for Reading

Materials:

“The House”

Highlighters (3 different colours)

Instructions:

1. Give each student a copy of “The House”.
2. Read the story out loud to the students and ask them to highlight *anything* they think is important. Students will usually highlight a lot of text.
3. After the students are finished highlighting, ask someone to read out one sentence that they highlighted. Ask them why they highlighted that particular sentence. Why did they think that sentence was important?
4. Have the students switch highlighter colours and this time ask them to highlight any information that they think is important if they were *going to purchase the house*.
5. Once students are finished highlighting, ask for some volunteers to tell you what they highlighted – notice the similarities between the students.
6. Have the students switch highlighter colours again (a third colour) and ask them to read the passage and this time highlight everything they think is important if they were going to *rob the house*.
7. Repeat step 5.
8. Explain the importance of knowing the purpose for reading. The important information changed depending on what they were looking for. At first they highlighted a lot of text for no reason because they didn’t have a purpose for reading. Once they were given that purpose, their reading became more focused and concentrated because they were looking for something.
9. Ask the students if they can tell you the different reasons for reading and point out that they would read differently depending on the purpose for reading (whether the purpose is to read to gather information or to read for fun or entertainment).
 - a. To gather information (efferent)
 - b. For entertainment or fun (aesthetic)

Application:

1. For the next two weeks, focus on giving students a purpose for reading. It’s important that they know why they are reading something; if they are supposed to be gaining knowledge, looking for details, or simply reading for enjoyment. Notice any changes in

the focus of students when they read, the effectiveness of their reading time and also notice if this impacts their comprehension of the text.

The House

(adapted from Tovani, 2000; adapted from Picher & Anderson , 1977)

The two boys ran until they came to the driveway. “See, I told you today was good for skipping school,” said Mark. “Mom is never home on Thursday,” He added. Tall hedges hid the house from the road so the pair strolled across the finely landscaped yard. “I never knew your place was so big,” said Pete. “Yeah, but it’s nicer now than it used to be since Dad had the new stone siding put on and added the fireplace.”

There were front and back doors and a side door that led to the garage, which was empty except for three parked 10-speed bikes. They went in the side door, Mark explaining that it was always open in case his younger sisters got home earlier than their mother.

Pete wanted to see the house so Mark started with the living room. It, like the rest of the downstairs, was newly painted. Mark turned on the stereo, the noise of which worried Pete. “Don’t worry, the nearest house is a quarter mile away,” Mark shouted. Pete felt more comfortable observing that no houses could be seen in any direction beyond the huge yard.

The dining room, with all the china, silver, and cut glass, was no place to play so the boys moved into the kitchen where they made sandwiches. Mark said they wouldn’t go to the basement because it had been damp and musty ever since the new plumbing had been installed.

“This is where my Dad keeps his famous paintings and his coin collection,” Mark said as they peered into the den. Mark bragged that he could get spending money whenever he needed it since he’d discovered that his Dad kept a lot in the desk drawer.

There were three upstairs bedrooms. Mark showed Pete his mother’s closet that was filled with furs and the locked box that held her jewels. His sisters' room was uninteresting except for the color TV that Mark carried to his room. Mark bragged that the bathroom in the hall was his since one had been added to his sisters' room for their use. The big highlight in his room, though, was a leak in the ceiling where the old roof had finally rotted.

Appendix D:

K-W-L Chart

What I Know	What I Want to Know	What I Learned

Beers, G. K. (c2003.). *When kids can't read, what teachers can do: A guide for teachers, 6-12.* Portsmouth, NH: Heinemann

Appendix E: Reading Conferences:

Questions to Monitor a Reading Life / Student’s Attitude	Questions that Teach a Reading Strategy	Questions that Increase Complexity and Challenge
<ul style="list-style-type: none"> ○ What are you reading? How did you choose it? ○ What’s on your to-read-next list? Which authors are your favourites? ○ How much did you read last year? ○ Do you consider yourself a reader? Where and how often do you read at home? 	<ul style="list-style-type: none"> ○ How is the reading going for you? ○ Is this an easy or a hard read for you? How do you know? ○ When a book confuses you, what have you done to get back on track in your understanding? ○ Tell me about these characters – who are they, what do you think of them? ○ What questions are at the heart of this book? What questions might the author be trying to answer through the struggles of the characters? ○ How is this book different from the last book you read? ○ I see you’re almost finished with the book. When you think back over the way a character has changed in this story, can you point to specific moments when something was revealed about this character? 	<ul style="list-style-type: none"> ○ What else have you read by this author? What other books have you read that were as difficult as this one? ○ Which books on your next list are challenging? Have you considered how to push yourself as a reader? ○ Which genres have you read this year? Tell me about a genre that you don’t usually read and let’s think about books that might ease the transition from what you love to what will challenge you to think differently. ○ Tell me about a book you dropped this year. Why did you drop it? ○ How are the books you’ve been reading similar?

Adapted from, Kittle, P. (2013). *Book love: Developing depth, stamina, and passion in adolescent readers*. Portsmouth, NH: Heinemann

Appendix F: Activating Background Knowledge Independently

Begin at the End	Cover the Cover	Finish at the Front
<ul style="list-style-type: none"> ○ Start with the last page of the novel and look at each page until you reach the back cover. ○ Look for glossaries, maps, afterwards and record helpful information given to the reader 	<ul style="list-style-type: none"> ○ Biographical information on the back cover, or on the inside flap ○ Read the back cover to obtain the synopsis of the book, learn about the main characters, and the setting ○ Read any excerpts or reviews given ○ Look at the front cover and infer details about the story by looking at the illustration 	<ul style="list-style-type: none"> ○ Review all of the front material, or the pages that precede the first page of text. ○ Look for the title page and record title, author and publisher ○ Look for any other illustrations on the title page ○ Look for publication information including copyright date. It is important to know what decade a book was written in ○ Look for a dedication or acknowledgement that might contain clues about why the author wrote the book ○ Look for a forward that might provide information to help readers understand the context ○ Table of contents; chapter titles usually give clues about the plot line.

Appendix G: Vocabulary Builders

30-15-10 List

<i>Prefix</i>	<i>Meaning</i>	<i>Example</i>
a, ab, abs	away, from	absent, abstinence, abdicate
ad, af, an	to, toward	adhere, affix, annex
bi	two	bicycle, bicep, bisect
circum	around	circumference, circumvent
com	together, with	combination, commune
de	opposite, from, away	detract, deter, demerit
dis, dif, di	apart, not	disperse, different
epi	upon, on top of	epicenter, epidermis
equi	equal	equality, equitable
ex	out, from, forth	exhale, exit
hyper	over, above	hyperactive, hypersensitive
hypo	under, beneath	hypodermic, hypoglycemic
in	in, into, not	inject, incorrect
inter	between, among	intercede, interject
mal, male	bad, ill	malpractice, malevolent
mis	wrong	mistake, misunderstood
mono	alone, single, one	monotone, monopoly
non	not	nonsense
ob	in front of, against	obstruct, obtrusive
omni	everywhere, all	omnipresent, omniscient
pro	forward	proceed, promote
re	again, back	recall, recede
retro	backward, behind, back	retroactive, retrospective
se	apart	secede, segregate
sub	under	subway, subconscious
super	greater, beyond	supernatural, superstition
trans	across, beyond	transcend, transcontinental

un (pronounced uhn)	not	unhappy, unethical
un, uni	one	unilateral, unity

<i>Root</i>	<i>Meaning</i>	<i>Example</i>
aqua, hydra	water	aquifer, hydrate
bas	low	basement, base, basic
bio	life	biology, biosphere
cred	believe	credible, incredulous
cycl	circle	bicycle, cyclical
dem	people	democracy, demographic
dict	speak	dictionary, dictate
ego, auto	I, self	egotistical, autobiography
fac, fact	make, do	artifact, factory
log	word	dialog, logorrhea
logy	study of	biology, ecology
mort	die, death	mortal, mortician
phil	love	philanthropist, Philadelphia
phobia	fear	agoraphobia, arachnophobia
scrib, script, graph	write	transcript, subscription, autograph
sens, sent	feel	sensitive, sentiment
tact	touch	contact, tactile
therm	heat	thermostat, thermometer
ver	true	verify, verdict
vid, vis	see	visual, video

<i>Suffix</i>	<i>Meaning</i>	<i>Example</i>
-able, -ible	able to (adj.)	usable, navigable
-al	of, or related to (adj.)	autumnal, educational
-er, -or	one who does (n.)	punisher, competitor,

-fy	to make (v.)	dignify, pacify
-ism	the practice of (n.)	rationalism, Catholicism
-ist	one who is preoccupied with (n.)	feminist, environmentalist
-less	without, lacking (adj.)	meaningless, fearless
-ness	the quality of (n.)	aggressiveness, tenderness
-ship	the art or skill of (n.)	sportsmanship, leadership
-tude	the state of (n)	rectitude, gratitude

Copy the Sentence Here	Predict Meaning	Actual Meaning

Adapted from Gallagher, K. *Deeper Reading*, 2004. Stenhouse Publishers, Maine.

Appendix H: The Importance of Tone

Instructions:

1. Students work in pairs
2. Give each student three scenarios
3. Have each student take turns saying the same phrase, "Have you seen my new bag?"
They will change their tone depending on the scenario they are given
4. The partner should try and guess what is being implied by their tone of voice.

Scenarios:

A is very please with his / her new bag.	A is disappointed with the new bag she / he has received as a birthday gift from his / her parents.
A believes that B has taken or hidden his / her new bag.	A suspects B has hidden her / his new bag as a joke and is trying to get B to be honest.
A wants B to be jealous of his / her new bag.	A drink has been spilt on A's bag. A wants B to appreciate his / her annoyance.

Adapted from *The Importance of Tone*, Teachit.uk.co 2013

Appendix I: Drawing Inferences from Images

Opening Activity: Charades

- Divide up into two teams
- Play charades for as many rounds as you would like
- Debrief telling the students that when they play charades, they are drawing inferences, or making a guess based on what they see
- Transition and connect to the activity where they will practice drawing inferences by analyzing images.
- Give them the formula $BK + TC = I$ (background knowledge plus text clues equals inference)

Drawing Inferences from Images

- Put one image up on the projector and give each student an individual copy to use at their desk.
- Spend 2 minutes recording down an inventory of what they see in the image
- Share the list with the larger class
- Spend another 2-3 minutes noticing the artistic quality of the image such as the colour design, layout, camera angle, etc. This can vary in complexity depending on the age of the students
- Have students begin to take notice of the clues given to them in the image that tells them either a) what is happening in the image, b) the larger theme or message c) the deliberate choices of the artist or photographer, etc.
- Students write their inferences on post-it notes and place it near the clue that helped them infer.

Independent Practice:

- Have students go through their reading assignment, textbook, or independent book and use the post-it note strategy by recording inferences and posting them beside the clues given to them from the writer, artist or photographer

Adapted from *Comprehension and Collaboration* (2009, p. 124) by Stephanie Harvey and Harvey Daniels.

Appendix J: K-N-W-S

K What do I KNOW from the information given to me?	N What information do I NOT need or that is extra?	W WHAT does the problem ask me to find?	S What STRATEGY or operation will I use to solve the problem?

Appendix K: Textbook Features

<p>Textbook observations</p> <p>1. Skim through the textbook and record your observations. What do you notice about the textbook?</p>	
<p>Sidebars / Pullout Boxes</p> <p>2. Identify the sidebars on each page. What information appears in the sidebars? Skim the textbook and see if the sidebars are consistent throughout the text.</p>	
<p>Feature: Font, Size, Style</p> <p>3. Find examples of different fonts, sizes and styles. Write down the examples and where they appear (i.e. large bold font for chapter titles, etc.). How does the textbook use bold –faced type?</p>	
<p>Feature: Colour</p> <p>4. Does the textbook use colour to organize or deliver information?</p>	
<p>Feature: Images and Graphics</p> <p>5. Find examples of photos, graphs, or illustrations. What kind of information accompanies these images? How is the image identified? Look for captions or sidebars that explain or discuss the image.</p>	
<p>Organization</p> <p>6. How is the chapter organized? Make an outline of how the chapter is set up.</p>	

Adapted from Burke, J. (2007). *50 essential lessons : Tools & techniques for teaching English language arts, grades 9-12*. Portsmouth, NH: Firsthand/Heinemann.