How the Accelerated Reading Program Supports the Comprehension Development of Struggling Readers

Emily A. McLean

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How the Accelerated Reading Program Supports the Comprehension Development of Struggling Readers

by

Emily McLean

A thesis submitted to the Department of Education and Human Development of the State University of New York College at Brockport in partial fulfillment of the requirements for the degree of Master of Science Education.

December 11, 2012
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A student who is a struggling reader is identified as one who performs at least two grade levels below their current academic level. This problem is more common than many people may think. Students who struggle with reading can have a variety of difficulties in this area. They may struggle with fluency, phonics, phoneme awareness, reading comprehension and/or vocabulary. Since every student is unique, a strategy that is effective with one student may not work with another who has a similar problem.

One of the biggest struggles readers seem to encounter is with comprehension. If a student is reading, but not comprehending, then they are not truly reading. The point of reading is to make meaning and if this is being lost then it becomes pointless. Serafini & Youngs state that;

Comprehending is an action verb and connotes a process, whereas comprehension is a noun, suggesting a thing or commodity. Too often our instruction, assessments, and classroom discussions seem to favor the notion of comprehension as commodity, focusing on carrying away or measuring some amount of knowledge or attribute from a reading event. Let’s focus instead on helping our students with the process of making sense, not simply the residuals of reading. (p. 1)
This statement couldn’t be any further from the truth. Many educators focus on comprehension as just a thing that students are or are not doing. We need to change our thinking so that it becomes an act of comprehending.

Students who struggle with reading are a critical issue at the school where I teach. I am a fifth grade teacher at Faith Academy which is in Bates, New York. Faith Academy is a private school for students with learning disabilities. All of our students are learning at least two years below grade level, in one or more subject areas. Reading is an area of difficulty and a severe deficit for a majority of the school's population. Because of this trend, reading comprehension is an area in which I would like to expand my knowledge to better suit my students’ needs.

The Accelerated Reading Program is a program that our school utilizes for the students. This program appeals to schools because they declare it to be cost effective and will make every dollar count. It claims to be the most successful reading program of all time. On the Accelerated Reading Website, it states that the;

Highly popular and successful, Accelerated Reader (AR) creates enthusiastic readers – while enhancing the teaching experience. Utilizing the ATOS readability formula, the perfect tool to support the text complexity demands of the Common Core, AR helps you: personalize and guide independent reading, develop lifelong readers and learners, tap into unlimited quizzes and enjoy online support, increase parental support with web-based, school-to-home communications and equip your students to meet the rigors of state standards and CCSS. (Renaissance, 2012)
These claims are very strong to say that this program is able to develop life-long readers and learners. I will be very interested in seeing if this program is truly able to motivate the focal students in my reading classroom.

I teach a small reading group of six students. Those students range from second to fifth grade and are reading at a first or second grade reading level. It is a huge concern to me, and I know that I need to do as much as I can to help them make gains in this area.

I believe the Accelerated Reading program has some limitation. I feel that the program restricts student’s choice for selecting books. Book choice is a huge factor that contributes to motivation. If they are being forced to read from preselected, leveled text, then they may be even more reluctant to read! If a student is a struggling reader, they need to be motivated to make progress. I also believe that the Accelerated Reading program limits student’s comprehension to surface level questioning. Unless prompted by a teacher, I do not feel the program challenges the student to think beyond the text. This is a problem because the program claims to assist students in the area of reading comprehension and thinking beyond the text is key for growth in this area.

Purpose of Study

In this study I explored how the Accelerated Reading Program supports the comprehension of struggling readers. To be an effective teacher, I need to make sure I am utilizing the best practice strategies for my students. To answer this, I have developed three sub-questions to further my understanding. First, I looked at how leveled text, support the comprehension of struggling readers.
Next, I examined the ways in which the assessment tool of the Accelerated Reading Program motivates struggling readers. Finally, I studied the ways in which the use of this reading program supports or hinders higher level thinking in struggling readers.

Rationale

In every school you can find students who are identified as struggling readers. This is a widespread problem that I believe needs immediate attention so that students are not passed on from grade to grade, not knowing or learning how to read. Many times a struggling reader can easily become lost in the busy classroom environment and get overlooked. These students have developed their own strategies so they do not stand out. Many times they look like they know what they are doing and they can fake reading very easily. It is only until called upon or placed in a testing environment that these difficulties may stand out.

Elementary grades are the ones that are most crucial to children learning to read because their minds are still developing with reading techniques and strategies. Once, they become older, it is much more difficult to help them break through the habits they have already developed that are not successfully working for them. Many factors may influence a child’s reading ability. Some factors include; a diagnosed disorder or disability, motivation and time spent outside of school immersed in literacy activities.

When a person goes to college and decides to become an Elementary Teacher, they think that are going to be given all the strategies they need to help every student. Unfortunately this is not the case. Serafini and Youngs state that;
One of the biggest challenges we see in reading comprehension instruction is helping teachers, novice readers, get past decoding, oral performance, and literal recall in their discussions and instructional experiences. It’s not that we want readers to stop paying attention to the actual written text, nor do we want them to be unable to read a text fluently and with intonation. But we have to be aware that when we constantly focus our instructional lens on decoding a text accurately, rather than focusing on thinking and interpretation, we may be inadvertently sending the wrong message. (p. 3, 4)

This excerpt makes me think back to the reading strategies which I have been taught to use in my school career. No one strategy will work for each student and not one student is the same as the next. Teachers must have a whole repertoire of strategies and programs at their disposal so they can fit the needs of all learners.

Many school districts quickly “buy in” to programs that are put on the market, that claim to be the best. I feel it is appropriate to examine the Accelerate Reading program to see how it truly supports the comprehension of struggling readings. By doing this, other teachers will know the strengths and weaknesses of the program and if it truly helps struggling readers.

The research of this program is going to contribute to the field of literacy because it will allow an educator to really see what it does and how students respond to it. So many times, educators want to trust that a program will help our students and may even be an “easy fix”. I am going to look critically into the
Accelerated Reading Program so that I will know if this is a best practice strategy or not.

Organization of thesis

Throughout my writing, I am going to explore many different aspects of how the Accelerated Reading program supports the comprehension development of struggling readers. Chapter one is the introduction. This is where I will define the problems and explain my justification of this topic. Chapter two is the theoretical framework. In this chapter I will look at the research already out in the field and examine it to see the implications it may have on my study. Chapter three is the research design. This is where I will discuss data collection methods and analytical frameworks. Chapter four will be about the findings to my research questions. Chapter five, the last chapter, will delve into the implications this work has for my students.

Summary

Overall, struggling readers need the most assistance in reading education. It is a common problem seen in many school districts nation wide. The Accelerated Reading program claims to be the most successful reading program of all time. This statement is extremely bold, because there are many other reading programs that are available to educators. It is important that educators do not simply believe a claim made by a company; they should look closely at it and
examine it. Since this claim was made by the Accelerated Reading Program then I am hoping that it has very positive implications for students who are struggling readers.
Chapter Two

Review of Literature

Introduction

In this section I will provide conceptual framework based upon relevant literature surrounding the topic of how the Accelerated Reading Program supports the comprehension development of struggling readers. In section two I will discuss different reading programs such as; Accelerated Reader, Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and the Developmental Reading Assessment (DRA). Section three will contain information regarding leveled text. Many schools use the idea of leveling text so I will discuss the benefits and challenges of utilizing them. In section four I will examine types of reading instruction for developing higher level thinking, more specifically; strategies, issues of struggling readers and emergent readers. Finally, a summary will be provided to highlight specific findings about current literature.

Reading program

*Accelerated Reading Program*

The Accelerated Reading Program is a computer based program which places students into categories with leveled text so that they can select a text, read it and then take a comprehension quiz on it. In Souto-Manning (2010) it is described differently. It is stated that “The Accelerated Reading Program is a computerized reading management program that portrays misread and misused Vygotskian terms and concepts such as scaffolding and Zone of Proximal
Development – without taking into account the sociopolitical dimensions of children’s reading” (p. 105). This is the view of a second grade teacher whose school has embraced the program and has been forced to conform to its limitations. In her articles she discusses how it restricts student’s choice completely. This makes it very difficult to use with students.

The Accelerated Reading Program is also supposed to reward students by using extrinsic motivation for receiving an 80% or higher which in turn, neglects those who do not. This would quickly highlight those students who struggle with comprehension and then not do anything to help them. Teachers are discouraged from assisting students with reading their leveled text because the book is supposed to be at a level that is just right for them. Unfortunately, I have found that many times those just right books contain too many difficult words and students end up becoming discouraged.

**Dynamic Indicators of Basic Early Literacy Skills (DIBELS)**

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) is a program that has been approved for federal funds which are granted to states through Reading First and must be spent only on programs that are proven with scientifically based reading research. DIBELS is supposed to directly address phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Like many reading programs there are some individuals who have concerns about DIBELS. Shelton, Altwerger and Jordan (2009) state:

Many researchers and classroom teachers alike have raised concerns regarding the use of DIBELS to assess children’s reading ability.
Central to these concerns is the questionable validity of an instrument that relies solely on a one-minute measure of reading accuracy and speed as the means for identifying a reader’s level of reading “risk”.

(p. 138)

This shows the opinion of many researchers and classroom teachers. Though it is a widely known and accepted program, many have some level of apprehension regarding it.

As an educator, you are taught that assessments are not always a true measure of a student’s ability. Many students may suffer from test anxiety which could greatly impact their performance during an assessment. Taking a one-minute assessment for accuracy and speed seems to put a great deal of pressure on an individual and can not be entirely accurate. Especially for a student who is already a struggling reader and lacks the confidence like one who has a higher reading level.

*Developmental Reading Assessment (DRA)*

The Developmental Reading Assessment (DRA) is a set of individually administered criterion-referenced reading assessments for students in kindergarten through Grade 8. The DRA is a research-based assessment used to determine the child’s independent reading level. It allows teachers to systematically observe, record, and evaluate change in student reading performance and to plan for and teach what each student needs to learn next. The DRA helps teachers pinpoint students’ strengths and reading abilities in a one-on-one conference.
Leveled text

Explanation

The system of leveling text is something that many classroom teachers utilize. It is often done to correlate with a reading program that a school may use. Leveling text means arranging books by readability so that students can choose books that are “just right” for them and become successful at decoding and comprehending. The difficulty of a text can be determined in many different ways. Some reading programs use readability formulas that take into consideration the number of words a text may have. Others look closely at the types of words used in the book, the context and the number of sight words it may contain.

Benefits

Using a leveled text approach in your literacy instruction can benefit the students. It can build students confidence by being able to successfully decode and comprehend a book at their level. Brabham and Villaume (2002) state,

For effective reading instruction to occur, struggling readers must have opportunities to read comfortable texts rather than experience constant frustration with texts that are too difficult (p. 438).

If a teacher utilizes having a leveled text library in their classroom, then students can comfortably choose books at their level. Brabham and Villaume continue by stating,

Exploring leveled text and guided reading has inspired many teachers to develop or adopt holistic performance assessments that
use leveled books as benchmarks of reading progress (p. 438).

This gives a valid assessment of the students reading abilities and allows teachers to adjust their instruction accordingly.

Challenges

Utilizing leveled text in your classroom can have its challenges. Sometimes students can be resistant to reading within a certain level. If a student is a struggling reader in a classroom then they may think they are being made to read “baby books” and resist reading all together. Students may also be interested in books outside of their level. If this is the case, they can sometimes be discouraged to read certain books because they are too difficult. This can also cause students to develop an aversion towards reading.

Sometimes leveling text can lead to a lack of instruction for the teacher. Brabham and Villaueme (2002) stated that,

An obsession with using appropriate text levels is sometimes accompanied by insufficient attention to instruction that fosters active construction of meaning, and self regulation (p. 438).

They continued on to say that,

Assessment agendas that focus primarily on progress marked by moving students to higher text levels can distract teachers from carefully monitoring and addressing the development of word-solving and comprehension strategies (p. 438).

This shows that educators need to be very careful when using leveled text. They can not sit back and assume that because the student is reading at an appropriate
level they do not need to have to provide direct and explicit instruction. This is especially important to remember for struggling readers.

Cunningham, Spadorchia, Erickson, Koppenhaver, Sturm and Yoder (2005) conducted a study, in which they said;

Examine books leveled for use in Reading Recovery in order to judge how supportive such texts are for early reading instruction emphasizing word recognition or decoding instead of, or in addition to, the emphasis in Reading Recovery on the three main cueing systems (p. 416).

They also discovered that often the use of these specific books,

Provide no support for instruction in recognizing words by their orthography or decoding them by their phonology. We recommend that advocates of word recognition or decoding instruction either seek other kinds of materials or select and re-level a subset of Reading Recovery books that will provide increasing word-level demands as the assigned levels of the books increase (p. 425).

This continues to support that teachers can not rely solely on a leveled text library to provide sufficient reading instruction for struggling readers.

Reading instruction for developing higher level thinking

Strategy

There are many strategies that can be used to help students develop higher level thinking. One important aspect of teaching high level thinking is the comprehension of text by the reader. If comprehension does not happen then only
surface level thinking will take place. Fisher (2008) stated that comprehension is broken into three levels. They are,

Literal, or surface understanding, leading to the formation of a proposition, an interpretive level where inferences are drawn, and an evaluative level involving a personal response from the reader, positively or negatively, to the text itself (p. 20).

In her article she looked closely at how the implementation of teaching Guided Reading would affect student’s comprehension. In comparison to this definition, Kinnunen and Vauras (1995) make the claim that

Comprehension is a multilevel process of meaning construction: readers or listeners actively construct meaning from the auditory or visual material offered by speech or text (p. 145).

I believe that the authors of both articles would agree on what comprehension is because Kinnunen and Vauras state it was multilevel process while Fisher broke her definition into the levels. Kinnunen and Vauras (1995), used comprehension as a self monitoring tool to help readers. Both articles were very clear on what they believed comprehension was even though both had different strategies used to build comprehensions skills.

**Issues for struggling readers**

Students who struggle with reading need direct instruction to help them become better readers. The reading process is a progression in which everyone goes through when learning how to read. Compton-Lilly (2009) declares that the reading process is, “the role that letters and sounds play in reading and the
strategic actions (i.e., monitoring, rereading, word solving, self-correcting, actively comprehending)” (p. 88). In comparison to this, Rupley, Blair and Nichols (2009) say that it includes, “phonemic awareness, phonics, fluency, vocabulary, and comprehension” (pp. 125-126). It is puzzling to me that two articles, which were both published in 2009 from two well known journals, would have contrasting definitions of what the reading process entails. If you break Compton-Lilly’s definition down she does agree with phonemic awareness because she states “the role that letters and sounds play.” However, Compton-Lilly refers to strategic action, meaning what children do while they read and Rupley, Blair and Nichols talk about the key components of what literacy is. I was taught that the reading process is the steps that you go through while you are reading so I would have to side with Compton-Lilly and her definition.

The two articles that introduce the reading process are very different in what they have researched. Compton-Lilly looked at new literacy studies. She says this is, “how literacy practices are linked to people’s lives, identities, and social affiliations” (p. 88). An example of this would be having students read about things they are interested in or identities they relate to. Rupley, Blair and Nichols investigate how the role of direct and explicit teaching would affect struggling readers. I believe that their strategy would benefit struggling readers more because if a struggling reader knew what they were doing wrong, then they would have already fixed the problem.
Curriculum supporting emergent readers

The essential concept of multiliteracies is design (New London Group, 1995). This draws attention to how learners are both inheritors of patterns and conventions for making meaning, and active designers of new meanings (Mills, 2006). Meta-language begins with six elements required to make meaning. Linguistic, visual, audio, gestural, spatial, and multimodal patterns can be worked into existing foundations of teaching to enhance students understanding of school-based literacy’s. By drawing on prior knowledge of a student’s cultural experiences, it can allow students to explore unfamiliar situations. The use of culturally relevant materials, including multicultural literature and content-area texts with multicultural themes and applications are another way to allow students to view themselves as valued members of the learning community (Algozzine, 2008).

Multiliteracies are an important aspect in classrooms today. Mills (2009) states that a multiliteracy classroom includes, “multimodal textual practices – combining linguistic, visual, audio, gestural and spatial modes – and literacy’s that were culturally inclusive” (p. 104). These practices help all students in the areas of literacy. Culturally and Linguistically Diverse (CLD) students especially benefit from a multiliteracy classroom because customs and traditions from their cultures should be included into the class work. This helps to make an authentic connection to what the students are learning about. A multiliteracy classroom provides students with a way to feel more comfortable. Multiliteracies are a way to connect to your students and make learning come to life and have meaning.
Struggling readers benefit because it is a multimodal approach that involves more than just listening, so that they are actively involved in the learning process.

Summary

The above is the conceptual framework of relevant literature surrounding the topic of how the Accelerated Reading Program supports the comprehension development of struggling readers. Section two examined the different reading programs such as; Accelerated Reader, Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and the Developmental Reading Assessment (DRA). I also examined how leveled text has both benefits and challenges for students and teacher use. Reading instruction for developing higher level thinking, more specifically; strategies, issues of struggling readers and emergent readers can directly impact student progress, as shown above. In chapter three I will provide the method I will use and types of data collection.
Chapter Three

Methods and Procedures

Introduction

This chapter introduces the context of the research study and the methods. I conducted the study in a reading class containing students from grades two through five. I looked at how the Accelerated Reading program supports the comprehension of struggling readers. Along with this, I closely examined how the program levels the text, how it supports or hinders high level thinking and how the students are motivated through the programs assessment tools. In the following section, I introduce the contextual information, and data collection methods and procedures.

Context

School

The school where I conducted this study is located in the town of Bates, New York; a small to medium sized community consisting of mainly middle class families. The population for Bates is 38,231 people with an average age of 39 years old. The average household size is 2.6 people with a median income of $54,319. The percent of adults age 25 and older whom hold college degrees is 39% (www.privateschoolreview.com).

Faith Academy is a private, non-denominational, not for profit school designed for student with special learning needs who consistently experience frustration in the traditional classroom setting. Students can enter Faith Academy as early as third grade and they can continue on through twelfth grade. The school
is committed to the belief that when students are given enough time in a supportive, multi-sensory learning environment, they can become successful learners. Faith Academy uses the Mastery in Learning Program to teach New York State curriculum, as well as organizational skills and social skills, in a non-traditional way. This learning program has been used successfully since 1977 to help students with Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), speech/language difficulties and Central Auditory Processing problems to become lifelong learners. Most students who attend Faith Academy are functioning at least two years below grade level in two or more subjects. Most students have aptitude test scores that are too high for “special education” programs, but too low to succeed in regular classrooms (generally, Full Scale IQ is between 70 and 90). The students normally struggle with study and organizational skills which links to very low self-esteem and poor self-image as a learner (www.hopehall.com), as seen in Table 1 below.

Table 3.1: Referent Context Information about Faith Academy

<table>
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<tr>
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<th>Faith Academy</th>
<th>Average in NYS Private Schools</th>
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<tbody>
<tr>
<td>% of non caucasian students</td>
<td>53%</td>
<td>21%</td>
</tr>
<tr>
<td>Teacher Student Ratio</td>
<td>1:8</td>
<td>1:16</td>
</tr>
<tr>
<td># of Hours/ Days in School</td>
<td>6 hrs/ 180 days</td>
<td>6 hrs/180 days</td>
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**Classroom**

The classroom is set up in a structured floor plan. There is a defined library area where the students can read independently by utilizing the leveled
texts, listen to stories being read to the whole class, and use audio books on tape to follow along with select texts. The room is print rich with models that support review and reinforcement. There is one teacher to six students in the reading class and one teacher, a teaching assistant and thirteen students in English Language Arts.

The literacy instruction schedule allows students to receive multiple literacy opportunities each day. Within an 80 minute time period, students receive 20 minutes of word work, 20 minutes of 3:1 guided and shared reading as well as use of the Insights reading comprehension program and 40 minutes of English Language Arts where they use manipulative and hands on lesson plans to enhance understanding in writing. The school’s library has a large selection of Accelerated Reading books which the students utilize and are able to take comprehension tests weekly. Not only does this schedule support literacy development, but literacy is reinforced throughout the entire school day by using cross curricular lesson plans.

Participants

The classroom teacher, Emily McLean, is certified in Childhood Education and Students with disabilities, grades 1-6. I am in the process of obtaining a Master’s degree in Literacy. I have been teaching at Faith Academy for five years. I taught one year of seventh, eighth and ninth grade Science and four years in a fifth grade classroom teaching Science, English Language Arts, 4th grade Science, 1st grade Math and 2nd grade Reading.
There were two focal students participating in this study. Both students are struggling readers. They find reading very difficult and often are resistant to read, even if it is at an independent level for them.

The first focal student, Ian, is a fifth grade student, reading independently at a mid-first grade level. He does not have an Individualized Education Plan, but is diagnosed with Attention Deficit Disorder and is currently taking medication for that. Ian loves school and has many friends. He struggles in English Language Arts because of his spelling and weak vocabulary. He always likes to please adults, so he is reluctant to show his struggles with reading. Ian continues to struggle with sight words, even though he has had many years of instruction and practice in that area.

The second focal student, Gavin, is a third grade student, reading independently at a mid-first grade level as well. Gavin does not have and Individualized Education Plan. He exhibits behaviors showing he does not enjoy reading. While reading he often skips known words as he is concentrating on a later unknown word. He is extremely reluctant to read on his own. Even when it is a book of choice, he will pretend to read during independent reading time.

Data Collection Instruments

Throughout this study, I used several different instruments or methods of data collection. I utilized observations, interviews, surveys, work samples and field notes. I used these at several different points throughout the study.

Observations with the use of field notes (Appendix A) were extremely beneficial to my study. The purpose of this form of data collection was to watch
how the students engage with the Accelerated Reading program and its process. I was able to gage student motivation through this because if students are excited and ready for the test, then their motivation would be high. If students were reluctant to choose a leveled book and/or read the book they selected, that reflects their low motivation.

Surveys were conducted as part of the study. Students were surveyed using the Elementary Reading Attitude Survey (Appendix B). I also interviewed teachers who interact with the program in their classrooms, to obtain their thoughts and opinions on the programs assessment tools and levels of questioning (Appendix C).

Work samples were collected from the students who use the program. After they had taken an assessment, I printed out the assessment report that tells their score and the information about the book and the student. This helps me to see if the students were making progress within their reading level and see if the leveling of text supports their comprehension of the book.
Procedures

Below I have included a table that outlines and summarizes the procedure and scheduling for my research.

Table 3.2: Outline of data collection

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Description</th>
</tr>
</thead>
</table>
| Week 1     | - Conduct survey of student motivation towards reading  
- Hand out survey for educators.  
- Field note #1 (students engaging with leveled text to select a book)  
- Field note #2 (students behavior and willingness to read selected text) |
| Week 2     | - Collect educator survey  
- Field note #3 (students behavior and attitude during assessment portion of program)  
- Work samples collected of students results from assessment  
- Field note #4 (students engaging with leveled text to select a new book of the same level) |
| Week 3     | - Field note #5 (students behavior and willingness to read selected text)  
- Work samples collected to students results from the assessment  
- Work samples collected of assessment with students answers  
- Field note #7 (students motivation to engage in assessment) |
| Week 4     | - Field note #8 (students behavior and willingness to read selected text)  
- Work samples collected of students results from the assessment  
- Work samples collected of assessment with students answers  
- Field note #9 (students motivation to engage in assessment) |

During the first week of the study I conducted surveys of both the participants and educators at my school who interact with the program. I also started taking my initial field notes on the students selecting their text from their...
assigned levels and how they interacted with that text once it has been selected.

In the second week of the study I began to start taking field notes on the students when they were engaging in the assessment portion of the Accelerated Reading program. This helped me to answer the questions of how the assessment tools of the program motivate struggling readers. I also collected work samples of their results reports. This gave me information on the exact reading level of the text they selected and how they performed on the assessment. I also gathered field notes on the selection process which the students went through when selecting a new text for that week.

In the third week of the study, I continued to take field notes on the student’s willingness to read the selected text and the assessment process again. I also collected more work samples on the student’s assessment results to compare them to the following week. I obtained a copy of the assessment to analyze the types of questioning used to help me answer the question of whether or not the reading program supports/hinders higher level thinking in struggling readers.

In the fourth week of the study I continued taking field notes on the students as they engaged with the program at its various parts. I also collected work samples of the assessment results and the actual assessment itself. At the end of my study the students completed the survey again to see how their motivation and attitude towards reading have progressed now that they had interacted with it and the process for several weeks.
Data Analysis

This study was primarily an inquiry-based, qualitative study. Data was collected and observations were made from the study to be noted. The study examined data that was collected through various methods. The following domains of data collection sets were used in this study: anecdotal and field notes, observations, interviews and work samples. Field notes were used to examine how the child interacts with the Accelerated Reading Program and its components.

Through triangulation across these domains, the study analyzed the different sets of data. The study used the following analytical frameworks to code patterns: student interaction with the text, degree of participation in the program, student motivation to complete assessment, and comprehension and higher level thinking based on the assessment questions.

Summary

In this four week, qualitative study, I looked at how the Accelerated Reading program supported the comprehension of struggling readers. I chose two focal students who were both struggling readers. Both of these students, Ian and Gavin, read at least two years below grade level. I collected data by taking anecdotal and field notes, observations, interviews and work samples. Through triangulation, I looked for patterns and coded the data so that I could answer my research questions.
Chapter Four
Interpretation of Data

Introduction

Given how immersed in to technology our society is, people could assume that a computer based reading comprehension program would benefit this current generation of students. Technology can often be a huge motivator for students because it is something in which they have grown up with since they were young. Students are often very familiar with computers and use them with ease.

Based on this assumption and the claims of the program, I performed a four-week long, qualitative study on how the Accelerated Reading Program, supports the comprehension development of struggling readers. I observed two struggling readers interacting with the components of the program and had them complete a reading attitude survey to judge their ideas and motivation regarding reading. I also surveyed some of my colleagues who interact with the program to get their overall opinion and observations about its effectiveness. My overall objective was to decide if or how this program supports the comprehension development of struggling readers.

In this study, I used three separate research questions to guide my investigation. First, I looked at how leveled text, support the comprehension of struggling readers. Second, I examined the ways in which the assessment tool of the Accelerated Reading Program motivated struggling readers. Last, I studied the ways in which the use of this reading program supports or hinders higher level thinking in struggling readers.
Research Question 1: How does leveled text, support the comprehension of struggling readers?

I have discovered that there are both benefits and drawbacks to leveling text. The benefits include that students are able to feel self-assured that they are reading a book successfully. This helps increase their confidence which can have a positive effect towards their motivation to read. The drawbacks I discovered are that if they are reading at a lower level than their peers it is very apparent and students often perceive the books they have to choose from as “baby books.” Often students will find high interest books that are leveled high or lower than what they are placed at. Not being able to choose these high interest books will decrease student motivation and willingness to read.

Ian’s interactions with leveled text

When observing Ian, I noticed he was excited to read the book at his level, but cautious because he was still lacking the self-confidence that he knew the words. He would always ask to read it to an adult. While reading, he would look for the self-assurance that he was doing well. When reading independently, he would whisper read so that he could hear what he was reading. This helped him make self-corrections for making meaning of the text. These are all good strategies that he has begun to use. See illustration 4.1 below for the field note taken on Ian during library time.
4.1: Observational Note on Ian during library time

This field note shows how Ian would read with an adult once he selected a book. He liked the confirmation from the adult while reading and the immediate feedback that he was doing well. As soon as Ian entered the library he knew exactly what he was looking for. He has experience previous success reading a certain type of book so he wanted to find another book in this series.

Leveling texts takes away from student’s choice of book. Many times there are a limited number of texts to choose from, within each level. Ian has
exhausted many of the books that are of interest to him at his color level. This causes him frustration when selecting and book and he often has to “settle” for a book that may not be his first choice. This will often affect how often he will read the book throughout the week and how hard he tried when decoding words within the text. Ian feeling successful at reading is a huge support to maintain his motivation and willingness to read.

Gavin’s interactions with leveled text

One contributing factor of using leveled text is when students are aware that they are reading at a specific level. If this level is below low other same grade level peers are at then it can cause complications. This can lead to problems with the student’s confidence, motivation and attitude towards reading. This is what happened with the second focal student, Gavin. He was very in tune with what his peer’s perceptions were and did not like reading “baby books”. Normally, with students like this, even if a level one book is all they can accomplish independently, they do not want to be seen reading it. If students are not interested in the topic of the book, then they are not going to read it. This is especially true for struggling readers because reading is already difficult for them, so they often don’t want to even try if the book isn’t interesting.

If a student prefers reading non-fiction books and there are none appropriate at their level to choose from, this can be a major problem to encourage them to read. In this study, Gavin was extremely concerned with what “color level” he was reading at. Every week at the library he would ask if he could move up to the next color because he saw his peers reading higher level books. This is a
problem that leads to Gavin having issues with motivation. He would need lots of encouragement and prompting to select a book at his level and would usually wait until the last couple minutes of library time to settle on a book for the week. See table 4.2 below, for the observational notes of Gavin during library time.

4.2: Observational Note on Gavin during library time
The above observation note on Gavin during library time shows his reluctance to choose a book with in his assigned color level. Even though some of his peers were reading at colors lower than his, he would focus on the ones who read at high levels. He would constantly ask when he would be able to move up a color and if he could choose a book at a different level. Having to choose from leveled text was a big inhibitor for Gavin’s successfulness at reading. The level would consume his thoughts so he would not be able to enjoy the text no matter what it was.

Colleague feedback

It is important to get the opinion of teaching professionals who interact with the Accelerated Reading program on a daily basis. I surveyed the reading teachers in my school to see what their opinions were and what they thought about the program. There are four reading teachers, besides myself, in the school who completed the survey. (See Appendix C for the survey questions)

One of the questions asked my colleagues if they let their students read books below/above their reading level (as determined by the Accelerated Reading test results). Three out of the four teachers said yes they do allow their students to choose other books. Two clarified that they only allowed this during independent or “free” reading times. Another said she did because she finds that the initial Accelerated Reading test in which the students are given is not always accurate. Therefore she allows students to choose books below their assigned level so they can be successful without experiencing frustration. See the tables below for the teacher’s responses to the survey question.
The above answers to question 11 show that the teachers allow students to choose book outside of the assigned level because it can often be restricting. High interest texts are a great way to build student motivation and enthusiasm for
reading. If a teacher never lets students select books outside of their “color level” then they would be neglecting student interest and therefore, not helping students with their reading.

Another survey question asked for the teachers overall opinion of the Accelerated Reading Program. See the illustrations below for the teachers’ response to this question.

4.6: Teacher response to question #5

5. What is your overall opinion of the Accelerated Reader program?
I do not think it is improving the ability of the students to read, but it is a tool for comprehension.

4.7: Teacher response to question #5

5. What is your overall opinion of the Accelerated Reader program?
I feel that the accelerated reader program is a satisfactory supplement to a language rich curriculum.

These teachers see benefits to the program and how the text is leveled for the students’ ability but realizes that it can not be the sole program for reading instruction because of its other limitations. In illustration 4.6 the teacher reported that it is not improving the students’ ability to read, that it is only a tool for measuring comprehension. Both teachers seem to share this same opinion.
Interpretation of Data

Based on the research question, how does leveled text, support the comprehension of struggling readers, I would have to conclude that the support is limited. The above research points out the typical drawbacks to leveling text. Not only did having students choose from a specific level, based on their reading ability, lead to lack of motivation but it also decreased students self-confidence around their peers. I know this because Gavin would often hide his book so his friends could not see it, even though the students in the reading group were all close to the same reading level.

Having text leveled does help students choose a book that is just right for them but it often neglects variety of genres and topics. This directly correlates to a students’ motivation to read. If they do not find a certain topic interesting, they do not want to read it, just like adults. Overall, leveling text can be helpful if utilized by the teacher positively and students are still allowed choice for high interest books.
Research Question 2: How do the assessment tools of the Accelerated Reading Program motivate struggling readers?

Often times, computer-based programs can act as a motivator for students because they enjoy using the technology. The Accelerated Reading program tried to use this key factor as an incentive to help their program succeed. It can also be a huge benefit for educators because having pre-made assessments based upon books your students are reading, readily available, takes a lot of work away from the teacher. The program generates reports based on each student’s performance and gives teachers data to use to help guide instruction and book selection. If students struggle with reading the questions independently, there is an option on the program to have the questions read aloud. However, this is only for the lower level books.

Interpretations of students taking the assessments

The students were excited and nervous to take the weekly assessments based on their book selection. I added extra motivation by telling them that if they received above an 80% on their assessment, they earned a sticker on the Accelerated Reading chart I have hanging in my classroom. Such a simple thing, as a sticker, was a huge motivation for the focal students. They were allowed to place the sticker next to their name if they received an 80% or higher which helped them feel confident and proud of what they had accomplished. Even though this was a successful tool, it was something in which I built in to the program. The computer-based assessment itself did not seem to be the motivator.
See illustration 4.8 below for an observational note on Gavin interacting with the computer based assessment.

4.8: Observational note on Gavin taking an assessment

The observational note above shows Gavin’s nervousness surrounding the results of the assessment. He was completely focused on being able to move to reading higher level books that the assessment being on a computer did not seem to motivate him at all. However, he knows that in order to move up a color level, he must earn five 100’s, in a row, at his current level. So, in that aspect, the assessment results are a motivator for him.
Ian always interacted to the assessments in a positive away. He always showed enthusiasm and was normally willing to take the quiz first because he felt prepared and anxious to see how he would do. Below, in illustration 4.9, it shows the observational note on Ian interacting with the Accelerated Reading assessment.

4.9: Observational note on Ian taking an assessment

<table>
<thead>
<tr>
<th>Observations</th>
<th>Interpretations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask's to be the first to take his quiz.</td>
<td>Excited to take quiz. (anxious for results)</td>
</tr>
<tr>
<td>Sits right down and independantly logs into account.</td>
<td>Knows his comprehension is better when he can hear and see the questions.</td>
</tr>
<tr>
<td>Raises his hand to have the questions read to him. (Does not even attempt reading them first)</td>
<td>Assessment results motivate him because he was so excited at how well he did.</td>
</tr>
<tr>
<td>Adult reads as he selects answers.</td>
<td></td>
</tr>
<tr>
<td>Earns a 100%, very excited, runs right over to tell me.</td>
<td></td>
</tr>
</tbody>
</table>

The above observational note on Ian shows his excitement to interact with the Accelerated Reading assessment. He likes the confirmation that he is doing
well and when he earns a 100% on an assessment, which is enough motivation for him to continue working hard towards improving his reading.

Colleague feedback on motivation

Throughout the day to day interactions with the Accelerated Reading Program, the reading teachers are able to gauge student motivation. On the reading survey, I asked my colleagues how strongly they agree or disagree that the Accelerated Reading program is positively influencing student desire to read. Three teachers disagreed, stating it was not positively influencing their students, while one agreed that it was. This directly relates to student motivation and using the program itself. If the program lacks the motivational piece for the students, then student’s who are excited about it, are only excited because they already have the intrinsic motivation for success. It would be great if all students have this, but many do not and need some outside factor to help encourage them to succeed and do well.

Another question on the reading survey that I gave my colleagues asked how they use the assessment results and if this motivates their students. Their responses are in the illustrations below.
4.10: Reading teacher response to survey questions 12-14

12. How do you administer the AR program for point values and goals? Do you take a grade? What kinds of incentives/goals are present?
I do not utilize point values other than acknowledging students whose participation is exemplary.

13. Does this encourage students’ attitudes toward reading?
Yes or No

14. On a scale of 1 to 4, how would you rate students’ attitudes toward the program?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(majorly) strongly dislike it</td>
</tr>
<tr>
<td>2</td>
<td>(dislike it)</td>
</tr>
<tr>
<td>3</td>
<td>(like it)</td>
</tr>
<tr>
<td>4</td>
<td>(love it)</td>
</tr>
</tbody>
</table>

4.11: Reading teacher response to survey questions 12-14

12. How do you administer the AR program for point values and goals? Do you take a grade? What kinds of incentives/goals are present?
No grade given. The students receive positive plus points if they pass quiz with an 80% or higher. The points can be used to purchase school prizes.

13. Does this encourage students’ attitudes toward reading?
Yes or No

14. On a scale of 1 to 4, how would you rate students’ attitudes toward the program?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(majorly) strongly dislike it</td>
</tr>
<tr>
<td>2</td>
<td>(dislike it)</td>
</tr>
<tr>
<td>3</td>
<td>(like it)</td>
</tr>
<tr>
<td>4</td>
<td>(love it)</td>
</tr>
</tbody>
</table>

4.12: Reading teacher response to survey questions 12-14

12. How do you administer the AR program for point values and goals? Do you take a grade? What kinds of incentives/goals are present?
I take a grade for each test they take. They receive positive plus points when they receive an 80% or above.

13. Does this encourage students’ attitudes toward reading?
Yes or No

14. On a scale of 1 to 4, how would you rate students’ attitudes toward the program?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(majorly) strongly dislike it</td>
</tr>
<tr>
<td>2</td>
<td>(dislike it)</td>
</tr>
<tr>
<td>3</td>
<td>(like it)</td>
</tr>
<tr>
<td>4</td>
<td>(love it)</td>
</tr>
</tbody>
</table>
The above illustrations show some inconsistencies among the teacher responses. Each teacher utilizes the program in different ways. Some teachers use the point values from the quizzes for grades, while others give positive plus points to students so they can redeem them for prizes. Depending on what the teacher does, depends on whether it encourages students’ attitudes toward reading. I think a lot of how the students react to the program depends on how it is presented to them by the teachers. If the teachers make it fun and give them incentives then they will become engaged. However, the program alone does not engage most students unless they are already intrinsically motivated.
Research Question 3: What are the ways in which the use of the Accelerated Reading Program supports or hinders higher level thinking in struggling readers?

I think that higher level thinking/questioning is essential to student growth in learning. When teachers use higher level questions with students, especially struggling readers, it helps them develop the skills that are normally lacking. They can learn to make text connections; text to text, text to self, text to world. They can also make inferences as well as predictions about the text they are reading. These are all skills that proficient readers do automatically.

Examining the types of questioning used

Questioning and levels of learning are very important concepts when discussing comprehension strategies. The Accelerated Reading program uses a computer based, multiple choice quiz to assess student’s comprehension of the selected text. The illustrations below show a sample of the five question quiz which Ian took after he finished reading a book at his level.
4.14: Accelerated Reading test question one

Where did Clifford and Emily Elizabeth visit Grandma?

A. at her office
B. in the hospital
C. at the seashore
D. in the mountains

4.15: Accelerated Reading test question two

While Clifford was packing down sand at Grandma's house, he saw a --

A. bolt of lightning hit the lighthouse
B. truck become stuck in the sand
C. beach umbrella fly through the air
D. little boy fall into the deep water
4.16: Accelerated Reading test question three

What did Clifford do when the waves kept getting bigger?

A. He swished the water with his tail.
B. He barked at the waves.
C. He lay down to guard the house.
D. He ran home to his doghouse.

4.17: Accelerated Reading test question four

Why did Clifford go back to the beach?

A. Grandma needed to have her medicine.
B. He wanted to get some food.
C. Emily Elizabeth had forgotten her favorite books.
D. Grandma was worried about her house.
4.18: Accelerated Reading test question five

The above illustrations show the types of questions that the Accelerated Reading program utilizes to gauge a student’s comprehension of a text. These questions are the very common “w” questions (who, what, where, when, why). Though this is very beneficial to see if the student has surface level comprehension, it only questions the basic parts of the story. It does not engage the student any further to think deeper about the text. Questions that do this would be extremely difficult to have on a computer based program.

Summary

Overall, the three questions I used to look at how the Accelerated Reading program supported the comprehension development of struggling readers were
very telling about the program. Not only did the questions reveal the strengths of
the program but they also showed the inconsistencies and flaws as well.

While the program does support readers and assess surface level
comprehension, I do not believe it is a strong support for struggling readers. Using
the leveled text completely neglects student’s choice and locks them into a
specific level. This can sometimes consume struggling reader’s thoughts,
especially if they are in a classroom with peers who are reading above the level
they are at. Another drawback of the program is that it easier for proficient readers
to be successful with. Many times students who are already proficient enjoy
reading and show signs of intrinsic motivation. Struggling readers benefit from
extrinsic motivation to encourage them to keep trying and the program itself does
not provide this.
Chapter Five

Implications

Introduction

At the conclusion of this study I assessed how overall effective the Accelerated Reading Program was at supporting the comprehension of struggling readers. I looked closely at how the leveled text, supported the comprehension of struggling readers. I also examined the ways in which the assessment tool of the Accelerated Reading Program motivated struggling readers. Finally, I studied the ways in which the use of the reading program supported or hindered higher level thinking in struggling readers.

Overall, the Accelerated Reading Program does an adequate job at assessing student’s comprehension. I do not see it being an effective support for struggling readers if used alone. This program needs to be used as a supplement with an already literacy enriched curriculum.

Implications/suggestions for focal students’ literacy development

Since this program is already being used throughout the school, the continued use of it will not hinder the focal students’ reading development. It is encouraging their reading and allowing them to choose books each week during library time. Even though the assessment does not use higher level thinking questions, it does assess surface level comprehension of the books being read.

In addition to this program, the focal students’ need intense, direct daily literacy instruction built into their school day. The only way they are going to
further their growth in reading is by working with an adult who can assess where their areas of need are and build upon their zone of proximal development. Utilizing guided reading groups, word work and direct comprehension instruction/strategies are the best way to help the students’ progress.

Suggestions for teachers

Teachers need to be aware that utilizing the Accelerated Reading program is an excellent supplement to an already literacy rich program. There are many resources available for teachers to utilize that can help struggling readers with comprehension development.

One method that teachers should utilize is Bloom’s Taxonomy when they are considering the type of questioning that they are using. See table 5.1 below for the levels of questions utilized in Bloom’s Taxonomy.

Illustration 5.1: Bloom’s Taxonomy

<table>
<thead>
<tr>
<th>Original Domain</th>
<th>New Domain</th>
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<tbody>
<tr>
<td>Evaluation</td>
<td>Creating</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Evaluating</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyzing</td>
</tr>
<tr>
<td>Application</td>
<td>Applying</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Understanding</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Remembering</td>
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</table>
In the above table, the levels of questioning go from the bottom to the top. The most surface level of comprehension is remembering. If students can recall basic information from the text then they comprehend what they are reading but they are not processing the information any more than that. Teachers need to teach students how to critically evaluate text and create new ideas based on what they are reading. This is the highest level in Bloom’s Taxonomy of learning and once students, especially struggling readers, can get to these levels, then comprehension is truly happening.

There are programs made that teachers can employ which will truly help struggling readers. Fountas and Pinnell, Guided Reading is an excellent resource for teachers to use. The illustration below shows an example of the kits that are available for this program.
Guided Reading is a made to use for small group instruction. During this small group the teacher is supposed to “guide” students through text that is at their instructional level. It is planned, focused, instruction created by the teacher. Through this instruction, the teacher can teach students the specific strategies they are lacking, which will help foster them to become independent readers.

Another way a teacher can assist struggling readers with comprehension development is by providing them with a balanced literacy approach in the classroom. The illustration below shows a sample model of what balanced literacy would look like in the classroom environment.
5.3: Balanced literacy model

The above model shows that in a balanced literacy classroom, both reading and writing are taught multiple times throughout the week. Guided Reading is a large part of a balanced literacy classroom and as shown above, struggling readers should benefit from Guided Reading on a daily basis.

Summary

For struggling readers to make gains in their comprehension development, they need explicit instruction from teachers on how to do this. Specific strategies need to be taught, modeled and practiced with assistance and then independently. Students need to feel successful so that they will try these strategies on their own and begin to use them to better their comprehension of text. If teachers complete Running Reading Records then they can see where the
students need the most help and teach specifically to those deficits first. Then they can build on what the child does well so that they can continue to feel the success.

Overall, there is not one program or strategy that will “fix” students who struggling with reading. Teacher’s need to use multiple approaches so they can see what the student responds to the best. It is ultimately the teacher’s responsibility to help students make gains and become a proficient reader.
References


Appendices

Appendix A - Observational Notes

Date: _________

<table>
<thead>
<tr>
<th>Observations</th>
<th>Interpretations</th>
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Appendix B - Elementary Reading Attitude Survey

**Elementary Reading Attitude Survey**

School_____________ Grade_____ Name____________________

Please circle the picture that describes how you feel when you read a book.

1. How do you feel when you read a book on a rainy Saturday?

   ![Picture Options]

2. How do you feel when you read a book in school during free time?

   ![Picture Options]

3. How do you feel about reading for fun at home?

   ![Picture Options]

4. How do you feel about getting a book for a present?

   ![Picture Options]

Page 1

© PAWS – www.professorgarfield.org
Survey designed by Dennis J. Kear, Wichita State University
Please circle the picture that describes how you feel when you read a book.

5. How do you feel about spending free time reading a book?

6. How do you feel about starting a new book?

7. How do you feel about reading during summer vacation?

8. How do you feel about reading instead of playing?
Please circle the picture that describes how you feel when you read a book.

9. How do you feel about going to a bookstore?

10. How do you feel about reading different kinds of books?

11. How do you feel when a teacher asks you questions about what you read?

12. How do you feel about reading workbook pages and worksheets?

Page 3

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Survey designed by Dennis J. Kean, Wichita State University
Please circle the picture that describes how you feel when you read a book.

<table>
<thead>
<tr>
<th></th>
<th>How do you feel about reading in school?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Picture 1]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How do you feel about reading your school books?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Picture 4]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How do you feel about learning from a book?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Picture 7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How do you feel when it's time for reading in class?</th>
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</thead>
<tbody>
<tr>
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<td>![Picture 10]</td>
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Please circle the picture that describes how you feel when you read a book.

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<th>Question</th>
<th>Pictures</th>
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Elementary Reading Attitude Survey Scoring Sheet

Student __________________________________________________________
Teacher _________________________________________________________

Grade ___________________________ Administration
Date ____________________________

**Scoring Guide**
- 4 points Happiest Garfield
- 3 points Slightly smiling Garfield
- 2 points Mildly upset Garfield
- 1 point Very upset Garfield

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Raw Score: ___                    Raw Score: ___

Full scale raw score ............ (Recreational + Academic): ___
Percentile ranks: ...................... Recreational

...................... Academic

...................... Full scale

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Survey designed by Dennis J. Kear, Wichita State University
Appendix

Technical Aspects of the Elementary Reading Attitude Survey

The norming project

To create norms for the interpretation of scores, a large-scale study was conducted in late January 1989, at which time the survey was administered to 18,138 students in Grades 1–6. A number of steps were taken to achieve a sample that was sufficiently stratified (i.e., reflective of the American population) to allow confident generalizations. Children were drawn from 95 school districts in 38 U.S. states. The number of girls exceeded by only 5 the number of boys. Ethnic distribution of the sample was also close to that of the U.S. population (Statistical abstract of the United States, 1989). The proportion of blacks (9.5%) was within 3% of the national proportion, while the proportion of Hispanics (6.2%) was within 2%.

Percentile ranks at each grade for both subscales and the full scale are presented in Table 1. These data can be used to compare individual students’ scores with the national sample and they can be interpreted like achievement-test percentile ranks.

Table 1
Mid-year percentile ranks by grade and scale

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Appendix

Technical Aspects of the Elementary Reading Attitude Survey (continued)

Reliability
Cronbach’s alpha, a statistic developed primarily to measure the internal consistency of attitude scales (Cronbach, 1951), was calculated at each grade level for both subscales and for the composite score. These coefficients ranged from .74 to .89 and are presented in Table 2. It is interesting that with only two exceptions, coefficients were .80 or higher. These were for the recreational subscale at Grades 1 and 2. It is possible that the stability of young children’s attitudes toward leisure reading grows with their decoding ability and familiarity with reading as a pastime.

Table 2
Descriptive statistics and internal consistency measures

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α = Cronbach's alpha (Cronbach, 1951).

Validity
Evidence of construct validity was gathered by several means. For the recreational subscale, students in the national norming group were asked (a) whether a public library was available to them and (b) whether they currently had a library card. Those to whom libraries were available were separated into two groups (those with and without cards) and their recreational scores were compared. Cardholders had significantly higher (p < .001) recreational scores (M = 30.3) than non-cardholders (M = 28.9), evidence of the subscale’s validity in that scores varied predictably with an outside criterion.

A second test compared students who presently had books checked out from their school library versus students who did not. The comparison was limited to children whose teachers reported not requiring them to check out books. The means of the two groups varied significantly (p < .001), and children with books checked out scored higher (M = 29.2) than those who had no books checked out (M = 27.3).

A further test of the recreational subscale compared students who reported watching an average of less than 1 hour of television per night with students who reported watching more than 2 hours per night. The recreational mean for the low television group (31.5) significantly exceeded (p < .001) the mean of the heavy television group (28.6). Thus, the amount of television watched varied inversely with children’s attitudes toward recreational reading.

The validity of the academic subscale was tested by examining the relationship of scores to reading ability. Teachers categorized norm-group children as having low, average, or high overall reading ability. Mean subscale scores of the high-ability readers (M = 27.7) significantly exceeded the mean of
Appendix
Technical Aspects of the Elementary Reading Attitude Survey (continued)

Low-ability readers ($M = 27.0, p < .001$), evidence that scores were reflective of how the students truly felt about reading for academic purposes.

The relationship between the subscales was also investigated. It was hypothesized that children’s attitudes toward recreational and academic reading would be moderately but not highly correlated. Facility with reading is likely to affect these two areas similarly, resulting in similar attitude scores. Nevertheless, it is easy to imagine children prone to read for pleasure but disenchanted with assigned reading and children academically engaged but without interest in reading outside of school. The inter-subscale correlation coefficient was .64, which meant that just 41% of the variance in one set of scores could be accounted for by the other. It is reasonable to suggest that the two subscales, while related, also reflect dissimilar factors—a desired outcome.

To tell more precisely whether the traits measured by the survey corresponded to the two subscales, factor analyses were conducted. Both used the unweighted least squares method of extraction and a varimax rotation. The first analysis permitted factors to be identified literally (using a limit equal to the smallest eigenvalue greater than 1). Three factors were identified. Of the 10 items comprising the academic subscale, 9 loaded predominantly on a single factor while the 10th (item 13) loaded nearly equally on all three factors. A second factor was dominated by 7 items of the recreational subscale, while 3 of the recreational items (6, 9, and 10) loaded principally on a third factor. These items did, however, load more heavily on the second (recreational) factor than on the first (academic). A second analysis constrained the identification of factors to two. This time, with one exception, all items loaded cleanly on factors associated with the two subscales. The exception was item 13, which could have been interpreted as a recreational item and thus apparently involved a slight ambiguity. Taken together, the factor analyses produced evidence extremely supportive of the claim that the survey’s two subscales reflect discrete aspects of reading attitude.

McKenna & Kear
Appendix C – Accelerated Reading survey for educators

Accelerated Reading Survey for Educators

Job Title: _____________________________________________

1. In what capacity have you worked with the Accelerated Reading Program?

2. How many of your students struggle with reading? ___________ out of___________

3. How strongly do you agree or disagree that the Accelerated Reader program is meeting its goals in helping students succeed in reading and in becoming better readers?

   4. (strongly agree)  3. (agree)  2. (disagree)  1. (strongly disagree)

4. How strongly do you agree or disagree that the AR program is positively influencing student desire to read?

   4. (strongly agree)  3. (agree)  2. (disagree)  1. (strongly disagree)

5. What is your overall opinion of the Accelerated Reader program?

6. How strongly do you agree or disagree that the Accelerated Reading Program test accurately expresses the reading level of your students?

   4. (strongly agree)  3. (agree)  2. (disagree)  1. (strongly disagree)

7. Why do you feel this way? What evidence do you have to support your opinion?
8. How often do your students utilize the Accelerated Reading Program during the school year?

9. Besides the AR program, how do you assess student reading level and comprehension in your classroom?

10. Do these assessment results correlate with the AR test results? Please circle one.

   Yes or No

11. Do you let your students read books below and/or above their reading level (as determined by the AR test results)? Please circle one.

   Yes or No

12. How do you administer the AR program for point values and goals? Do you take a grade? What kinds of incentives/goals are present?

13. Does this encourage students’ attitudes toward reading?

   Yes or No

14. On a scale of 1 to 4, how would you rate students’ attitudes toward the program?

   4 (love it)   3 (like it)   2 (dislike it)   1 (strongly dislike it)