A MIXED METHODS EXPLORATION OF READING INTERVENTION, READING MOTIVATION, AND SCHOOL ENGAGEMENT WITH HIGH SCHOOL STUDENTS

by

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DISSERTATION ABSTRACT

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Older students with reading difficulties struggle with high school academics and are at risk for not graduating. Despite a growing body of research on adolescent literacy in upper elementary and middle school, the research on high school reading interventions is relatively scant and not as promising as one would hope. Rather than assuming students know how to read well by the time they enter secondary schools, educators need to consider the reading skills students may be lacking as well as ensure that students remain motivated and engaged in learning. This study synthesizes the research findings from several studies on supplementary reading interventions for adolescents as well as research findings on how motivation is interwoven with adolescent literacy achievement. Previous research has examined motivation for reading by looking at intrinsic and avoidance motivation and forming reading profiles of students in fifth grade. My study brings these profiles to the high school level and investigates whether the reading profiles at the end of eighth grade predict reading achievement and motivation for ninth grade students in a reading intervention course and those not in a reading intervention. The study focuses on ninth grade, a pivotal year for students, and how students' involvement in reading intervention courses prior to and in ninth grade predict student achievement on

a reading comprehension measure, as well as their reading motivation and school engagement.

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This dissertation is dedicated to my partner Steyn Pearson for his unwavering support. I dedicate this to my children; Cedar, Kaila, and Solson who cheered me on the whole way. Finally, I dedicate this dissertation to my parents who have always believed in me.

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CHAPTER I

INTRODUCTION

Ninth grade has become a "critical juncture in American schooling" (Neild, 2009, p. 53). When students fail courses in ninth grade and have high absenteeism, they are considered at risk for dropping out not earning a diploma (Allensworth & Easton, 2007; Roderick & Camburn, 1999; Warren, Fazekas, Rennie-Hill, Fancsali, & Jaffe-Walters, 2011).

One explanation for academic failure in ninth grade is that many students are not prepared to meet the increased academic demands of high school (Neild, 2009; Pyle & Vaughn, 2012; Roderick & Camburn, 1999). For instance, the struggling adolescent reader is not only faced with the developmental challenges of transitioning into adulthood, but also with navigating the environmental change to the secondary school setting where discipline-specific courses, each with its own vocabulary, require extensive content reading (Alexander & Fox, 2010; Cantrell et al., 2014). Because the demands of high school include reading and writing across subject areas, students entering high school as struggling readers have a higher likelihood of failing courses, thereby placing them at risk for not graduating high school (Allensworth & Easton, 2007; Neild, 2009).

Research on secondary school (i.e., middle and high school) reading interventions has increased over the last decade, but methods have mirrored much of the elementary research in that intervention is approached from a skill-based or cognitive lens (Walker & Greene, 2009; Wigfield, 1997; Wolters, Denton, York, & Francis, 2013). Moreover, the research on secondary reading interventions in middle and high school has not yielded the same large effect sizes seen at the elementary level (Edmonds et al., 2009; Ridge &

Skinner, 2011; Scammacca, Roberts, Vaughn, Edmonds, & Wexler, 2007). Given the importance of the transition to ninth grade, not only for academic and later success, but also for personal identity development, it may be that motivation and similar non-cognitive qualities are of increased importance in comparison to the elementary grades. Although motivation research has also burgeoned in recent years, the research on *reading* motivation for high school students and specifically its relation to reading outcomes and participation in interventions, is relatively scant.

Therefore, a closer examination of students as they transition from middle school to high school is needed. My study explored student reading achievement, motivation, and course performance for students participating in reading intervention and students not in reading intervention during the critical adolescent period of eighth and ninth grade. To do this, I extended the work of Guthrie, Coddington, and Wigfield (2009), who investigated intrinsic motivation and self-efficacy for reading as well as perceived difficulty and avoidance of reading among fifth grade students. In their research, they formed four reading motivation profiles of readers based on intrinsic motivation and avoidance scores: (a) avid, (b) ambivalent, (b) apathetic, and (c) averse readers. My study investigated the relationships of these four reading motivation profiles with reading achievement, school engagement, and being on track for graduation among students transitioning from eighth grade to ninth grade, and the extent to which these relationships may vary based on whether students participated in a reading intervention course or not. A better understanding of these relationships can serve to build hypotheses regarding the complex interplay of academic and non-academic outcomes with intervention and thereby improve our ability to serve struggling adolescent readers.

CHAPTER II

LITERATURE REVIEW

The importance of strong literacy skills and the ability to access educational opportunities beyond high school have never been so critical. In the past, a lack of strong literacy skills was less of a barrier to career opportunities; however, in today's job market, those with no high school diploma or only a high school diploma are at a severe disadvantage (Biancarosa & Snow, 2004; Conley, Drummond, de Gonzales, Rooseboom, & Stout, 2011; Snow, 2002). The recent economic recession illustrates the importance of formal education beyond high school; people without any education beyond high school accounted for nearly four out of five jobs lost during the recession, and they were also the group with the fewest job gains during the economic recovery between 2010 and 2012 (Carnevale, Jayasundera, & Cheah, 2012).

This leads to the question: Are students adequately prepared for high school graduation and post-secondary opportunities? A growing disparity exists between the required literacy skills for graduates and the current skill level of adolescent learners. The National Assessment for Educational Progress reported only 38% of twelfth grade students scored at or above the proficient level in reading (National Center for Education Statistics, 2014). According to the ACT report *Reading Between the Lines*, only 51% of high school students who took the ACT in 2005 were prepared for college-level reading (Ferguson, 2006). In addition, although eighth grade students improved slightly on the reading portion of the National Assessment for Educational Progress, more than 60% of eighth grade students scored below the proficient level for reading (National Center for Education Statistics, 2013). These statistics reveal an immediate concern about the

reading skills of students entering high school and their ability to access post-secondary opportunities. If students are to succeed in high school and successfully pursue post-secondary college and career opportunities, they will require higher-order reading comprehension skills (Conley et al., 2011; Ferguson, 2006; Hock et al., 2009). Yet, in order to think about helping students succeed in and graduate from high school, it is important to consider where students are when they begin their high school career.

The Importance of Ninth Grade and Adolescent Literacy

Although adolescence can be broadly defined as between the ages of 10 and 20, fourth grade is often cited as the year when elementary literacy shifts to adolescent literacy (Moje, Overby, Tysvaer, & Morris, 2008). Fourth grade is typically when students are likely to encounter more complex informational text as they move deeper into disciplinary reading such as science and social studies. For the purpose of this paper, I also use the term *secondary students*, meaning students in grades 6-12.

A positive entry into high school and the successful completion of ninth grade increases the likelihood of students graduating with their peers. Research has identified the ninth grade year as a "critical point of vulnerability on the pathway to high school graduation and post-secondary success" (Warren et al., 2011, p. 3). During this time, students are moving to a new school, and they are entering a credit-earning system where course performance has a direct influence on graduation. Although many students navigate this transition successfully, some students fall off track during this transition (Allensworth & Easton, 2007; Neild, 2009). Academic achievement and school engagement, often exhibited as course grades and attendance, in eighth and ninth grade

are two major indicators that can be used to identify students at risk for not graduating (Allensworth & Easton, 2007; Neild, 2009).

One explanation as to why ninth grade poses challenges for students is that they are inadequately prepared for the academic literacy demands of high school where reading across disciplines is required and becomes more challenging than in elementary and middle school (Allensworth & Easton, 2007; Kelley & Decker, 2009; Neild, 2009). Secondary teachers expect students entering high school to be able to comprehend difficult text; however, many older adolescent readers struggle with basic comprehension (Biancarosa & Snow, 2004; Edmonds et al., 2009; RAND Reading Study Group, 2002). When students are inadequately prepared for the literacy challenges of high school, it can lead them to fail courses and become credit deficient at an early point in high school (Allensworth & Easton, 2007; Somers et al., 2010). This, in turn, can lead to a lack of school engagement which can contribute to a decline in student's academic success (Bridgeland, Dilulio, & Morison, 2006; Fredricks, Blumenfeld, & Paris, 2004). Therefore, adolescent reading interventions may be implemented to increase skills so that students can be successful in their courses and earn enough credits to stay on track for graduation (Scammacca et al., 2007).

Effects of Reading Intervention for Adolescents

The research findings on reading interventions for secondary students have yielded inconsistent and less successful results than the research findings for interventions with elementary students. Several recent adolescent literacy intervention studies have not shown encouraging results in improving reading achievement for struggling middle and high school readers (Edmonds et al., 2009; Roberts, Vaughn,

Fletcher, Stuebing, & Barth, 2013; Scammacca et al., 2007). Although meta-analyses on adolescent reading interventions by Edmonds et al. (2009) and Scammacca et al. (2007) reported moderate effect sizes for researcher-developed measures, both of these analyses reported much smaller effect sizes with much wider confidence intervals when analyzing studies that used standardized norm-referenced measures. For instance, when limited to only looking at studies that included a standardized measurement of comprehension (n = 7) Edmonds et al. found that the studies yielded an effect size of .47 (95% CI = 0.12, 0.82) as compared to studies that used researcher-developed measures (n = 9), which yielded an effect size of 1.19 (95% CI = 1.10, 1.37). Even smaller effect sizes were found when Scammacca et al. (2007) synthesized 23 studies and looked at the overall effect sizes of studies that used standardized norm-referenced measures (n = 8), which yielded an effect size of .35 (95% CI = -0.05, 0.75).

While there is limited research on large-scale reading interventions specifically for high school students, the empirical Enhanced Reading Opportunities (ERO) Study added a significant contribution to this body of research (Somers et al., 2010). This rigorous study evaluated two supplemental literacy programs for ninth grade students at 34 high schools whose reading skills were at least two years below grade level. The goals of the ERO supplemental interventions, WestEd's Reading Apprenticeship Academic Literacy, and the University of Kansas Center for Research on Learning's Xtreme Reading, were to help ninth grade students use effective strategies and routines, improve comprehension, and become motivated to read and enjoy reading. Across both of the interventions, students in the ERO program improved their comprehension scores by an effect size of 0.09, yet 77% of the students in interventions were still reading two years

below grade level at the end of ninth grade (Somers et al., 2010). Additionally, students in the ERO programs did not demonstrate statistically significant gains in vocabulary scores or new reading behaviors. With regard to the *on-track* indicators of attendance and credit earned, the ERO programs had a positive impact on GPA and credits earned, but these positive effects were not seen the year after the intervention.

In sum, many adolescent reading interventions have failed to help middle and high school students who struggle with reading. Many reasons may lurk behind the disappointing findings for secondary reading interventions. First, these students have a wide range of needs; thus, planning reading interventions for them is a complex task (Alexander & Fox, 2010; Hock et al., 2009). Second, in contrast to elementary students, secondary students do not typically receive explicit reading instruction throughout their day; instead, they are expected to read independently to acquire discipline-specific content (Alexander & Fox, 2010; Moje et al., 2008; Slavin, Cheung, Groff, & Lake, 2008). For struggling older readers, they are more likely to struggle with comprehension rather than word-level decoding skills (Biancarosa & Snow, 2004; Edmonds et al., 2009; Fuchs, Fuchs, & Compton, 2010). Third, much of the adolescent literacy intervention research suggests that interventions at the secondary level requires addressing a mix of components rather than a singular focus on an isolated reading skill (Biancarosa & Snow, 2004; Hock et al., 2009; Pyle & Vaughn, 2012; Vaughn et al., 2011). In part, the lack of intervention success may be attributed to reading motivation and its relationship with reading achievement.

The Role of Motivation

The ultimate purpose of reading is not to score at a certain level on a reading achievement measure, but rather to become a lifelong reader who can engage with text for information, knowledge, aesthetics, and enjoyment (Guthrie et al., 2009; Ivey & Broaddus, 2001). However, adolescent literacy intervention research tends to focus primarily on treatment and cognitive reading outcomes, while less attention is paid to the non-academic moderators of reading such as motivation. Though a focus on cognitive reading skills is important, evidence is mounting that understanding motivation and engagement, as aspects of both reading and of general academic achievement, is of critical importance with adolescent struggling readers (Cantrell et al., 2014; Kamil et al., 2008; Kelley & Decker, 2009; Moje et al., 2008). There has been a tendency in the research field to generalize the findings from elementary literacy interventions and apply them to adolescent literacy, but that generalization may not always be appropriate (Denton et al., 2011). For instance, in one study, Ridge and Skinner (2011), reported on the Title, Examine, Look, Look, Setting pre-reading procedure that was successful when used with elementary students, but secondary students appeared less motivated to participate when compared to elementary students. Thus it may be necessary to look beyond strategy instruction and curriculum changes, and include an examination of other factors, such as motivation and engagement, with adolescent learners (Fuchs et al., 2010; Guthrie, Klauda, & Ho, 2013; Kamil et al., 2008; Walker & Greene, 2009; Wolters et al., 2013).

Although less prevalent than cognitive reading research studies, the importance of reading motivation has not been ignored. In reports examining factors influencing older

readers and their reading proficiency, motivation is discussed as a key factor in adolescent literacy (Biancarosa & Snow, 2004; Kamil et al., 2008; Torgesen et al., 2007). However, in these studies, motivation is not directly tested and there are not leading conclusions as to how interventions can include motivation as a key variable.

For my study, I relied most heavily on the work of two leading researchers of reading motivation, Wigfield and Guthrie (1997), and their conceptualization of reading motivation dimensions as underlying factors of low reading achievement. In accordance with Guthrie and Wigfield's research, reading motivation has several dimensions and refers not only to the desire to be involved in a reading task or activity, but also to an individual's goals, beliefs, and dispositions toward reading (Guthrie & Wigfield, 1999; Wigfield & Guthrie, 1997). Much of the motivation literature highlights these dimensions that influence motivation in reading (Cantrell et al., 2014; Walker & Greene, 2009; Wigfield, 1997). The dimensions and their descriptions are summarized in Table 1.

Table 1

Dimensions of Reading Motivation

Sense of Efficacy	Achievement Value and Goals	Social Aspects
Beliefs about ability to be successful at task	Interest in text topic	Relationship with teacher
Perceived difficulty	Reading curiosity	Relationship with peers
Work avoidance	Grades	Social reasons for reading
	Rewards	Sense of belonging
	Competition	

Note. Adapted from "Reading Motivation: A Domain-Specific Approach to Motivation" by Allen Wigfield, 1997, *Educational Psychologist, 32,* p. 63. Copyright 1997 by Lawrence Earlbaum Associates, Inc.

One of the most common measures of reading motivation is the Motivation for Reading Questionnaire developed by Wigfield and Guthrie to assess 11 dimensions of

reading motivation (Baker & Wigfield, 1999; Wigfield & Guthrie, 1997). In an exploratory factor analysis of the individual item sets, they found that eight of the proposed dimensions had strong internal consistency. The eight dimensions are (a) self-efficacy, (b) challenge, (c) work avoidance, (d) curiosity, (e) involvement, (f) recognition, (g) competition, and (h) social (Baker & Wigfield, 1999; Wigfield, 1997). Guthrie et al. (2009) examined the ways some of these dimensions interact with each other to build a reading motivation profile. In order to develop reading profiles, they investigated four dimensions of reading motivation (a) intrinsic, (b) self-efficacy, (c) avoidance, and (d) perceived difficulty. These motivational dimensions of the reader relate to reading achievement in that they either propel readers to choose to read and use cognitive strategies to comprehend (i.e., affirming motivations), or hinder the reader in their desire to read and tackle challenging tasks (i.e., undermining motivations).

Affirming Motivations: Intrinsic Motivation and Self-Efficacy

Intrinsic motivation can be defined as the internal motivation of an individual; doing an activity for the inherent satisfaction of doing the activity (Ryan & Deci, 2000). In reading, intrinsic motivation is the willingness to read or the enjoyment of reading because the reading activity is seen as rewarding in its own right. For instance, students who are intrinsically motivated voluntarily interact with text for their own enjoyment, curiosity, or desire to gain new knowledge (Guthrie & Wigfield, 1999; Schiefele, Schaffner, Möller, & Wigfield, 2012). Studies have examined the correlation between intrinsic reading motivation and text comprehension, and found positive associations between these two constructs (Baker & Wigfield, 1999; Wigfield & Guthrie, 1997). Specifically, Wang and Guthrie (2004) studied upper elementary U.S. and Chinese

students and found that intrinsic motivation components such as curiosity, involvement, and challenge had a positive and strong direct association with text comprehension of narrative texts.

Furthermore, Schiefele et al. (2012) synthesized research findings from both quantitative and qualitative reading motivation studies from the last 20 years and confirmed the positive contribution of intrinsic motivation to reading behaviors and achievement. In a study investigating intrinsic motivation for both struggling readers and proficient readers in elementary school, researchers found that while intrinsic reading motivation explained significant variance in growth for the low reading ability group, it did not explain the variance for the proficient reader group (Logan, Medford, & Hughes, 2011). These findings imply that intrinsic motivation may play a more important role when students struggle with reading and perhaps highlight the need to identify such motivation for developing new interventions to improve struggling readers' achievement in school.

Another aspect of motivation identified as having a positive impact on student achievement is self-efficacy (Bandura, 1997; Guthrie et al., 2013; Kelley & Decker, 2009; Wigfield & Guthrie, 1997). This construct, rooted in Bandura's (1997) social cognitive theory, refers to an individual's ability, beliefs, and the expectancy for success, which impact the willingness to expend effort and persevere through difficulty. For reading, students who believe they are competent and effective readers are more likely to engage in challenging reading activities (Baker & Wigfield, 1999; Wigfield, 1997; Wigfield & Guthrie, 1997). Research findings support that students who report higher levels of perceived self-efficacy earn higher reading comprehension scores than those

students who report less perceived competence (Schiefele et al., 2012; Wigfield & Guthrie, 1997). For instance, Wolters et al. (2013) found that secondary students who were proficient readers reported higher levels of self-efficacy and reported lower levels of perceived difficulty while adolescents with weaker reading comprehension were more likely to express lower levels of self-efficacy and viewed reading tasks as more difficult. Thus, both intrinsic reading motivation and self-efficacy may play a positive role in reading achievement (Chapman & Tunmer, 1995; Guthrie et al., 2009; Schiefele et al., 2012).

Undermining Motivations: Avoidance and Perceived Difficulty

Along with factors identified as having positive contributions to motivation, other motivational factors may undermine achievement and lead to less positive outcomes. Although less attention has been paid to investigating undermining motivations that may have a negative impact, several researchers are beginning to consider the impact of avoidance and perceived difficulty on adolescents (Guthrie et al., 2009; Klauda, Wigfield, & Cambria, 2012; Lenters, 2006; Wolters et al., 2013).

When students lack intrinsic motivation, a sense of efficacy, or perceive a task to be too difficult, they may avoid challenging tasks or activities, and be considered work avoidant (Baker & Wigfield, 1999). This construct is related to goal achievement theory where the goal of the student is to avoid a task completely (Wigfield, Cambria, & Ho, 2012). With regard to reading, avoidant students may circumvent reading, may dislike books, neglect homework, pretend to read, and evade reading tasks whenever possible. However, when adolescents are reading avoidant, they may not be performance-avoidant; thus, they are not necessarily avoiding reading due to a lack of competence or a fear of

appearing incompetent, rather they are avoiding the actual text or the activity of interacting with the text (Guthrie et al., 2009; Seifert & O'Keefe, 2001).

Yet, research findings show that avoidance negatively predicts reading comprehension; therefore, students with greater avoidance tend to perform lower on reading comprehension measures (Guthrie & Wigfield, 1999; Wigfield & Guthrie, 1997). Studies examining avoidance of reading as a predictor of reading achievement found avoidance to be associated with less reading and lower reading achievement (Baker & Wigfield, 1999; Wigfield & Guthrie, 1997).

Adolscents with low self-efficacy may also perceive reading tasks as being too difficult and are less likely to engage in those tasks (Guthrie et al., 2009; Kelley & Decker, 2009). In fact, the construct of avoidance can be related to perceived difficulty; that is, students who perceive a task to be difficult are more likely to be work avoidant (Seifert & O'Keefe, 2001). On the other hand, students can feel efficacious and still believe a task to be challenging. Although they are more likely to have lower confidence in approaching a task as it becomes more difficult, depending on their confidence as a reader, they will either persevere through the task or avoid it (Wolters et al., 2013). Prior history of poor performance in reading impacts self-efficacy beliefs and also increases the perception of task difficulty (Klauda et al., 2012; Wolters et al., 2013). This perception of difficulty can start as early as the beginning of formal reading instruction, and may increase as the child progresses through school, thus often lowering feelings of competence and increasing negative attitudes toward reading (Chapman & Tunmer, 1995). In a study of seventh graders, Klauda et al. (2012) examined reading motivation for informational text and found that perceived difficulty negatively predicted

comprehension; in other words, the more difficult a text was perceived to be, the poorer a student's comprehension of that text. Although these findings are informative, additional research should be conducted to investigate the impact of these undermining reading motivations as students enter high school and whether or not reading interventions in high school might mitigate these factors.

Reading Motivation Profiles

Intrinsic motivation, self-efficacy, avoidance, and perceived difficulty are each a dimension of reading motivation (Baker & Wigfield, 1999; Guthrie & Wigfield, 1999; Schiefele et al., 2012). Guthrie et al. (2009) considered two affirming and two undermining motivations in their work with adolescent readers. They paired intrinsic motivation with avoidance and self-efficacy with perceived difficulty and found the variables in each pair were factorially distinct suggesting that each variable represented a different construct of reading motivation. In addition, Guthrie et al. (2013) reported similar findings, and point out that dedication (affirming motivations) and avoidance (undermining motivations) appeared to be qualitatively distinct constructs. Interestingly, both studies found that affirming *and* undermining motivations were associated with reading achievement.

The above findings provide evidence for combining affirming and undermining motivations to develop reader motivational profiles (Guthrie et al., 2009). Guthrie et al., (2009) created composites based on intrinsic motivation and avoidance variables, and then constructed four profiles of readers (a) *avid*, (b) *ambivalent*, (c) *apathetic*, and (d) *averse*. Avid readers have relatively high intrinsic and low avoidance; they enjoy reading in and out of school, and are dedicated to completing reading tasks. Ambivalent readers

report high intrinsic reading motivation for texts they are interested in reading, but high avoidance for school texts. Therefore students meeting this profile have motivation to read some texts, but not others, and may read more outside of school than in school (Moje et al., 2008). Apathetic readers demonstrate low intrinsic motivation and low avoidance; therefore, this group consists of students who do not have strong reading interests, but report that they do not avoid school reading and may be motivated to read and complete reading tasks by extrinsic incentives such as grades or threat of punishment. Lastly, averse readers have few reading interests and are low on intrinsic and high on avoidance. These students may be functionally literate, but struggle with higher order comprehension due to their avoidance and low interest (Guthrie et al., 2009). Because no single motivational construct gives enough information about a reader to explain reading achievement, approaching reading motivation through the profiles contributes to the prediction of reading achievement (Baker & Wigfield, 1999; Guthrie et al., 2009; Seifert & O'Keefe, 2001). By extending this work to older readers in intervention and those not in an intervention, I sought to gain a better understanding of how these profiles predict not only reading achievement, but also school engagement during the critical transition to high school.

School Engagement

Another factor that may explain the inconsistent success with adolescent struggling readers is their lack of school engagement. Once students experience struggles or setbacks in learning to comprehend text, they may, in turn, develop motivational beliefs that affect their engagement in reading (National Research Council, 2004). This cycle may then lead to lack of engagement in school altogether (Roderick & Camburn,

1999; Wolters et al., 2013). Prior research confirms that disengagement increases as students progress through school and transition to the secondary setting (Biancarosa & Snow, 2004; Fredricks et al., 2004; Roderick & Camburn, 1999; Walker & Greene, 2009). In the report, *The Silent Epidemic: Perspectives of High School Dropouts*, 47% of the students interviewed reported being disengaged from school, and 69% reported they were not motivated or inspired to work hard (Bridgeland et al., 2006).

Similar to reading motivation, school engagement is multifaceted and can be viewed through behavioral, emotional, and cognitive dimensions (Cantrell et al., 2014; Caraway, Tucker, Reinke, & Hall, 2003; Fredricks et al., 2004; National Research Council, 2004). Behavioral engagement includes student involvement in school activities, both academic and extracurricular. Lack of attendance and skipping classes are signs of behavioral disengagement and a clear early warning of eventually dropping out (Bridgeland et al., 2006; Neild, 2009; Roderick & Camburn, 1999). Emotional engagement includes students' attitudes, interests, and values, and may include reactions to peers, teachers, and the school in general (Caraway et al., 2003; Fredricks et al., 2004; Guthrie et al., 2013). For instance, the transition to high school typically includes a break in the social bonds created with teachers and peers from the middle grades and increases the influence high school peers have on an individual's behavior; when the quality and influence of these relationships are not positive, students may be at at-risk for failing courses and not graduating (National Research Council, 2004; Neild, 2009; Roderick & Camburn, 1999). The willingness to put forth effort and utilize strategies necessary to comprehend complex ideas and learn challenging skills is related to cognitive engagement (Cantrell et al., 2014; Fredricks et al., 2004). Walker and Greene (2009)

examined the relationship between motivational factors and cognitive engagement and found that high school students with strong self-efficacy and a sense of belonging were more likely to engage in cognitive strategies that help them be successful in classes.

Limitations of Previous Research

Wolters et al. (2013) stated, "Among adolescents who have experienced some difficulties with reading, those who do not feel they have the capability to improve if they work harder may be most at-risk for disengagement . . ." (p. 529). Thus, the interrelationship between reading achievement, reading motivation and school engagement is important to consider when considering interventions for adolescents (Cantrell et al., 2014). However, reading motivation studies during the transitional years from middle school to high school are limited. That is, the majority of the research examining the relationship between reading motivation and reading behaviors and achievement has been conducted with elementary-aged students (Denton et al., 2011; Kelley & Decker, 2009; Pitcher et al., 2007; Schiefele et al., 2012; Wolters et al., 2013). Additionally, research of non-academic outcomes of motivation rarely focuses specifically on *reading* motivation. Very little of either body of research examines whether patterns observed differ for children who receive intervention compared to those who do not (Wolters et al., 2013).

The Present Study

As the preceding review of the literature makes clear, a closer examination of the adolescent reader transitioning from eighth to ninth grade is necessary. The limited effects of secondary literacy interventions are disheartening; this necessitates examination of the factors that may contribute to the lack of success of reading

intervention for older students. Rather than focusing on the actual intervention, my study homed in on the adolescent reader in secondary schools. By conducting an exploratory study of secondary students participating in an intervention and those not in an intervention, I sought to better understand the relationship between reading motivation, and reading achievement. Additionally, I wanted to know more about how motivation and reading achievement interact with school engagement, especially in the early years of high school. This study examined patterns in reading performance, motivation, and engagement during the eighth to ninth grade transition years and their association with participation in reading interventions during this period, as well as with progress toward graduation requirements. Because ninth grade has been cited as a critical year for identifying students at risk for dropping out, more information is needed about what matters for adolescent learners in that important transition to high school.

This research study sought to answer the following research questions:

1. To what extent does reading achievement, reading motivation, and school engagement change over the course of eighth and ninth grade year? Additionally, to what extent do these changes depend on participation in reading intervention?
2. What are the predominant reading motivation profiles of intrinsic motivation and avoidance for students in intervention and students not in intervention?
3. To what extent does intrinsic reading motivation versus avoidant reading motivation predict reading achievement, school engagement, and credits earned, and grade point averages for ninth grade students?

4. What are students' perceptions of themselves as readers and how do they describe their reading motivation and engagement? To what extent do these perceptions differ depending on their participation in reading intervention?

I hypothesized that reading motivation and school engagement would decrease when students transition from eighth grade to ninth grade. The decrease in reading motivation and student engagement as students progress through school has been supported in previous research (Biancarosa & Snow, 2004; Eccles & Wigfield, 2002; Kamil et al., 2008; National Research Council, 2004). Although the decrease is predicted in all students, I predicted that even for students with similar reading achievement scores, it would be lower for students who were placed in the ninth grade intervention, and the predominant reading profile for students in the ninth grade intervention would be the Averse reading motivation profile (low intrinsic motivation and high avoidance). It may seem logical that older students who struggle with reading would have more undermining motivational beliefs, but the empirical evidence is inconsistent and lacking (Wolters et al., 2013); therefore, this additional evidence will add to the limited body of research on reading motivation for students in secondary schools.

CHAPTER III

METHODOLOGY

The purpose of my dissertation study was to explore the relationships among reading achievement, reading motivation, and school engagement for the ninth grade students in a high school that provided some students with a ninth grade intervention course. In my study, I examined how relations among reading achievement, reading motivation, and school engagement may differ for students who participated in an intervention course as compared to those who did not.

Since a mixed method approach allows the researcher to draw on the strengths of both qualitative and quantitative research methods, as well as minimize the weaknesses of each of those methods, the mixed method approach was deemed the most appropriate way to examine the complex topic of reading achievement and its relationship to motivation and engagement (Babbie, 2010; Creswell, 2014). Mixed method research facilitates a "coming at things differently" (Hesse-Biber & Johnson, 2013, p. 103) approach that honors both the quantitative and qualitative approaches to research.

My study used an explanatory sequential mixed methods design with two distinct phases (Creswell, 2014). The first phase was the quantitative phase where quantitative data were collected and analyzed. After the results of the quantitative phase were analyzed, I used those results to inform the second phase, the qualitative phase. Creswell (2014) stated that "the overall intent of this design is to have the qualitative data help explain in more detail the initial quantitative results" (p. 224). The first phase of my study consisted of analyzing extant test scores, survey responses, GPA, and credits earned. The second phase consisted of interviews with 11 students to help generate hypotheses about

observed relationships that were grounded in students' self-reported experiences. The information gathered from the qualitative interviews enhanced the interpretation of the test scores, credits, and survey data collected in phase one.

By interviewing students about their reading motivation and engagement, greater sensitivity can be applied to the multiple sources of data (Jick, 1979). In addition, the voices of students may add more meaning to the numbers in the quantitative measures (Lenters, 2006). Creswell (2014) described how qualitative data, such as interviews, can deepen understanding of the insights the participants have about a problem or issue. Adolescent readers had valuable insight to share regarding their experiences as readers and shed light on the observed empirical relationships gleaned from the quantitative data (Bintz, 1993; Lenters, 2006).

The study was also longitudinal in nature, though retrospectively so. A longitudinal study allows for observations over an extended period of time (Babbie, 2010). In the current study, retrospective extant data from students' eighth and ninth grade years was analyzed, and new qualitative data were gathered in their tenth grade year. By looking at student results over the three years, I was able to examine the transition to high school and how that compared to previous data collected. The purpose of my study was to contribute knowledge that would help teachers and administrators understand the complexity of adolescent readers and the factors to consider when designing interventions for students entering ninth grade.

Setting and Participants

This study was conducted in a large suburban school district in Oregon that had participated in the Middle School Intervention Project (MSIP) with the University of

Oregon's Center on Teaching and Learning from 2012-2015. As part of this longitudinal study, all middle schools in the district offered reading intervention classes and school engagement interventions to students who fell below a school-set cut-score with some exceptions to the cut-score being allowed. Data on reading achievement, reading motivation and school engagement were collected for three years (in grades 7, 8, and 9) through standardized assessment and student surveys. Students who participated in MSIP were in ninth grade during the 2013-2014 school year. Given the importance of the role of reading intervention courses in relationships observed among the key variables, the current study addressed only the students at the one high school to offer a ninth grade reading intervention course for struggling readers; other high schools were unable to offer the course due to budget constraints. Participants in the qualitative portion of the study were in the tenth grade during the 2014-2015 school year.

The urban high school that served as the setting of the study had 1,428 students in 2013-2014. The student body was comprised of 24% English Language Learners, 57% students who received free and reduced meals, and 16% of students with disabilities. As reported in Table 2, the racial demographics of the school were predominantly White with the next largest group being Latino/Hispanic students. Of the 1,428 students at the high school, 382 were in ninth grade during 2013-2014; however, my sample included 194 students who had complete MSIP data.

Table 2

Racial Demographics of Setting and Participants

	School %	Sample %	Intervention %
White	64	63.5	49
Latino/Hispanic	24	17.8	25
Multiracial	6	4.8	3.5
African American	2	3.8	5.3
Asian	2	1.9	3.5
Hawaiian/Pacific Islander	1	1.4	5.3
American Indian/Alaskan Native	1	6.7	8.8

The school had a large Latino/Hispanic population when considering Oregon demographics, but the school was still predominantly White. Interestingly, the percentage of Latino/Hispanic students in ninth grade intervention was higher when considering the whole school demographics and the ninth grade overall demographics. Although this was not a focus of my study, it is something to consider for future research.

Measures

Intervention Status

For my study, I only included students who participated in a full year of intervention. Approximately 57 students (15% of students in ninth grade and 27% of my sample) participated in the ninth grade reading intervention for both semesters. The high school administrator used three sources of information to determine which students would participate in the intervention course. One source was students' eighth grade Oregon Assessment of Knowledge and Skills (OAKS) reading test score, which had to be below 236. Another was their eighth grade STAR Reading assessment test score, which had to be below grade level with a scaled score of less than 850 and an Instructional

Reading Level of less than 8.0. The final source was teacher recommendation. The administrator used his best professional judgment when reconciling these three sources with each other. Some students who qualified for the intervention were not able to take the intervention course due to scheduling conflicts, and other students who may have entered the school district during ninth grade were placed in the class without having met the criteria for the intervention. This was likely due to students needing an elective course and based on a school counselor decision.

A teacher with a reading endorsement taught six sections of the class, which took the place of an elective course. The class did not follow a prescribed curriculum, but it did include goal setting, independent reading, mini-lessons, student conferences, and assessment of independent reading. Students spent at least 25 minutes each day reading from an independent choice novel or a novel that the student was reading for another course. The STAR reading assessment was administered at the beginning of the term to determine student's reading level in order for the teacher to match the student with the appropriate independent reading book. The teacher used Accelerated Reader (AR), a Renaissance Learning product, to assess students' basic comprehension on the independent novels they were reading. When students finished a book, they completed an AR quiz for that particular book. The teacher monitored students' AR quizzes and set goals with students based on their performance.

Babbie (2010) described how individuals may be characterized in terms of the groups that the researcher wants to study. For my study, I examined the following groups of students (see Table 3), which were defined by their participation in reading intervention classes in eighth and ninth grade:

1. Those who participated in reading intervention in middle school and high school;
2. Those who participated in reading intervention only in middle school;
3. Those who did not participate in reading intervention in either middle or high school; and
4. Those who participated in reading intervention in high school, but not middle school.

Of the total 208 students in the sample, 14 had missing data. Two of the total six sections of the course were co-taught with a special education teacher to accommodate students with disabilities.

Table 3

Groups of Students

	Ninth Grade Non-Intervention Students	Ninth Grade Intervention Students	Total
Eighth grade non-intervention students	115	32	147
Eighth grade intervention students	23	24	47
Total	138	56	194

Credits Earned

School transcripts were used to gather data on total credits earned in ninth grade. This variable served as a measure of whether students are on track to complete high school in four years. The Oregon Department of Education (ODE) calculates on-track status as students who have earned six or more credits that count for their district's graduation requirements within 12 months of first entering ninth grade. Credits earned

were recoded as a dichotomous variable with a 1 indicating on track status (i.e., credits equals six or more) and a 0 indicating not on track status (i.e., credits equal less than six).

Grade Point Average

Student grades were another way to measure student achievement in high school. A student's grade point average (GPA) represents the average of the grades earned during a marking period. For the school district where the study was conducted, GPA was determined by converting course letter grades to a common 4-point scale. For instance, an A+ is a 4.0, a B is a 3.0, a C is a 2.0, and C is a 1.0. For this study, I looked at the average of the students' GPA for first and second semester of their ninth grade year.

OAKS

The OAKS for Reading/Literature is an online computer-adaptive reading assessment that is group administered by a school test coordinator or a trained teacher and given to Oregon public school students in Grades 3-8 and 11. OAKS is a criterion-referenced test based on the Oregon content standards for Reading/Literature that were adopted in January 2003 (ODE, 2010). Based on the Oregon reading standards, the OAKS Reading test was designed to test the following literacy skills: vocabulary, read to perform a task, demonstrate general understanding, develop an interpretation, examine content and structure for information text, and examine content and structure for literary text. It consists of 50 multiple-choice questions, and usually takes approximately 50-60 minutes to complete. The cut score for students meeting benchmark in eighth grade is 232. Construct validity for OAKS has been established by comparing Oregon's test scores with the California Achievement Test, Iowa Test of Basic Skills, and NWEA

Subject Tests, and Lexile Scale. For the eighth grade OAKS Reading, concurrent validity studies show correlations between .73 and .82 (ODE, 2007).

STAR Reading

The STAR Reading assessment is an online assessment developed by Renaissance Learning for students in K-12. In 2011, STAR Reading released STAR Reading Enterprise, which was designed as a more standards-based test aligned to Common Core State Standards. The assessment has 34 items; 20 of the items are vocabulary-in-context and five are authentic text passages, each with 2-3 literal or inferential multiple-choice questions. The assessment is computer adaptive, so the difficulty of items adjusts to the skill of the reader. The assessment is group administered and proctored by the classroom teacher. Standard time limits are set for each of the items and most students finish the assessment in less than 25 minutes (Renaissance Learning, 2014). The timing element can be adjusted if students need this accommodation.

The National Center on Response to Intervention and Progress Monitoring reviewed the technical adequacy of STAR Reading in July 2011 and rated it high for its reliability and validity. The review examined three types of reliability of the performance level score for STAR Reading: generic, split-half, and retest. Generic reliability for grades 6-12 ranged from 0.90-0.93; split-half coefficients ranged from 0.89-0.91; retest coefficients for grades 6-12 ranged from 0.80-0.90. According to the Renaissance Learning (2014) *STAR Reading Technical Manual*, when analyzing construct validity, a raw correlation of 0.89 was observed between the STAR Reading test and the Degrees of Reading Power comprehension assessment. The within-grade average concurrent validity

coefficient for grades 7-12 ranged from 0.65-0.76. Meanwhile the predictive validity coefficients for grades 7-12 ranged from 0.72-0.87.

Motivation and Engagement Scale

The Motivation and Engagement Scale (MES) was administered to middle school students during the fall and spring of eighth grade in 2012-2013. It was then administered to ninth grade students in the spring of ninth grade in 2013-2014. The MES developed by Martin (2012), and published by Lifelong Achievement Group. It measures behavioral, emotional, and cognitive engagement with school (see Appendix A, items 1-44). The instrument is a survey with 11 subscales, each with four items, for a total of 44 items. Each item has a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). It has four higher-order factors to represent motivation and school engagement and each of the four has at least two subscales. The adaptive cognition scale consists of the subscales self-efficacy, valuing, and mastery orientation; the impeding cognition scale considers anxiety, failure avoidance, and uncertain control with questions such as; the adaptive behavior scale consists of planning, task management, and persistence; and the maladaptive behavior scale consists of self-handicapping and disengagement (Schwartz, 2012). For the high school version of the survey, the developer reports mean Cronbach's alpha as .79 for the across the subscales (0.77-0.82 for individual scales) (Fredricks et al., 2011; Liem & Martin, 2012) The test-retest reliability is reported as .73 for the high school version of the test (0.61-0.81) for individual scales (Fredricks et al., 2011).

Reading Motivation Scale

The Reading Motivation Scale (RMS) is a self-report instrument designed to measure students' motivation for reading; intrinsic motivation to read, reading avoidance,

self-efficacy, and perceived difficulty in reading are the four areas explored on the survey (Guthrie et al., 2009). The survey consists of 18 questions with a response format of a 4-point Likert scale: 1 = never, 2 = not usually, 3 = usually, and 4 = always (see Appendix A). A sample item for intrinsic motivation is: "Do you enjoy reading books in your free time?" To measure the construct of avoidance, a sample question is: "Do you read easier books so you won't have to work as much?" An example of a self-efficacy question is: "Can you sound out long words?" Finally, a perceived difficulty question is: "Are you a good reader?"

To determine the profiles of readers, each motivation variable was divided at the median and then students were placed in groups depending on their answers to the survey. Guthrie et al. (2009) pointed out that this avoids the students being placed on an absolute scale; instead they are placed in relation to one another based on the median of the motivation variable (see Table 4).

Table 4

Reading Motivation Profiles

	Ambivalent	Avid	Averse	Apathetic
Intrinsic Motivation	High	High	Low	Low
Avoidance	High	Low	High	Low

Interviews

Interviews were conducted in the qualitative phase of my mixed methods study; the quantitative data guided my selection of interview participants. I interviewed students from each motivation profile (avid, averse, ambivalent, and avoidant). Within each profile, I intended to interview four students: two students who had ninth grade

intervention and two students who did not have intervention. I met with 30 students and hand-delivered parental consent forms to be signed by their parents and returned to the school office. I followed up by calling parents and reminding them to turn in the consent forms. I had 11 consent forms returned. At least two students from each profile were represented with at least one student in each profile who was in ninth grade reading intervention

Creswell (2014) advised developing an interview protocol for asking questions and recording responses during the interview. I developed my interview protocol based on Creswell's suggestions of having clear instructions, questions that related to my research, probes for each question, spaces for jotting down notes, and a final thank you statement (see Appendix B). I developed some initial codes for each interview question based on the affirming and undermining motivations and on my research questions. I piloted the interview with two high school students before conducting the actual interviews with participants, and revised my questions by adding more clarification to some of the questions. I also added follow up questions to one of my interview questions based on an unexpected finding from my quantitative research. Throughout the interviews, I repeated and rephrased questions as needed (Johnson & Turner, 2003; Patton, 2002). I did not know the reading profile or the intervention status of the students until after I had finished coding the interviews. This was to help reduce any bias during interviewing or coding. The semi-structured interview approach allowed for probing questions to emerge from the dialogue with the student.

Procedure

Classroom teachers administered the STAR Reading assessment during the spring of students' eighth grade year and the spring of ninth grade. For the OAKS assessment, classroom teachers trained in test security administered the assessment during the spring of students' eighth grade year. Data collectors for MSIP and classroom teachers assisted with the survey administration for the MES and RMS during the fall and spring of eighth grade and the spring of ninth grade. Instructions were provided via a script that was read aloud. Data collectors or teachers read the MES and RMS orally to the whole class while students responded to each item. For credits-earned and GPA, I collected the data via student transcripts.

After analyzing the quantitative data, I used the results to guide the qualitative phase of my study. For Phase II of the study, I worked with the principal and school district to obtain parental consent for the selected students in the interview. Once permission was granted, I worked with the school to determine an appropriate time to make preliminary contact with the students to explain the purpose of the study and set up an appointment for the interviews. Interviews were conducted during the school day and during the students' study hall period. Students signed an assent form and were reminded they could stop the interview at any time (see Appendix B). Students met with me in the main office and I audio recorded the interviews.

Data Analysis

Since I used an explanatory sequential mixed method design, I had two phases of data analysis that were conducted separately (Creswell, 2014). An advantage of this

design is that the qualitative data built on the quantitative data in order to contribute to a more robust exploration of this topic.

During the quantitative phase of the study, I conducted a descriptive exploration of the data to ensure assumptions underlying inferential statistics were met (mean, standard deviation, minimum, maximum, correlations). For my first research question regarding reading motivation, I ran a two-way repeated measures analysis of variance (ANOVA) for each of the measures in which I had multiple time points. I also added a Sidak correction. This included the RMS and MES, both administered the fall and spring of eighth grade and in the spring of ninth grade. Thus, one factor in the ANOVA was the within subject (Time 1 vs. Time 2 vs. Time 3). The other two factors were between subjects and included intervention status in eighth grade (Intervention vs. Control) and in ninth grade (Intervention vs. Control).

In my second research question, where I investigated the reading motivation profiles, I used a median split to determine high and low scores on both intrinsic motivation and avoidance, and then counted the number of students in each profile overall and by intervention status in ninth grade. I ran a Chi-Square test to see if any differences in proportions of intervention students versus non-interventions students in the profiles were significant.

When examining the third research question considering the extent to which reading motivation profiles predict reading achievement, school engagement, and credits earned for ninth grade students, I ran an ANOVA and a Chi-Square test. Achievement and engagement served as the dependent variables in the ANOVA, which included a between subjects factor representing motivation profile (Avid vs. Averse vs. Ambivalent

vs. Apathetic). For credits earned, I ran a Chi-Square test to determine differences in proportions of students with different motivation profiles who are on track versus not on track.

Lastly, for the qualitative phase where I investigated student perceptions via interviews, I followed Creswell's (2014) recommended steps to data analysis with qualitative research (see Figure 1).

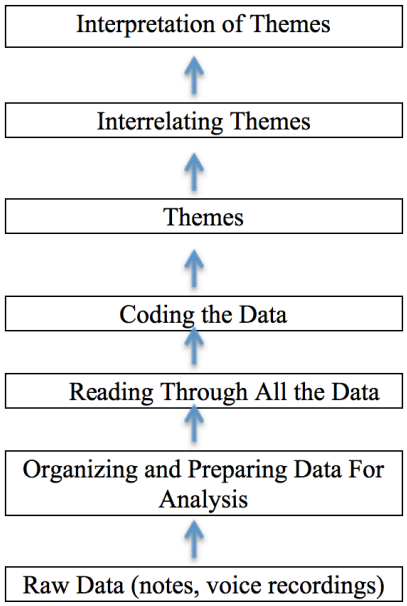

Figure 1. Data analysis steps with interviews. Adapted from *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* by John Creswell, 2014, p. 197. Copyright 2014 by Sage Publishing.

First I collected the raw data and organized it through note taking and transcribing the voice recordings. Next, I read through all the data to gain a general sense of what the students shared with me. After reading through the data, I segmented the data and determined what was relevant to my research study. As I segmented the data, I developed additional codes for topics that emerged and related to my research questions. For

example, some of my original codes were: “avoidant reading behaviors” and “intrinsic motivation.” These were codes based on what I expected to discover in the interview, but I left room for codes that emerged and related to my research questions (Creswell, 2014). For example, in my interview protocol I started with eight original codes. Then on first round of coding transcribed interviews I assigned 40 codes. After the initial coding, the second iteration was to collapse some and expand others; I ended up with 31 codes. Once the coding was complete, I looked to identify themes and how those themes related to each other and to my quantitative data. In my analysis I focused on the most salient themes. As a reliability measure, I employed the strategy suggested by Patton (2002) of triangulating analysts; I had University of Oregon professor independently code and analyze two interviews and we compared our findings to see where we were calibrated or where we differed (Merriam, 2009).

Throughout the interviews, I listened for what caused students to be motivated to read. What propelled them to want to read and become better readers? I also listened for how they perceived themselves as readers and whether that matched what they reported on the surveys.

CHAPTER IV

RESULTS

Research Question One

To answer my first research question, to what extent does reading achievement, reading motivation, and school engagement change over the course of eighth and ninth grade year and to what extent do these changes depend on participation in reading intervention, I began with descriptive statistics. For reading achievement I examined reading assessment scores from the OAKS that students completed in the spring of eighth grade and the STAR Reading Assessment from Renaissance Learning that students completed in the spring of their ninth grade year. These findings are presented in Table 5. As one might expect, students in intervention groups had lower OAKS and STAR scores than their peers who were not in intervention in eighth or ninth grade. On average, students who had intervention in eighth grade earned lower scores than students who had no intervention or intervention in grade nine. The findings on the significance and the interactions of these variables are presented in later sections.

The RMS means and standard deviations for different groups of students over three years are reported in Table 6. Some noteworthy patterns were that for the positive reading behavior subscales of intrinsic motivation and self-efficacy, the means were lower for students in intervention compared to their peers who were not in intervention. Whereas for the negative reading behaviors, the students in intervention had higher means reported for avoidance and perceived difficulty than their non-intervention peers. Reported self-efficacy is lower for all students at each time point. The findings on the significance and the interactions of these variables are presented in later sections.

Table 5

Reading Achievement Scores by Intervention Status

Intervention Status	*M*	*SD*	*n*
OAKS 2013			
Intervention 8	224.37	7.19	49
No Intervention 8	235.86	7.82	150
Intervention 9	227.11	6.44	56
No Intervention 9	235.74	8.87	137
All Students	233.03	9.12	193
STAR 2014			
Intervention 8	764.43	239.20	44
No Intervention 8	1,093.41	205.14	136
Intervention 9	863.44	194.81	55
No Intervention 9	1,078.80	252.70	125
All Students	1,012.99	256.10	180

Note. Benchmark score for OAKS was 232 for eighth grade. For STAR, the ninth grade benchmark score was 963 for ninth grade.

Table 6

RMS by Intervention Status for Three Points in Time

	Fall 2012			Spring 2013			Spring 2014		
Intrinsic Motivation									
Intervention Status	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*
Intervention 8	2.49	.89	47	2.38	.84	48	2.49	.71	37
No Intervention 8	2.83	.63	139	2.79	.75	145	2.76	.78	125
Intervention 9	2.56	.74	52	2.38	.69	55	2.56	.59	45
No Intervention 9	2.82	.69	128	2.81	.79	132	2.75	.82	117
All Students	2.74	.72	186	2.69	.79	193	2.70	.77	162
Avoidance									
Intervention 8	2.37	.66	47	2.31	.66	48	2.14	.55	37
No Intervention 8	1.90	.53	138	1.95	.62	145	1.91	.55	125
Intervention 9	2.19	.59	52	2.20	.60	55	2.01	.48	45
No Intervention 9	1.94	.58	127	1.97	.65	132	1.94	.58	117
All Students	2.02	.60	185	2.04	.65	193	1.96	.56	162
Self-Efficacy									
Intervention 8	3.12	.69	47	3.06	.74	48	2.86	.69	37
No Intervention 8	3.37	.48	139	3.30	.52	145	3.29	.53	125
Intervention 9	3.15	.53	52	3.05	.59	55	3.00	.50	45
No Intervention 9	3.39	.54	128	3.31	.59	132	3.27	.62	117
All Students	3.31	.54	186	3.24	.59	193	3.19	.60	162
Perceived Difficulty									
Intervention 8	1.99	.74	47	2.12	.68	48	2.11	.58	37
No Intervention 8	1.56	.43	139	1.69	.52	146	1.63	.48	125
Intervention 9	1.69	.52	146	2.07	.56	55	2.01	.60	45
No Intervention 9	1.63	.48	125	1.67	.58	133	1.63	.47	117
All Students	1.67	.55	186	1.79	.59	194	1.74	.54	162

School engagement means and standard deviations, measured by the MES, are presented in Table 7. Some expected trends were that for factors that increase school engagement, students in intervention groups reported less engagement for areas such as self-belief, persistence, learning focus, and valuing. Also, the means for all positive engagement variables decreased from fall of eighth to spring of eighth and then to spring of ninth while most negative engagement variables for all students increased each time the survey was administered. The findings on the significance and the interactions of these variables are presented in later sections.

Table 7

MES by Intervention Status for Three Points in Time

	Fall 2012			Spring 2013			Spring 2014		
				Self-Belief					
Intervention Status	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*
Intervention 8	80.13	17.11	47	72.83	22.81	48	70.33	21.00	35
No Intervention 8	82.75	14.19	139	79.62	14.68	146	76.55	15.04	125
Intervention 9	80.70	14.74	52	75.13	19.11	55	75.07	17.49	44
No Intervention 9	82.67	15.21	128	79.36	16.31	133	75.23	16.41	116
All Students	82.09	14.98	186	77.94	17.24	194	75.19	16.66	160
				Persistence					
Intervention 8	74.31	14.77	47	64.32	22.87	49	62.46	17.77	36
No Intervention 8	73.25	14.81	139	68.10	16.42	145	67.87	15.56	125
Intervention 9	72.46	16.39	52	66.93	18.80	55	64.43	15.68	45
No Intervention 9	74.09	14.20	128	67.78	18.15	133	67.52	16.35	116
All Students	73.52	14.77	186	67.15	18.27	194	66.66	16.18	161
				Learning Focus					
Intervention 8	78.92	17.26	47	73.75	22.83	49	70.30	21.07	36
No Intervention 8	81.48	13.28	139	77.41	14.58	144	75.88	16.46	125
Intervention 9	82.95	14.93	52	76.34	19.66	55	74.67	18.40	45
No Intervention 9	79.86	14.19	128	76.67	15.93	133	74.62	17.47	116
All Students	80.84	14.38	186	76.47	17.07	193	74.63	17.68	161
				Valuing					
Intervention 8	77.32	19.54	47	71.59	22.36	48	68.02	20.30	36
No Intervention 8	78.37	15.98	139	73.70	14.03	146	70.12	17.46	125
Intervention 9	81.05	16.23	52	73.88	17.95	55	70.94	19.02	45
No Intervention 9	76.91	17.07	128	73.20	15.12	133	69.15	17.77	116
All Students	78.10	16.90	186	73.18	16.45	194	69.65	18.09	161

Table 7 (continued).

	Fall 2012			Spring 2013			Spring 2014		
Task Management									
Intervention 8	67.49	20.98	47	63.95	20.51	48	57.99	18.47	36
No Intervention 8	69.33	17.33	139	63.95	18.75	146	64.23	17.15	125
Intervention 9	72.02	19.51	52	67.18	19.12	55	65.06	19.95	45
No Intervention 9	67.18	17.82	128	62.44	19.22	133	61.98	16.60	116
All Students	68.86	18.28	186	64.10	19.15	194	62.84	17.59	161
Planning									
Intervention 8	61.56	21.64	47	56.01	20.24	48	55.18	18.01	36
No Intervention 8	57.48	17.01	139	54.59	16.76	146	55.80	16.38	125
Intervention 9	62.24	19.54	52	59.06	17.07	55	59.48	18.66	45
No Intervention 9	56.41	17.64	128	53.33	17.74	133	54.18	15.71	116
All Students	58.51	18.32	186	54.94	17.64	194	55.66	16.70	161
Disengagement									
Intervention 8	37.40	18.11	47	39.80	19.25	49	44.98	17.23	36
No Intervention 8	31.23	16.24	139	37.20	19.28	146	39.05	18.57	125
Intervention 9	31.94	14.91	52	37.68	18.12	55	39.56	18.38	45
No Intervention 9	32.63	17.50	128	37.34	19.58	134	40.69	18.47	116
All Students	32.79	16.90	186	37.84	19.26	195	40.37	18.40	161
Self-Sabotage									
Intervention 8	47.39	17.79	47	48.11	18.21	48	47.05	18.37	35
No Intervention 8	37.24	16.66	139	37.70	17.50	146	37.21	18.07	125
Intervention 9	42.69	17.27	52	45.24	19.20	55	40.19	19.52	44
No Intervention 9	38.51	17.65	128	38.29	17.64	133	39.05	18.22	116
All Students	39.81	17.47	186	40.28	18.19	194	39.36	18.53	160
Uncertain Control									
Intervention 8	57.86	18.13	47	53.48	19.21	49	57.39	17.23	37
No Intervention 8	43.43	18.98	138	40.23	17.90	146	41.03	17.75	125
Intervention 9	53.14	19.69	52	48.04	18.83	55	49.94	18.80	45
No Intervention 9	43.95	19.20	127	41.46	19.08	134	42.78	18.61	117
All Students	47.10	19.75	185	43.56	19.08	195	44.77	18.88	162
Failure Avoidance									
Intervention 8	56.13	21.42	47	48.26	19.31	48	53.13	19.28	36
No Intervention 8	43.62	18.27	139	42.76	18.33	146	41.36	18.49	125
Intervention 9	46.89	21.92	52	45.74	18.59	55	42.50	20.07	45
No Intervention 9	46.47	19.25	128	43.75	18.93	133	44.56	18.98	116
All Students	46.78	19.82	186	44.12	18.68	194	43.99	19.25	161
Anxiety									
Intervention 8	58.47	19.15	47	58.47	22.52	48	60.60	19.04	36
No Intervention 8	53.05	19.37	139	54.02	20.31	145	58.87	20.50	125
Intervention 9	58.34	19.39	52	61.30	19.79	54	59.45	19.47	45
No Intervention 9	52.55	19.39	128	53.04	21.01	133	59.19	20.48	116
All Students	54.42	19.41	186	55.12	20.91	193	59.26	20.14	161

Reading Motivation Over Time and by Intervention

To examine the potential effect of time, I ran a two-way repeated measures ANOVA using both intervention status (No Intervention, Eighth Grade Intervention,

Ninth Grade Intervention, Eighth and Ninth Grade Intervention) and the three points in time (Fall Grade 8, Spring Grade 8, Spring Grade 9) that the RMS and MES were administered. One factor in the ANOVA was within subject (Fall 2012 vs. Spring 2013 vs. Spring 2014). For ease of reading, the means for these factors are indicate by a subscript (Fall 2012 = F8, Spring 2013 = S8, Spring 2014 = S9). The other two factors were between subjects and include intervention status in eighth grade (Intervention vs. Control), and intervention status in ninth grade (Intervention vs. Control).

Beginning with intrinsic motivation as measured on the RMS, a repeated measures ANOVA was conducted to explain the variance in intrinsic motivation using a three-way interaction of time, eighth grade intervention and ninth grade intervention. There was no significant three-way interaction, but there was a significant two-way interaction between time and ninth grade intervention (see Table 8). Examination of simple effects indicated that there was a statistically significant difference in average intrinsic motivation during the spring of eighth grade for students who participated ninth grade reading intervention ($M_{S8} = 2.72$) compared to those who did not ($M_{S8} = 2.35$, $p = .019$). Thus, those who were in ninth grade intervention reported lower intrinsic motivation than those who did not participate in ninth grade intervention. In addition, ninth grade intervention students had significantly lower intrinsic motivation in the spring of eighth grade as compared to their own intrinsic motivation in the fall of eighth grade ($M_{S8} = 2.35$ compared to $M_{F8} = 2.66$, $p = .006$).

Table 8

ANOVA Results for Intrinsic Motivation

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	.941	.941	.797	.374	.006
Grade 9 Intervention	1	2.324	2.324	1.969	.163	.014
Grade 8 * 9 Intervention	1	3.810	3.810	3.228	.075	.023
Error	140	165.262	1.180			
		Within Subjects				
Time	1.993	1.370	.687	3.706	.026	.026
Time * Grade 8 Intervention	1.993	.172	.086	.465	.628	.003
Time * Grade 9 Intervention	1.993	1.159	.581	3.136	.045	.022
Time * Grade 8 * 9 Intervention	1.993	.020	.010	.053	.948	.000
Error	279.062	51.752	.185			

Note. Results are reported with Greenhouse-Geisser correction.

Examining the subscale of reading avoidance on the RMS revealed that there were no significant three-way or two-way interactions (see Table 9). Only a main effect of eighth grade intervention was found. If students participated in eighth grade intervention, they reported higher reading avoidance than their peers who were not in an intervention class ($M = 2.21$ compared to $M = 1.98$, $p = .022$).

Table 9

ANOVA Results for Avoidance

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	3.420	3.420	5.338	.022	.037
Grade 9 Intervention	1	.193	.193	.301	.584	.002
Grade 8 * 9 Intervention	1	1.369	1.369	2.137	.146	.015
Error	140	89.704	.641			
		Within Subjects				
Time	1.986	.448	.226	1.366	.257	.010
Time * Grade 8 Intervention	1.986	.164	.083	.500	.606	.004
Time * Grade 9 Intervention	1.986	.976	.492	2.977	.053	.021
Time * Grade 8 * 9 Intervention	1.986	.067	.034	.203	.814	.001
Error	277.973	45.913	.165			

Note. Results are reported with Greenhouse-Geisser correction.

Once again for reading self-efficacy there were no significant interactions, but there were two main effects: one for time and one for eighth grade intervention (see Table 10). Pairwise comparisons for the main effect of time revealed significant differences in reported self-efficacy between fall of eighth grade and spring of ninth grade for all students (M_{F8} = 3.23 compared to M_{S9} = 3.04, p = .003). Students who participated in eighth grade intervention reported lower self-efficacy on average than other groups (M = 3.05 compared to M = 3.23, p = .047).

Table 10

ANOVA Results for Self-Efficacy

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	2.151	2.151	4.005	.047	.028
Grade 9 Intervention	1	1.545	1.545	2.875	.092	.020
Grade 8 * 9 Intervention	1	1.214	1.214	2.260	.135	.016
Error	140	75.210	.537			
		Within Subjects				
Time	1.986	1.661	.836	5.427	.005	.037
Time * Grade 8 Intervention	1.986	.554	.279	1.810	.166	.013
Time * Grade 9 Intervention	1.986	.045	.023	.147	.862	.001
Time * Grade 8 * 9 Intervention	1.986	.629	.317	2.057	.130	.014
Error	278.043	42.844	.154			

Note. Results are reported with Greenhouse-Geisser correction.

Similar to reading self-efficacy, there were no three-way or two-way interactions for the measure of perceived difficulty of reading (see Table 11). However, there were three significant main effects: eighth grade intervention status, ninth grade intervention status, and time. Perceived difficulty of reading was significantly higher among students who participated intervention in eighth grade or ninth grade compared to students who were not in intervention in either of those years (Eighth grade M = 2.02 compared to M = 1.73, p = .001; Ninth grade M = 1.99 compared to M = 1.77, p = .023). A significant

change in perceived difficulty of reading between eighth grade fall and spring was evident (M_{F8} = 1.74 compared to M_{S8} = 1.95, $p < .001$). Additionally, students reported significantly higher perceived difficulty in the spring of ninth grade compared to the fall of eighth grade (M_{S9} = 1.94 compared to M_{F8} = 1.74, $p < .001$).

Table 11

ANOVA Results for Perceived Difficulty

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	5.752	5.752	10.543	.001	.070
Grade 9 Intervention	1	2.902	2.902	5.319	.023	.036
Grade 8 * 9 Intervention	1	1.209	1.209	2.216	.139	.015
Error	141	76.925	.546			
		Within Subjects				
Time	1.937	2.522	1.302	10.541	.000	.070
Time * Grade 8 Intervention	1.937	.267	.138	1.117	.327	.008
Time * Grade 9 Intervention	1.937	.165	.085	.690	.498	.005
Time * Grade 8 * 9 Intervention	1.937	.199	.103	.834	.432	.006
Error	273.091	33.742	.124			

Note. Results are reported with Greenhouse-Geisser correction.

School Engagement Over Time and By Intervention

Results from the repeated measures ANOVA investigating the effect of time and intervention status on school engagement as measured by the MES are presented in the following tables and paragraphs. The following section of results are organized by reporting the simplest results first and ending with the most complex results; thus starting with the MES factor with null association and ending with the MES factors with three-way interactions.

Student reporting of anxiety was the only MES factor that did not demonstrate two-way or three-way interactions, main effects, or simple effects (see Table 12).

Table 12

ANOVA Results for Anxiety

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	420.157	420.157	.529	.468	.004
Grade 9 Intervention	1	454.203	454.203	.572	.451	.004
Grade 8 * 9 Intervention	1	1,571.678	1,571.678	1.978	.162	.014
Error	140	111,258.885	794.706			
		Within Subjects				
Time	1.970	275.598	139.878	.720	.486	.005
Time * Grade 8 Intervention	1.970	215.536	109.394	.563	.568	.004
Time * Grade 9 Intervention	1.970	578.160	293.440	1.510	.223	.011
Time * Grade 8 * 9 Intervention	1.970	283.918	144.100	.741	.476	.005
Error	275.839	53,610.932	194.356			

Note. Results are reported with Greenhouse-Geisser correction.

Neither self-belief nor persistence as measured by the MES demonstrated three-way or two-way interactions (see Table 13 and 14 respectively). For both of these engagement variables the only statistically significant main effect was time. In each case, all students reported lower levels of self-belief and persistence in spring of eighth grade and spring of ninth grade relative to fall of eighth grade (Self-Belief, $M_{S8} = 75.52$ and $M_{S9} = 73.76$ compared to $M_{F8} = 80.97$, $p = .005$ and $p < .001$; Persistence, $M_{S8} = 66.82$ and $M_{S9} = 65.55$ compared to $M_{F8} = 73.94$, $p < .001$ and $p < .001$).

In addition to self-belief and persistence, task management was one of the subscales where time was the only the main effect (see Table 15). On average students reported significantly lower task management in spring of ninth grade compared to fall of eighth grade ($M_{S9} = 62.65$ compared to $M_{F8} = 68.36$, $p = .014$).

Table 13

ANOVA Results for Self-Belief

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	1,657.096	1,657.096	3.736	.055	.026
Grade 9 Intervention	1	602.238	602.238	1.358	.246	.010
Grade 8 * 9 Intervention	1	140.772	140.772	.317	.574	.002
Error	139	61,658.556	443.587			
		Within Subjects				
Time	1.965	2,420.721	1,231.657	8.772	.000	.059
Time * Grade 8 Intervention	1.965	397.585	202.291	1.441	.239	.010
Time * Grade 9 Intervention	1.965	64.250	32.690	.233	.789	.002
Time * Grade 8 * 9 Intervention	1.965	31.665	16.111	.115	.888	.001
Error	273.193	38,358.768	140.409			

Note. Results are reported with Greenhouse-Geisser correction.

Table 14

ANOVA Results for Persistence

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	121.579	121.579	.240	.625	.002
Grade 9 Intervention	1	1,029.858	10,29.858	2.034	.156	.014
Grade 8 * 9 Intervention	1	209.831	209.831	.414	.521	.003
Error	140	70,893.246	506.380			
		Within Subjects				
Time	1.979	3,664.802	1,851.397	13.751	.000	.089
Time * Grade 8 Intervention	1.979	511.981	258.644	1.921	.149	.014
Time * Grade 9 Intervention	1.979	186.303	94.117	.699	.497	.005
Time * Grade 8 * 9 Intervention	1.979	615.612	310.997	2.310	.102	.016
Error	277.127	37,311.253	134.636			

Note. Results are reported with Greenhouse-Geisser correction.

Self-sabotage did not reveal any main effects of time or any two-way or three-way interactions (see Table 16). However, a significant effect of eighth grade intervention status was present and showed that students who participated in eighth grade intervention reported higher self-sabotaging indicators compared to students who did not participate in eighth grade intervention ($M = 47.73$ compared to $M = 38.56$, $p = .003$).

Table 15

ANOVA Results for Task Management

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	1,947.752	1,947.752	3.034	.084	.021
Grade 9 Intervention	1	625.653	625.653	.975	.325	.007
Grade 8 * 9 Intervention	1	2,233.155	2,233.155	3.479	.064	.024
Error	140	89,875.605	641.969			
		Within Subjects				
Time	1.985	1,432.249	721.714	4.006	.020	.028
Time * Grade 8 Intervention	1.985	165.299	83.295	.462	.629	.003
Time * Grade 9 Intervention	1.985	266.369	134.224	.745	.475	.005
Time * Grade 8 * 9 Intervention	1.985	174.803	88.084	.489	.612	.003
Error	277.832	50,056.082	180.167			

Note. Results are reported with Greenhouse-Geisser correction.

Table 16

ANOVA Results for Self-Sabotage

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	5,399.592	5,399.592	9.360	.003	.063
Grade 9 Intervention	1	59.165	59.165	.103	.749	.001
Grade 8 * 9 Intervention	1	1,525.925	1,525.925	2.645	.106	.019
Error	139	80,188.988	576.899			
		Within Subjects				
Time	1.963	80.328	40.924	.214	.803	.002
Time * Grade 8 Intervention	1.963	365.481	186.200	.975	.377	.007
Time * Grade 9 Intervention	1.963	124.365	63.360	.332	.714	.002
Time * Grade 8 * 9 Intervention	1.963	756.269	385.292	2.018	.136	.014
Error	272.835	52,097.189	190.947			

Note. Results are reported with Greenhouse-Geisser correction.

For the area of uncertain control, there were no significant interactions. Yet two main effects were discovered: one for eighth grade intervention and one for time (see Table 17). Students who participated in eighth grade intervention reported higher uncertain control on average than students who did not participate in intervention in eighth grade ($M = 56.25$ compared to $M = 42.73$, $p < .001$). Pairwise comparisons for the

main effect of time indicated significant differences in reported uncertain control between fall of eighth grade and spring of eighth grade for all students (M_{F8} = 51.82 compared to M_{S8} = 47.21, p = .039).

Table 17

ANOVA Results for Uncertain Control

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
Between Subjects						
Grade 8 Intervention	1	12,584.534	12,584.534	21.107	.000	.129
Grade 9 Intervention	1	394.564	394.564	.662	.417	.005
Grade 8 * 9 Intervention	1	1,645.352	1,645.352	2.760	.099	.019
Error	142	84,665.582	596.236			
Within Subjects						
Time	1.975	974.726	493.448	3.212	.042	.022
Time * Grade 8 Intervention	1.975	312.584	158.243	1.030	.358	.007
Time * Grade 9 Intervention	1.975	44.185	22.368	.146	.862	.001
Time * Grade 8 * 9 Intervention	1.975	861.036	435.893	2.837	.061	.020
Error	280.498	43,096.393	153.642			

Note. Results are reported with Greenhouse-Geisser correction.

For the subscale of planning on the MES, no three-way interaction was found, but one significant two-way interaction was for intervention in eighth and ninth grade. No significant main effect for time was found (see Table 18). A significant between-subjects effect was evident for students who had two years of intervention status in eighth and ninth grade as compared to students without intervention (M = 55.63 compared to M = 53.85, p = .008).

Examining the results for learning focus and valuing on the MES revealed another area where there were no three-way interactions; however, there were significant main effects of time and of intervention status (see Tables 19 and 20). In examining pairwise comparisons for the main effect of time, statistically significant higher learning focus was evident in fall of eighth grade compared to spring of eighth grade and to spring of ninth

grade (M_{F8} = 82.05 compared to M_{S8} = 76.03, p = .001 and M_{S9} = 74.06, p < .001 respectively). Similarly, students reported lower levels of valuing in the spring of eighth grade (M_{S8} = 73.41) and spring of ninth grade (M_{S9} = 69.76) compared to the fall of eighth grade (M_{F8} = 79.14, p = .001 and p < .001 respectively). In examining pairwise comparisons for the interaction effect of intervention in eighth and ninth grade for learning focus, among those who had ninth grade intervention, learning focus was greater for those who did not get eighth grade intervention (M = 79.04) than those who did get eighth grade intervention (M = 71.35, p = .010). The same was true for valuing where students with two years of intervention reported significantly lower valuing (M = 69.18) compared to peers with no intervention (M = 72.97) or compared to peers with only one year of intervention either in eighth or ninth grade (M = 76.09, M = 78.17, p = .036).

Table 18

ANOVA Results for Planning

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	.030	.030	.000	.994	.000
Grade 9 Intervention	1	212.811	212.811	.419	.519	.003
Grade 8 * 9 Intervention	1	2,569.635	2,569.635	5.054	.026	.035
Error	140	71,179.633	508.426			
		Within Subjects				
Time	1.981	760.840	384.074	2.087	.126	.015
Time * Grade 8 Intervention	1.981	100.478	50.722	.276	.757	.002
Time * Grade 9 Intervention	1.981	78.145	39.448	.214	.805	.002
Time * Grade 8 * 9 Intervention	1.981	125.650	63.429	.345	.707	.002
Error	277.336	51,035.148	184.019			

Note. Results are reported with Greenhouse-Geisser correction.

Results for the disengagement subscale are reported in Table 21 and indicate a statistically significant three-way interaction. Thus, differences over time in

disengagement depended on intervention status in both eighth and ninth grades (See Figure 2). Follow-up investigations of simple effects are discussed below.

Table 19

ANOVA Results for Learning Focus

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	1,287.090	1,287.090	2.744	.100	.019
Grade 9 Intervention	1	193.656	193.656	.413	.522	.003
Grade 8 * 9 Intervention	1	2,415.069	2,415.069	5.149	.025	.035
Error	141	66,136.500	469.053			
		Within Subjects				
Time	1.984	3,110.229	1,568.012	12.187	< .001	.080
Time * Grade 8 Intervention	1.984	112.740	56.838	.442	.642	.003
Time * Grade 9 Intervention	1.984	207.044	104.380	.811	.444	.006
Time * Grade 8 * 9 Intervention	1.984	12.246	6.174	.048	.952	.000
Error	279.680	35,983.269	128.659			

Note. Results are reported with Greenhouse-Geisser correction

Table 20

ANOVA Results for Valuing

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	563.961	563.961	1.049	.308	.007
Grade 9 Intervention	1	48.180	48.180	.090	.765	.001
Grade 8 * 9 Intervention	1	2,400.183	2,400.183	4.464	.036	.031
Error	140	75,276.201	537.687			
		Within Subjects				
Time	1.874	3,901.660	2,081.798	13.935	< .001	.091
Time * Grade 8 Intervention	1.874	17.250	9.204	.062	.931	.000
Time * Grade 9 Intervention	1.874	98.244	52.420	.351	.690	.003
Time * Grade 8 * 9 Intervention	1.874	6.813	3.635	.024	.971	.000
Error	262.385	391,97.364	149.389			

Note. Results are reported with Greenhouse-Geisser correction.

Pairwise comparisons for simple effect of eighth grade intervention status revealed one significant difference. In the spring of ninth grade among students in ninth

grade intervention those who experienced intervention in eighth grade had higher disengagement (M = 57.87) than those who did not experience intervention in eighth grade (M = 38.69, p = .002).

Simple effects comparisons for ninth grade intervention status also demonstrated a single significant comparison. In the spring of ninth grade, among students who did not receive intervention in eighth grade, those who were in ninth grade intervention had lower disengagement (M = 31.58) than those who were not in ninth grade intervention (i.e., no intervention in either year; M = 39.90, p = .042).

Simple effect comparisons for time showed that students who were not in the reading interventions in eighth or ninth grade reported significantly higher disengagement in spring of eighth compared to the fall of eighth grade (M_{S8} = 36.82 compared to M_{F8} = 31.14, p =.006). This trend continued in ninth grade. In the spring of ninth grade, students again reported significantly higher disengagement compared to the fall of eighth grade (M_{S9} = 39.90 compared to M_{F8} = 31.14 p < .001). Students who were in interventions for both eighth and ninth grade also reported significantly higher disengagement in the spring of ninth grade compared to the fall of eighth grade (M_{S9} = 49.42 compared to M_{F8} = 34.49, p = .003).

Failure avoidance was another subscale that revealed a three-way interaction between time and intervention status in each grade (see Table 22 and Figure 3). Compared to disengagement several more simple effects were found. Pairwise comparisons investigating the simple effect of eighth grade intervention status revealed in each time period that for students who did not receive ninth grade intervention failure avoidance was higher for those in eighth grade intervention than for those not in eighth

grade intervention. In the fall of eighth grade those in eighth grade intervention reported much higher failure avoidance ($M = 64.61$) than those not in intervention in eighth grade ($M = 42.26$, $p < .001$). These differences were smaller but still significant in spring of eighth grade and spring of ninth grade. Thus, among students who did not receive ninth grade intervention, those in eighth grade intervention had higher failure avoidance ($M_{S8} = 53.88$ and $M_{S9} = 57.71$) compared to students not in intervention in eighth grade ($M_{S8} = 41.24$, $p = .014$ and $M_{S9} = 43.54$, $p = .008$). The final simple effect of eighth grade intervention occurred in the spring of ninth grade among students who had intervention in ninth grade. Students in eighth grade intervention had higher failure avoidance ($M = 53.84$) than those not in eighth grade intervention ($M = 34.26$, $p = .001$).

Table 21

ANOVA Results for Disengagement

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Between Subjects				
Grade 8 Intervention	1	2,686.269	2,686.269	4.155	.043	.029
Grade 9 Intervention	1	75.063	75.063	.116	.734	.001
Grade 8 * 9 Intervention	1	411.957	411.957	.637	.426	.004
Error	141	91,163.595	646.550			
		Within Subjects				
Time	1.987	2,385.267	1,200.479	7.667	.001	.052
Time * Grade 8 Intervention	1.987	563.364	283.535	1.811	.166	.013
Time * Grade 9 Intervention	1.987	106.328	53.514	.342	.709	.002
Time * Grade 8 * 9 Intervention	1.987	1,040.423	523.633	3.344	.037	.023
Error	280.157	43,869.118	156.588			

Note. Results are reported with Greenhouse-Geisser correction.

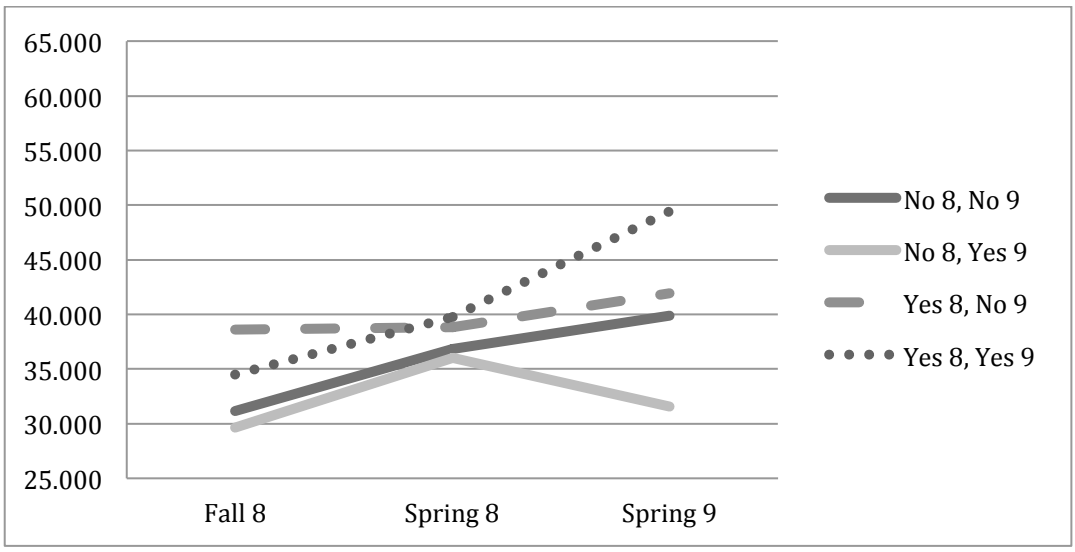

Figure 2. Differences in mean values for disengagement over time for students who had no intervention in eighth or ninth grade; students who had no intervention in eighth grade, but intervention in ninth grade; students who had intervention in eighth grade, but not in ninth grade; students who had intervention for both eighth and ninth grade.

There were two simple effects observed for intervention status in ninth grade. The first was among students who did not receive eighth grade intervention in the spring of ninth grade. Among these students those who not in intervention in ninth grade reported higher failure avoidance ($M = 47.41$) than those in ninth grade intervention ($M = 41.70$, $p = .030$). The second was among students who had eighth grade intervention. In the fall of eighth grade, eighth grade intervention students who did not continue with intervention in ninth grade reported higher failure avoidance ($M = 74.41$) than those who continued on to ninth grade intervention ($M = 58.73$, $p = .029$).

Finally two simple effects of time were also observed. These effects were solely for students not in eighth grade intervention, but in ninth grade intervention. For these students, lower failure avoidance was reported in the spring of ninth grade ($M_{S9} = 34.26$) compared to both the fall and spring of eighth grade ($M_{F8} = 44.09$, $p = .043$; $M_{S8} = 46.18$, $p = .004$).

Table 22

ANOVA Results for Failure Avoidance With Intervention and Time Variables

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
Grade 8 Intervention	1	9,893.310	9,893.310	15.154	< .001	.098
Grade 9 Intervention	1	1,595.128	1,595.128	2.443	.120	.017
Grade 8 * Grade 9 Intervention	1	1,100.526	1,100.526	1.686	.196	.012
Error	140	91,398.116	652.844			
		Within Subjects				
Time	1.980	611.621	308.850	1.776	.172	.013
Time * Grade 8 Intervention	1.980	1,405.086	709.526	4.081	.018	.028
Time * Grade 9 Intervention	1.980	330.603	166.945	.960	.383	.007
Time * Grade 8 * 9 Intervention	1.980	1,543.617	779.480	4.483	.012	.031
Error	277.244	48,205.372	173.873			

Note. Results are reported with Greenhouse-Geisser correction.

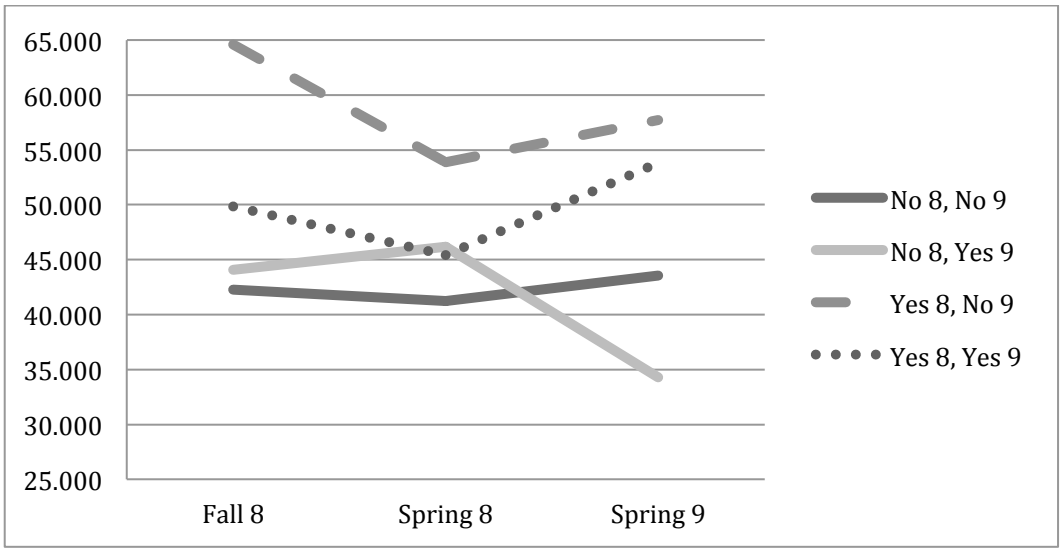

Figure 3. Differences in mean values for failure avoidance over time for students who had no intervention in eighth or ninth grade; students who had no intervention in eighth grade, but intervention in ninth grade; students who had intervention in eighth grade, but not in ninth grade; students who had intervention for both eighth and ninth grade.

Research Question Two

For my second research question, I wanted to know the proportions of students who fell into different reading motivation profiles based on their participating in

intervention (see Table 23). Descriptive statistics indicated that the predominant reading motivation profiles for students in ninth grade intervention were the Averse reading profile (low intrinsic and high avoidance) and Avid reading profile (high intrinsic and low avoidance). Meanwhile, the Avid reader profile was the most predominant profile for students who were not in intervention during ninth grade. Within the Ambivalent profile, half never received intervention. This group was small. The Apathetic profile group was a bigger group, with a slight majority coming from the eighth grade intervention group. Although there were some obvious differences in the reading profiles and intervention status, a Chi-Square test revealed that reading profile was not related to intervention status in either eighth or ninth grade ($\chi^2 = 11.793$, $df = 12$, $p = .462$).

Research Question Three

My last quantitative research question examined whether extent intrinsic reading motivation versus avoidant reading motivation predicted reading achievement, school engagement in the spring of ninth grade, on-track status, and grade-point averages for ninth grade students. When examining the extent to which reading motivation profiles predicted reading achievement, I ran a one-way ANOVA with the ninth grade STAR scores as the dependent variable and student reading motivation profile as the independent variable (see Table 24). Significant effects of reader type were demonstrated for reading achievement, such that students in the Avid reading profile scored significantly higher on the STAR assessment ($M = 1125.554$) compared to students in the Apathetic reading profile ($M = 948.657$, $p = .003$) and compared to students in the Averse reading profile ($M = 911.159$, $p = < .001$).

Table 23

Number of Students in Each Reading Profile by Intervention Status

Reader Profile	Percent Within Profile and Group	No Intervention	Grade 8 Intervention	Grade 8 * 9 Intervention	Grade 9 Intervention	Total
Ambivalent	*n*	6	1	3	2	12
	% within profile	50%	8%	25%	17%	100%
	% within intervention group	5%	4%	13%	6%	6%
Apathetic	*n*	21	6	4	6	37
	% within profile	57%	16%	11%	16%	100%
	% within intervention group	18%	26%	17%	19%	19%
Averse	*n*	22	8	6	9	45
	% within profile	49%	18%	13%	20%	100%
	% within intervention group	19%	35%	25%	28%	23%
Avid	*n*	49	4	5	10	68
	% within profile	72%	6%	7%	15%	100%
	% within intervention group	43%	17%	21%	31%	35%
No Profile	*n*	17	4	6	5	32
	% within profile	53%	13%	19%	16%	100%
	% within intervention group	15%	17%	25%	16%	17%
Total	*n*	115	23	24	32	194

Note. Percentages may not total 100 due to rounding.

Table 24

The Effects of Reading Profile on Reading Achievement

Variable and Source	*SS*	*MS*	*F*	*p*	η^2
STAR Scaled Score					
Reading Profile	1,423,219.6	362,008.014	8.28	< .001	.141
Error	8,657,336.38	57,333.345			

When examining school engagement, I ran a series of one-way ANOVAs (see Table 25). School engagement scales as measured by the MES in spring of ninth grade served as the dependent variables in these ANOVAs, which included a between subjects factor representing motivation profile (Avid vs. Averse vs. Ambivalent vs. Apathetic). Significant effects of reader type were evident for a majority of the subscales: self-belief, persistence, valuing, disengagement, self-sabotage, uncertain control, and failure avoidance.

For the sub scales that were significant, I examined pairwise comparisons (see Table 26). Students in the Avid reader profile group reported statistically significant higher self-belief compared to Averse readers and Apathetic readers (respectively $p = .002$ and $p = .025$). For both persistence and valuing, students in the Avid reader profile group reported statistically significant higher valuing only compared to Averse readers ($p = .019$). For disengagement and self-sabotage, Avid and Apathetic readers reported significantly lower levels of these negative dimensions of engagement than Ambivalent an Averse readers did. For uncertain control, Avid and Apathetic readers again reported significantly lower levels of this negative dimension, but only as compared to Ambivalent readers; Averse readers did not significantly differ from any group on this dimension. Finally, despite the significant effect of profile for failure avoidance, follow up pairwise comparisons revealed no significant differences between specific pairs of profiles.

Table 25

The Effects of Reading Profile on School Engagement

Variable and Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
Self-Belief						
Reading Profile	3	4,016.36	1,338.79	5.21	.002	.091
Error	156	40,091.52	257.00			
Persistence						
Reading Profile	3	3,702.32	1,234.11	5.08	.002	.088
Error	157	38,173.60	243.14			
Learning Focus						
Reading Profile	3	6,109.81	2,036.60	7.28	.122	.122
Error	157	43,901.53	279.63			
Valuing						
Reading Profile	3	2,784.93	928.31	2.94	.035	.053
Error	157	49,568.45	315.72			
Task Management						
Reading Profile	3	1,655.23	551.74	1.81	.148	.033
Error	157	47,850.94	304.78			
Planning						
Reading Profile	3	1,606.90	535.63	1.96	.123	.036
Error	157	43,013.14	273.97			
Disengagement						
Reading Profile	3	5,016.92	1,672.31	5.34	.002	.093
Error	157	49,128.66	312.92			
Self-Sabotage						
Reading Profile	3	6,610.92	2,203.64	7.16	< .001	.121
Error	156	47,987.42	307.61			
Uncertain Control						
Reading Profile	3	5,209.95	1,736.65	5.26	.002	.091
Error	158	52,182.64	330.27			
Failure Avoidance						
Reading Profile	3	3,195.06	1,065.02	2.98	.033	.054
Error	157	56,082.59	357.21			
Anxiety						
Reading Profile	3	2,903.54	967.85	2.45	.066	.045
Error	157	61,996.48	394.88			

Table 26

Means and Significant Pairwise Differences for MES by Reader Profile

Variable and Source	Avid	Ambivalent	Apathetic	Averse
Self-belief	80.98[a]	71.50[a,c]	71.56[b,c]	70.20[b,c]
Persistence	71.66[a]	67.03[a,b]	65.22[a,b]	60.04[b]
Valuing	73.44[a]	71.20[a,b]	69.76[a,b]	63.29[b]
Disengagement	36.52[a]	51.53[b]	36.13[a]	46.85[b]
Self-sabotage	34.30[a]	55.01[b]	36.34[a]	45.39[b]
Uncertain Control	40.73[a]	62.25[b]	43.19[a]	47.51[a,b]
Failure Avoidance	42.06[a]	55.41[a]	39.42[a]	47.69[a]

Note. Means within a row that have common superscripts are not significantly different from each other using a family-wise error corrected rejection rule.

Additionally, reader profile did not predict GPA (see Table 27), but did predict on-track status for those students without a profile ($\chi^2 = 17.76$, $df = 4$, $p = .001$). As mentioned earlier, students who are not on track to graduate have earned less than six credits during their ninth grade year. Examination of Table 28 suggested those missing a profile were significantly more likely not to be on track than those who had reader profiles. It is presumed that students without a profile were absent on the days the survey was administered.

Table 27

The Effects of Reading Profile on GPA

Variable and Source	*SS*	*MS*	*F*	*p*	η_p^2
GPA					
Reading Profile	6.78	1.70	2.30	.060	.045
Error	143.53	.736			

Table 28

Number of Students in Each Reading Profile by On-Track Status in Grade Nine

Reader Profile	Percent Within Profile and Group	On Track	Not On Track	Total
Ambivalent	*n*	9	3	12
	% within profile	75	25	100
	% within on track status	5.2	8.3	5.8
Apathetic	*n*	34	3	37
	% within profile	91.9	8.1	100
	% within on track status	19.8	8.3	17.8
Averse	*n*	40	5	45
	% within profile	88.9	11.1	100
	% within on track status	23.3	13.9	21.6
Avid	*n*	60	8	68
	% within profile	88.2	11.8	100
	% within on track status	34.9	22.2	32.7
No Profile	*n*	29	17	46
	% within profile	63	37	100
	% within on track status	16.9	47.2	22.1
Total	*n*	172	36	208
	% of total	82.7	17.3	100

Note. Percentages may not total 100 due to rounding.

Qualitative Results: Research Question Four

My fourth research question was focused on students' perceptions of themselves as readers and how they described their reading motivation and engagement, and to what extent those perceptions differed depending on their participation in reading intervention. To answer my final research questions, I interviewed 11 students from my sample; students were from all profile groups and were a mix of students who had intervention in ninth grade and those who did not have intervention in ninth grade (see Table 29). When I interviewed students and did my initial coding, I was unaware of their reading motivation profile and any intervention they may have had in eighth or ninth grade. This limited any potential bias in my interviewing and coding. However, in the interview I did have students self-identify what motivational profile they thought best described them and asked if they were in an intervention class in ninth grade. To investigate the first part of my research question about students' perception of themselves as readers and their

description of own reading motivation and engagement, I analyzed the data by reading motivation profile. For the second part of my research question, I analyzed the data by intervention status in ninth grade. My intervention versus non-intervention comparisons are confounded with profile, particularly because contrary to expectations, nonintervention students were not solely in the Avid reading profile.

Table 29

Number of Interviewed Students in Each Reading Profile by Intervention Status in Grade Nine

Reader Profile	Percent Within Profile and Group	No Intervention in Grade 9	Grade 9 Intervention	Total
Ambivalent	*n*	3	1	4
	% within profile	75%	25%	100%
	% within interview group	50%	20%	36%
Apathetic	*n*	1	1	2
	% within profile	50%	50%	100%
	% within interview group	17%	20%	18%
Averse	*n*	1	2	3
	% within profile	33%	67%	100%
	% within interview group	17%	40%	27%
Avid	*n*	1	1	2
	% within profile	50%	50%	100%
	% within interview group	17%	20%	18%
Total	*n*	6	5	11

Several themes emerged from the interviews after I coded and analyzed the qualitative data. First, contrary to how students self-identified their reading profile in the interview, the reading motivation profiles that were determined from the quantitative survey were supported when students were asked more open-ended questions about intrinsic motivation and avoidance. Second, in contrast to previous research findings that reading motivation declines as students move from elementary school to secondary school, several students in my case study shared that their reading motivation improved as they moved into middle and high school. Third, the interviews with students who had ninth grade reading intervention revealed that school engagement increased during ninth

grade year; this supports the quantitative finding on disengagement discussed in my quantitative results section. Additional findings included the impact of text choice, teacher relationship and instruction, and text type.

Reading Motivation Profiles

The reading motivation profiles (see Table 4) developed by Guthrie et al. (2009) were determined for each student in my sample in Phase I of my research study during my quantitative analysis of student survey responses using the RMS. As described in my Methods section, I used a median split for the variables of intrinsic motivation and avoidance to categorize students into four reading motivation profiles: (a) avid readers were high intrinsic motivation and low avoidance; (b) apathetic readers (low intrinsic motivation, low avoidance); (c) ambivalent readers (high intrinsic motivation, high avoidance); and (d) averse readers (low intrinsic motivation, high avoidance).

As part of the interview, I gave students a description of each of the reader profiles (see Appendix B) and asked them to identify which profile fit them best. Even though students answered the open-ended interview questions with responses that supported the findings for the quantitative placement of the reading motivation profiles, the profiles did not always match what students said about themselves. All three Averse readers identified most with the Apathetic reader profile and the two Apathetic readers identified as Ambivalent. More than half the students identified themselves as Ambivalent readers. Four (three Ambivalent and one Avid reader) of the 11 students chose the profile that had been determined for them through the quantitative survey data.

In the interviews, I asked open-ended questions about reading motivation and coded student responses using variables from the RMS survey such as intrinsic

motivation, self-efficacy, perceived difficulty, and avoidance. When I analyzed the coded interviews, I looked closely at intrinsic motivation and avoidance, the two variables used to determine reading motivation profile, to see if students' perception of their own reading motivation supported the quantitative profile assignment. The student responses that varied most from each other were between the students in the Avid reading profile and the students in the Averse reading profile. The two Avid readers had 13 instances where I coded their interview responses with intrinsic motivation. When I asked the other Avid reader if grades motivated her, she said, "They don't motivate me. I read for the fun and enjoyment of it." Another student from the Avid reading profile group stated,

> My parents never really forced me to read. They said I just took a liking to it when I was younger. I mean you have to read certain books at school, but usually there is a reason we read them and usually they are good books and that's the reason why I usually like the reading we have to do at school.

Conversely, the three Averse readers had a combined total of three times where their answers were coded intrinsic motivation. Instead, they were more likely to talk about avoidant reading behavior. Averse readers had 13 avoidant reading behavior codes while the Avid readers had two instances where they described avoidant reading behavior. When I asked an Averse reader how he approaches difficult reading he said,

> A lot of times I just don't want to do it . . . and sometimes I don't even open the book and I just listen to it and sometimes like I have to read it but I don't want to. Like if I don't want to, I'll read it but I will forget all of what it said.

Another Averse reader said, "Last year I tried everything not to read just because in my English class I had no idea what it was she was talking about."

Supporting prior research in motivation, students were also extrinsically motivated by rewards and punishments; however, rewards and punishments were least important to students in the Avid profile and those students with no intervention (Logan

et al., 2011). In contrast, rewards such as grades were more important to the Averse readers and those students who had intervention in eighth or ninth grade. A student with the Averse reading profile who had been in an intervention stated, “I do a lot of the school work . . . just to get it done and just to keep my parents from getting on my back.”

By analyzing intrinsic motivation and avoidance by intervention status rather than reading profile, intrinsic motivation was more pronounced for students who did not have intervention in ninth grade compared to students who did have intervention in ninth grade. A non-intervention student described his reading behavior as, “I like to learn. I like to think about things. So I'll read things that are thought inducing things . . .” while a student who had been in intervention stated, “. . . there is nothing that really motivates me to read.”

Changes in Reading Motivation

As mentioned in the previous section, I asked students to identify which reading profile they thought most fit them now. As a follow-up question, I asked student if they would have chosen the same profile for themselves if they were in first or second grade or when they were first learning to read. Contrary to prior research findings that reading motivation declines as students move from elementary to secondary school, more than half the students I interviewed, regardless of intervention status or reading profile, described themselves as being less motivated to read when they were younger compared to how they felt when I interviewed them. Students from each profile group placed themselves as averse or apathetic in elementary school. An Avid reader explained why she chose the Apathetic reading motivation profile when she was younger,

> . . . because I didn't like reading when I was younger . . . I wasn't really good at reading that was probably why. I had trouble learning how to write when I was

> younger too. I have horrible handwriting now, but I can write. But I had trouble being a fluent reader; I was at the bottom of my class all the time and now I'm at the top.

One of the students in the Apathetic reading profile explained why he was an Averse reader in elementary school:

> Well because I am bilingual so reading was really difficult for me. I couldn't understand some of the words because some of the words would be similar but then they, like, in Spanish they would mean something completely different. So I would hate it because I would get so confused between some of the words.

When I asked the same student how this changed when he went to middle school, he said, "In middle school I had a teacher who really started giving me books that, like, interested me. And she would be like 'you should read this book. This book seems to me like you would really enjoy it.'" This student's explanation supports the finding that I discuss later about positive teacher relationships and instruction.

One student described the different structure of elementary compared to middle school as a reason why he identified himself as an Apathetic reader in elementary school:

> . . . actually my grades weren't really good in elementary school just because it was all same teacher same thing, but when I went to middle school and when I got to change classes and have different teachers. I could tell which teachers were helping me a lot and which teachers weren't. So I actually started to get really good grades through middle school and I started to read more because I liked how the classes changed.

When I examined these findings through the lens of intervention status, two of the seven students in the intervention group said they did not experience any change in their reading motivation from elementary to secondary. The other five students each described their reading motivation as increasing as they moved into middle and high school. Of the four students who were not in intervention, one student did not experience a change in reading motivation profile, two students said reading motivation increased in middle and high school, and one student said that reading motivation decreased in middle and high

school. One student, who was not in intervention, identified himself as fitting the Averse reading profile while in the later grades of elementary school, said that when he was in middle and high school he fit more in the Ambivalent profile. When I asked what changed from elementary to middle he said, “Seeing other kids in my class reading books from the school library and like actually not being the weird one for reading all the time.” Another student who did not have intervention felt like he fit the Avid reading profile when he was learning to read talked about the curiosity and excitement of learning to read when he was younger, but as a current high school student described how he saw himself as a tenth grader, “I think I'd be an apathetic reader because I don't really like reading texts, some of the texts, because they don't interest me.”

School Engagement

My quantitative findings for the variable of disengagement on the MES revealed that in the spring of ninth grade, among students who did not receive intervention in eighth grade, those who were in ninth grade intervention had lower disengagement than those who were not in ninth grade intervention (i.e., no intervention in either year; $M = 31.577$ compared to $M = 39.900$, $p = .042$). Because those results were unexpected, I revised my interview protocol to include a question where I asked students who had intervention in ninth grade if the teacher or class affected their feelings about school and to explain how. Both the students whom I interviewed from the ninth grade only intervention group said the class did impact their feelings about school. As one girl described:

> She kind of helped me like feel better about school because being a little freshman into a new school and having this one teacher who is fun and gets you excited about coming to school and having a great time can kind of feel like “Hey, I feel better about this place now. It's not totally a prison.”

The other student described how his grades improved,

> I feel like my grades went up a lot because it was like she always said if you had homework or something that you can do that in here and I will help you, so just felt like an extra boost because also the class was so small. There was only like 10 kids in there, so it was a small class.

Another student who had intervention both in eighth and ninth grade said, "The class is keeping me in school. Just the fact that it helped me stay proficient in my work." These findings support the quantitative findings and add plausible explanation as to why students in ninth grade intervention may have had lower disengagement in the spring of their ninth grade year.

Text Choice

In addition to students' perceptions of themselves as readers, they identified barriers to reading motivation and factors that increased their motivation to read. Eight students, from all profiles and intervention status, mentioned lack of text choice as a barrier. To illustrate, when I asked, "What makes you not want to read?" one student responded by explaining, "When it's mandatory. It just kills the book. The book could be super good and it's just like a buzzkill. It's not as much fun as just reading it just for the joy of it." Another student explained how she struggled finishing one reading assignment for class, but during the same time finished three books on her own.

> Because I am not really into like all the school-related stuff. It took me almost the whole semester just to read this little packet for one class and then when I wasn't reading that I was reading three different books and finished them all . . .

The lack of text choice was more salient for students who were in a reading intervention. When talking about an intervention class where the students were able to choose their books, an Averse reader who had intervention shared, "It was just, it was a lot more fun to read because I didn't have to read what the teacher said I had to read. I got to pick."

Additionally, when asked about what advice they had for schools and teachers for motivating students to read, all but one student advised that schools and teachers offer students more choice and relevancy with text selection in high school. A student in the Averse reading profile explained, "Start getting feedback from the kids asking what they want to read instead of just picking a book that, ya know, that we have to go by, at the same time." One student suggested different genres:

> Maybe introduce new genres. I think the school recommends you to read books like *Catcher in the Rye* and *Speak* but I think you need to give kids books that they actually will like to read because I like *Catcher and the Rye* and stuff but most people in my class didn't so I think you need to take on a one-on-one basis of how what genre kids like to read and why they like to read or taking into account why they don't like to read and you try to fix that.

Teacher Relationship and Instruction

In my literature review, I highlighted Wigfield's (1997) dimensions of reading motivation (see Table 1). One of the dimensions of reading motivation is the social aspect of reading. Although a few students talked about their friends or family influencing their reading motivation, the majority of students discussed their previous and current teachers. In my interviews, teacher instruction and relationship, whether it was positive or negative, influenced almost all students' reading motivation and engagement, but especially those in the Averse reading profile and those who had an intervention class. For example, a student in the Averse reading profile and in the invention group clearly described how his intervention teacher and his English teacher influenced his feelings about reading in different ways:

> Well if anything she'd [ninth grade intervention teacher] be the one to make me like it [reading]. Because I didn't like it in middle school, liked it freshman year, and didn't like it this year. She was the only reading teacher I had . . . I did also like my English teacher last year a lot. He made it really interesting . . . it's a lot to do with the teacher for me I feel like. He made it interesting. He was funny, and he was like a cool understanding guy and like it made me *want* to do the work. I

> passed all semesters with him and it was just like it was more fun. He got everyone involved in everything. Like if there were kids sitting in the corner, he would get them to do something and it just like kind of made it fun.

The same student went on to describe his current English teacher and the low expectations the teacher had for students: “The teacher now . . . he seems, it’s not like he doesn’t care, but like he's really strange like he's scared to tell you to do something honestly.” Additionally, a student in the Ambivalent reading profile who was not in intervention also contrasted her teacher from the current year and the one from her freshman year:

> Last year, I was just really confused most of the time. She [freshman year English teacher] didn't push us to finish the book. Like with Ms. O [current English teacher] she always says “finish it because the ending is so good and don't read the last page,” cause that's what I do. I didn't fail that class [freshman year English class], I got a C and that's not like me I'm good in English so I didn't understand why. It was her teaching. I know it was her teaching.

Several students talked about instructional methods that teachers used that either were a barrier to motivation or increased reading motivation. When discussing barriers to their reading motivation, one Avid reader explained,

> I want to get the questions out of the way so I'm not killing the book because it's a really good book, but he always gives us like huge packets full of questions and it's just overanalyzing the book to where it's killing a really good book.

In contrast, there were instances where students talked about ways their teacher increased their reading motivation. An Averse reader who had been in intervention shared that the required reading with the ninth grade intervention teacher impacted his motivation to read: “Just the fact that we read every day and I kind of got used to it.” Another Avid reader said,

> I really like my English teacher now. She like gives you the background of the book like the background of the author. She'll tell you when the author's born and why they wrote the book and she'll partner you up with people so you can talk to each other about reading. And there's no reading log. She's like, “Read the book.”

Students' perception of their relationship with the teacher and the instructional moves a teacher makes was cited by almost all students interviewed as either a barrier or a booster to motivation.

Informational Text

One of the factors for ninth grade academic failure I discussed in my literature review was the lack of preparedness from students for the demands of extensive content reading in high school. When I asked students about the most challenging reading they encountered in high school, students from all profiles and intervention status reported that informational discipline-specific texts such as history, science, and math were their most challenging readings. One student illuminated this by describing history reading, "History. Mostly the phrasing in the textbooks is a little outdated and also the information put out like it's at a higher level." Other students shared that biology was most challenging due to the amount of challenging vocabulary they encountered in those texts.

The next chapter discusses implications of the quantitative and qualitative findings. The convergence of the two methods also serves to inform interpretations and new hypotheses that would best be investigated in future research.

CHAPTER V

DISCUSSION

The current study used a mixed methods approach to explore patterns in reading performance, reading motivation and school engagement in eighth and ninth grade and how those patterns may be associated with participation in a reading intervention course in eighth and ninth grade. Based on previous research, specifically reading motivation and school engagement for adolescents, I expected to see a decline in these areas over time as students moved from middle school to high school (Biancarosa & Snow, 2004; Gottfried, Fleming, & Gottfried, 2001; Guthrie & Davis, 2003). Although time-related trends in my study did have some of the expected effects, this was not always true. Other researchers have also found these contrary results (Gottfried et al., 2001; Wolters et al., 2013). Of particular note were the unexpected findings specifically observed with students who had only one year of intervention in the ninth grade. Research findings have demonstrated an increased disengagement and decreased motivation for students who struggle with reading (Guthrie & Davis, 2003; Wolters et al., 2013). However, my quantitative data and qualitative data did not support a relationship between intervention in ninth grade and increased disengagement. These findings are discussed in the following sections.

Reading Motivation and School Engagement Over Time

When examining student survey data on reading motivation and school engagement for three points in time, several significant patterns emerged. Results of the study indicated that many of the measured aspects of reading motivation and school engagement rose or fell over time. Specifically, for reading self-efficacy, self-belief,

persistence, learning focus, valuing, and task management, time was the only significant predictor of scores and scores decreased on average from fall of eighth grade to spring of ninth grade. Thus, regardless of intervention status in eighth and ninth grade, students demonstrated declining sense of self-efficacy in reading and engagement in school as they transitioned through their eighth and ninth grade years. These findings echo previous research citing a decline in motivation as students move through the grades and progress through secondary schools (Biancarosa & Snow, 2004; Eccles et al., 1993; Gottfried et al., 2001; Guthrie & Davis, 2003).

Meanwhile, perceived difficulty, a negative aspect of reading motivation, showed the opposite trend, increasing from the fall of eighth grade to the spring of ninth grade. Perceived difficulty may have increased in that first year of high school due to the challenge of the transition to high school where discipline-specific courses requires extensive content reading (Alexander & Fox, 2010; Allensworth & Easton, 2007; Cantrell et al., 2014; Kelley & Decker, 2009; Neild, 2009). Furthermore, my qualitative interviews complemented this finding in that more than half of the students interviewed identified their high school content courses as having the most challenging texts. One student I interviewed described his feelings about science texts, "I don't really like science. Like all the words they are intertwined so it's just like this is really boring." Another factor that may have contributed to perceived difficulty was when students did not find class texts to be relevant to their lives or they did not have enough background knowledge. A student described a reading assignment for biology: "I just couldn't get into it. It wasn't like something that like I could relate to at all and like I couldn't like any connection to anything I know about it." Several students also mentioned the difficulty of

assigned literary texts in their English classes they perceived as being too difficult. For instance, in addition to citing the difficulty of reading Shakespeare, several students noted their frustration with assigned classic texts. One student explained, "*To Kill a Mockingbird,* I could not get into it at all and it was really difficult and I ended up just Sparknoting it" Thus, the increasing perception of reading as difficult may have at least some basis in the shift in texts that students are asked to read in high school as opposed to middle school. Warren et al. (2011) confirmed this finding in interviews with ninth grade teachers who reported that students come to high school unprepared for the strong disciplinary focus in high school courses.

Interestingly, other negatively scaled variables, such as avoidance, disengagement, failure avoidance, and self-sabotage, did not show a similar pattern, at least not on average (i.e., across all students regardless of intervention status). This finding is not consistent with the general trend in research that cites decreasing positive aspects of motivation and engagement and corresponding increasing negative aspects of motivation and engagement over time (Guthrie & Davis, 2003). However, it is consistent with the findings in my qualitative interviews. Many of the students I interviewed discussed how their reading motivation increased when they moved into middle and high school. When I asked which profile fit them currently and compared it to where they put themselves when they were first learning to read, I was surprised to hear them talk about their early reading experiences as less positive. Students from each profile group placed themselves in the Averse or Apathetic profile in elementary school. One student explained, "One thing I remember is that in elementary school everything was tied into reading so I did not like how everything had to do something with reading." This made

me wonder if the laser-like focus on reading in elementary makes struggling readers stand out more than when they are in middle or high school, and how this may influence a young student's perception of themselves and in turn influence their reading motivation. If a student is labeled a struggling reader in elementary school most students know because students are placed into reading groups or pulled out for intervention whereas in middle and high school it is easier to hide reading struggles due to the intervention happening as a class period rather than during a specific class. Another possibility is the influence of instruction in elementary school where the students are with one teacher for most of their day. Some students mentioned that they liked moving to secondary where they were able to change classes every period. It is also important to keep in mind that the students I interviewed were trying to remember themselves as an elementary reader, and their perception may or may not have been an accurate description of how they actually felt about reading at that age. In order to fully explore this finding, more research is needed to longitudinally track students' reading motivation and school engagement.

Also although no causal conclusions can be drawn, the student interviews suggested that teacher instruction and relationship might have mitigated any potential disengagement for students in their first year of high school. For instance, when I asked a student what gets her engaged she said, "It's my teacher. She is really awesome. I really like her. She makes us really committed and that's good." Another student described the support he felt in one of his classes, "The class is keeping me in school. Just the fact that it's helping me stay proficient in my work." This theme of having positive instruction and positive relationship with the teacher surfaced throughout the interviews and may be

related to the trend of not seeing these negative aspects of reading motivation and school engagement increase as students transition to high school. The importance of teacher relationship as a way to bolster school engagement is supported by prior school engagement research (Goodenow, 1993; Roorda, Koomen, Spilt, & Oort, 2011; Ryan & Patrick, 2001).

A few variables did not have any significant relationship with time. Reading avoidance was the one variable on the RMS that did not show a significant change over time for any group of students. For school engagement, planning and anxiety both did not show an effect of time. Planning ahead for assignments and projects is positively related to school engagement, so not seeing a decrease in planning over time is promising. For anxiety, students reported their level of worry or nervousness when thinking about schoolwork. Anxiety was the only variable that was found to have no effects or interactions. Thus, not only did anxiety stay relatively stable over time, but also it was not significantly different between groups of students. This was thought provoking in that Bandura (1997) proposed that anxiety may lead to a lower sense of self-efficacy. Yet, anxiety stayed stable while self-efficacy decreased over time. One possible explanation of this finding may be related to the way the questions were posed or it could be that anxiety is more individualized and that individual students with higher or lower anxiety may be members of each of the groups studied.

Many of the other dimensions of motivation and engagement demonstrated relationships with time, but these depended on intervention status in complex ways. Thus, they are discussed individually in the following sections.

Positive Reading Motivation and School Engagement Attributes

Both the RMS and the MES examined variables that are positive or affirming attributes to reading motivation and engagement. Self-efficacy and intrinsic motivation were two of the variables included in Guthrie et al.'s (2009) affirming motivations. As mentioned in the previous section, self-efficacy decreased over time for all students. In addition, to the general effect of time, self-efficacy scores were also associated with eighth grade intervention status. Students who received intervention in eighth grade reported lower self-efficacy in general than those who did not receive intervention. This relationship did not change over time or depend on intervention status in ninth grade.

The findings for eighth grade intervention status complements previous research findings on self-efficacy with secondary students in that those who were confident, proficient readers reported higher levels of self-efficacy, while adolescents with less confidence and weaker reading comprehension were more likely to express lower levels of self-efficacy (Goodenow, 1993; Ryan & Patrick, 2001). However, it does not explain why these same results were not observed for ninth grade intervention.

Intrinsic motivation was the second affirming motivation indicated by Guthrie et al. (2009) and analyzed in the current study. Time was significantly associated with intrinsic motivation, but the relationship depended on ninth grade intervention status. Students in ninth grade intervention reported higher intrinsic motivation in the fall of eighth grade compared to spring of eighth grade. Their intrinsic motivation at the end of eighth grade was also lower than students who did not go on to ninth grade intervention. It is possible that the ninth grade intervention class halted what may have been a continued decrease in intrinsic motivation. On the other hand, it may reflect the quality of

instruction in the eighth grade intervention class and the possibility that it did not motivate these students. Previous research has found that school curriculum can influence intrinsic motivation for adolescent students (Gottfried et al., 2001). Another possible contributing factor to this finding is that students from the ninth grade intervention group that I interviewed indicated they were able to choose their texts in the reading intervention class based on their interests and they had time to read each class period. Past research indicates the positive contribution of intrinsic motivation on reading behaviors and achievement (Logan et al., 2011; Schiefele et al., 2012). Time and choice have both been cited as being important to adolescent readers and may be associated with their level of reading motivation (Bintz, 1993; Ivey & Broaddus, 2001; Lenters, 2006). More research testing these possibilities is needed to better understand these results.

As discussed earlier all of the positive school engagement factors with the exception of planning (self-belief, persistence, learning focus, valuing, and task management), decreased over time for the general population regardless of intervention status. Although planning did not change significantly over time, there was a significant interaction between eighth and ninth grade intervention status, an interaction that was also observed for learning focus and valuing.

Within the group of eighth grade students who did not have intervention, students reported higher levels of planning if they had a ninth grade intervention class as compared to the students who did not have a ninth grade intervention class. This finding demonstrates a relationship between students in the ninth grade intervention course and a positive school engagement variable. A sample planning statement from the MES is: "Before I start a project, I plan out how I am going to do it." The qualitative data where

students describe feeling supported in other subject areas in their ninth grade intervention class corroborates this finding and suggests it may have been a direct effect of the nature of instruction in this class. The students I interviewed who were in the ninth grade intervention class talked about the class and teacher being supportive of school beyond isolated reading skills. For instance, one student commented that the teacher "kind of helped me like feel better about school 'cause like being a little freshman like into a new school and having this one teacher who is like fun and gets you excited about coming to school." Another student said, "I feel like my grades went up a lot because it was like she always said if you had homework or something that you can do that in here and I will help you." Thus, this teacher may have focused on skills such as planning or other engagement strategies with her ninth intervention group and this may have contributed to this interaction of intervention status.

The interaction of eighth and ninth grade intervention functioned differently for learning focus and valuing. For students who were in ninth grade intervention, learning focus and valuing were greater for those who did not participate in eighth grade intervention than those who did participate in eighth grade intervention. Learning focus is being focused on understanding and solving problems; valuing is when students find relevancy and value to what they are learning in school. Hence two years of intervention may have contributed to students reporting lower means for these two positive engagement attributes. Previous research supports that history of poor performance in reading may decrease positive engagement factors (Chapman & Tunmer, 1995; Klauda et al., 2012; Lenters, 2006; Wolters et al., 2013). One student interviewed, who experienced multiple years of intervention, explained his lack of engagement in this way:

"My IEP specialist would harp on me and tell me to keep reading and keep reading and I got overwhelmed and would not want to read." This student did not find value in what he was learning and his history of poor reading performance and intervention may be related to less valuing and learning focus than students with only one year of intervention.

Negative Reading Motivation and School Engagement Attributes

In contrast to the positive reading motivation and school engagement attributes, several attributes undermine reading motivation and school engagement. Two attributes that have been found to undermine reading motivation specifically are perceived difficulty and avoidance (Guthrie et al., 2009). As mentioned earlier, avoidance did not change significantly over time whereas perceived difficulty did change over time. In addition to these general longitudinal trends, which applied regardless of intervention status, intervention status itself was associated with patterns in students' reported perceived difficulty and avoidance of reading. Students in intervention during eighth grade and students in intervention during ninth grade reported higher perceived difficulty of reading regardless of time compared with their peers who were not in an intervention class.

For avoidance, only eighth grade intervention was associated with higher avoidance compared to students not in eighth grade intervention. In other words, students who had intervention in eighth grade reported feeling more perceived difficulty and more avoidant than non-intervention peers, whereas those who had intervention in ninth grade only reported more perceived difficulty compared to non-intervention peers. Considering that students were placed in intervention based on their reading comprehension scores, it is logical that these students who struggle with reading may perceive reading as being

difficult. However, it is noteworthy that ninth grade intervention students did not report greater avoidance than their non-intervention peers. A possible explanation of this finding was illuminated in the interviews. Students who had ninth grade intervention, reported that they felt supported by their reading intervention teacher, benefited from the small class size, and were given time in class to be supported in their work. Thus, even though they perceived reading as difficult, they may have been less avoidant due to the support they received. Additionally, students indicated that they were able to select their texts based on interest in their ninth grade reading intervention course. Being given choice in reading may also have made these students less avoidant than they might otherwise have been. This interpretation is supported by previous research regarding students' authentic reading experiences and the importance of being able to choose texts that are relevant to their lives, which made them less avoidant of reading (Bintz, 1993; Ivey & Broaddus, 2001; Moje et al., 2008).

For negative school engagement factors, students in eighth grade intervention reported having more uncertain control and self-sabotage compared to students not in an intervention in eighth grade. Uncertain control is described as students not feeling in control of academic outcomes while self-sabotage is when students engage in activities that limit their success. Wolters et al. found that when students have perceived control over their reading outcomes, they exhibit higher comprehension. Students who were assigned to an eighth grade intervention may have felt less in control of their reading success due to being placed in an eighth grade intervention and they may have in fact become more disengaged when they felt this lack of control. For students who struggle

with reading this outcome was expected; however it was unexpected that this same finding was not observed for students who had ninth grade intervention.

Disengagement and Failure Avoidance

Both disengagement and failure avoidance, two negative aspects of school engagement, revealed complex relationships with time and intervention status. Differences over time in disengagement and failure avoidance depended on intervention status in both eighth and ninth grades. Whereas effects of time and intervention existed for other dimensions of motivation and engagement, they generally did not depend on intervention status. But for these two negative dimensions of engagement, the pattern over time depended very much on whether students experienced intervention in both eighth and ninth grade. To some extent, such a complicated pattern should be expected because if motivation and engagement decrease in general over time and intervention is also associated with poorer motivation and engagement, it is plausible that intervention might accelerate the effect of time. That is, it seems natural to assume that students in intervention, and particularly those who had intervention in both years, might show steeper declines in motivation and engagement. In fact, that is not what was found for the majority of the MESs. Moreover, for the failure avoidance and disengagement, the interplay of intervention status with time was not nearly so straightforward as expected.

Similar to the trends seen with other negative school engagement factors, students who did not have intervention either year reported increased disengagement at the end of their eighth and ninth grade year compared to when they began eighth grade. This was also true for the students who had two years of intervention; they had higher disengagement at the end of their freshman year than when they began eighth grade.

Conversely, for students who only had the ninth grade intervention, lower failure avoidance was reported at the end of their freshman year compared to both times they took the survey in eighth grade.

In addition students with two years of intervention reported higher disengagement and failure avoidance in the spring of ninth grade than student show only had intervention in ninth grade. Thus, the relationship of ninth grade intervention with these negative engagement indicators at the end of ninth grade depended on whether students had experienced intervention in eighth grade, and the finding is in the expected direction (i.e., more intervention yields poorer engagement outcomes). Meanwhile, for the group of students who did not experience eighth grade intervention, their levels of failure avoidance and disengagement depended on whether they experienced ninth grade intervention, with those who did not receive intervention actually reporting higher levels of these negative engagement factors than those who did receive intervention. This finding is opposite of what might be expected based on prior research.

This relationship between ninth grade intervention and lower disengagement and failure avoidance could be due to a number of factors such as when the students took the survey or how they understood the questions. However, the qualitative data highlighted the impact of the teacher both in the relationship with the students and the instruction provided. The relationship between students and teachers has been supported in previous research. For example, in a study examining Teacher Student Relationships (TSR) with adolescents, Roorda et al. (2011) found that "affective TSRs remained important, or were even more influential, for older students, even into late adolescence. Overall, TSRs were more important for children who were academically at risk " (p. 520). Nonetheless, the

effect of ninth grade intervention also depended on whether students had intervention in eighth grade. Those for whom intervention was not a new experience did report higher levels of negative engagement. Thus, while the power of and effective teacher seems apparent in the current findings, the limitations of what a teacher can do relative to a student's educational history must also be taken into consideration.

Reading Motivation Profiles

Although previous research on reading motivation (Bintz, 1993) suggested the majority of students without intervention should fit a positive reading profile (i.e., Avid) and that intervention students should fit a negative reading profile (i.e., Averse), findings from the current study run contrary to these expectations. Observed differences in the numbers of students fitting particular profiles were not statistically significant. Thus, intervention status was not reliably related to reader type.

The current study further expanded on our understanding of reading motivation not only by using survey data, but also by asking student to self-identify with a reading motivation profile and interviewing students about their attitudes and feelings about reading and school. The triangulation of these data sources revealed that students' answers to the open-ended interview questions were consistent with their responses to the survey, but that when directly asked to self-identify with a reading motivation profile, the profiles infrequently matched what their survey and other interview responses. For instance, over half of the 11 interviewed students chose the Ambivalent profile as best fitting them; yet only 12 students out of the entire sample fell into the Ambivalent profile via my quantitative analysis. Many of the interviewees saw themselves as readers who were motivated to read texts that interested them, but not necessarily school texts. This

finding was echoed in previous research with adolescent readers (Bintz, 1993; Lenters, 2006; Moje et al., 2008; Pitcher et al., 2007).

Also, all the students who were in the Averse profile chose Apathetic as the profile that best fit, and only 1 of the 11 students identified himself Averse. The latter student presented as Ambivalent based on his survey and interview responses. These results suggest that students may not be the best informants regarding the type of reader they are, at least when asked directly. However, the results may also have been influenced by my description of the reader types. The Apathetic reader description in my interview protocol describes the reader as wanting to maintain Cs for grades. This was the only profile description that specifically mentioned grades. Several students revealed that grades were an important motivator for them and this was especially true with the Averse readers who were more motivated by extrinsic rewards such as grades. Therefore the Averse readers may have been more apt to choose Apathetic due to the mention of grades. Additionally, students may have been influenced by me as the interviewer and did not want to choose the label *Averse* because the description also stated that reading assignments are sometimes too hard for the Averse reader. Students may not have wanted to admit this to me.

Reading and Academic Performance as a Function of Reading Profile

Several studies have highlighted the positive relationship between motivation and reading achievement (Gambrell, Codling, & Palmer, 1996; Guthrie et al., 2009; Logan et al., 2011; Schiefele et al., 2012). By examining the relationship between reading profiles and reading achievement, my study further demonstrates how reading motivation predicts reading and other school outcomes. Students' assigned reading motivation profile (based

on reported intrinsic motivation and avoidance for reading) predicted reading achievement on the STAR reading assessment. When examining how students in each profile performed on a reading comprehension measurement, students in the Avid reading profile scored significantly higher compared to the students in the Averse and the Apathetic reading profiles. These results could be attributed to several factors. Student reading assessment results could be influenced by how intrinsically motivated the student was to perform well on the reading assessment. On the other hand, it could be supportive of previous findings that suggest students with high intrinsic motivation demonstrate stronger comprehension skills (Wang & Guthrie, 2004; Wigfield & Guthrie, 1997).

My results did not support that reader profiles predicted GPA, but did reveal that reader profile predicted on-track status for graduation. It is notable that a higher proportion of Ambivalent readers and those missing a profile were not on track than the three other profiles. Ambivalent readers are characterized by high intrinsic motivation and high avoidance. They enjoy reading texts that interest them, but are not motivated by grades and will even avoid school reading assignments so they can engage in reading that interests them. Hence, their grades may be impacted by this avoidance of school assignments. Students were not assigned a reading motivation profile if they were missing the RMS survey data from spring 2014. It is presumed these students were absent on the days the survey was administered. Hence this finding supports research on attendance in ninth grade as being a key factor to being on track for graduation (Allensworth & Easton, 2007).

Limitations

The most significant limitation in my study was generalizability. Since I only studied one high school that had one teacher for reading intervention generalizability of both quantitative and qualitative findings was limited. Also, although MSIP used a quasi-experimental design, in ninth grade students were not assigned to interventions in any controlled way. Therefore, causal conclusions were not possible.

Specific to the quantitative analyses, I was only able to include students with complete data. Thus, I likely excluded students with more transience than the larger population of all students (Creswell, 2014). Transience also affects the generalizability of the qualitative findings because students who had left the school could not be interviewed. For example, students who moved often or missed significant amounts of school may have been excluded; therefore, the non-random selection of students limited generalizability.

Finally, it should be taken into consideration that although I had all reader types and intervention status represented in my 11 interviews, I did not have equal representation for each combination of reader type and intervention status group. Most notably, only two Avid and two Apathetic readers were interviewed, with one intervention and one non-intervention student in each profile group. Thus, it is less likely that variability in these groups was as well represented as in the Averse and Ambivalent profiles. Nonetheless, the use of both qualitative and quantitative data (i.e., achievement tests, transcripts, surveys and interviews), enabled triangulation of both types of data; thereby adding to the credibility of interpretations and improving internal validity (Merriam, 2009).

Implications for Future Research and Practice

It is important to acknowledge the complexity of adolescent literacy especially during the transition from middle school to high school. Researchers and practitioners have yet to find consistent, powerful, and replicable ways to intervene when students enter high school without the requisite reading skills needed to be successful in classes. This study does not offer solutions to this complex issue. Instead it contributes to the body of literatures on reading intervention, reading motivation and school engagement by examining these factors together and by bringing student voices into the conversation via student surveys and interviews that probed students to share their thoughts on reading motivation and school engagement. Similar to Gambrell et al. (1996), I found the interviews complemented the self-reported surveys and provided hypotheses regarding several underlying factors in students' reading motivation and school engagement in high school. Taken together, the results of the quantitative and qualitative analysis provided insights that yield implications for practice and for future research.

Ninth grade is an especially critical year because it puts students on the trajectory either to be successful in school and graduate on time or to disengage from school and drop out (Allensworth & Easton, 2007; Neild, 2009). In Bridgeland et al.'s (2006) study of high school drop outs, the top reason given for dropping out was that classes were not interesting. Students pointed to the lack of relationships and relevancy as reasons they left school. The importance of these two factors for students was supported by the current study. A consistent theme in my interviews was the value students placed on having a teacher who cared about them and invested in the student teacher relationship. This theme

is reiterated throughout school engagement research. When students feel a sense of belonging and connect with teachers, they are more likely to have higher school engagement (Allensworth & Easton, 2007; Goodenow, 1993; Roorda et al., 2011; Walker & Greene, 2009). Almost every student interviewed talked about the teacher rather than the class content or the instructional strategies. One student shared,

> But I really like when the teachers are able to be like one-on-one with the students. Like they tell us stories about their lives and they are able to communicate with us. Like last year my teacher was really bland. . . . We didn't feel close to her. It's better when you are close to the teacher.

Additionally my study confirmed that students seek to find connection in the texts they reading (Moje et al., 2008; Pitcher et al., 2007). They look for texts that are meaningful and relevant to their lives. Contrary to my expectations that students in ninth grade intervention would be less engaged in school than their non-intervention peers, students who only had ninth grade intervention reported less disengagement after a year of intervention. Importantly, the students identified for the class may not have been students who were chronically poor readers because many had not experienced intervention in eighth grade.

The current findings suggest that to simply focus on cognitive reading skill interventions to increase text comprehension is not enough, that factors of motivation and engagement must be considered (Wang & Guthrie, 2004). It is impossible to intervene with a student who does not show up to school. Therefore, it is critical that schools consider reading motivation and school engagement as elements of literacy intervention if struggling readers are to succeed in high school. This may mean that high schools reexamine the literature that students are assigned and consider topics, characters, and themes that are relevant to their population of students. Finding students' interests and

providing choice with daily reading is another factor to take into account. Most importantly, attention should be paid to the role of the teacher and efforts to forge relationships and foster relevancy in the context of reading intervention. Based on student voices in the current study, teacher relationships with their students are at least as important as the curriculum. As a school administrator, I am the person who creates the schedule and assigns teachers to courses. Finding a teacher who is not only skilled at delivering differentiated instruction, but also who invests in positive relationships with students will be a top priority for me in the coming school year. Additionally, I will share some of the student voices from my study with our staff, so they can hear from students about what motivates them to read and to engage in school. Allowing teachers time to reflect on these findings will also be a priority.

Additionally, the current findings revealed that reading motivation and school engagement are indeed multi-faceted and that their evolution over time can be influenced for worse and for better by participation in reading intervention classes. Moreover, reading motivation was predictive of school engagement suggesting that a feedback loop exists between motivation to read and experiences of school engagement. Interventions focused on reading and reading motivation may have effects on school engagement and vice versa. Further research in these areas is needed especially for high school readers for whom reading intervention efforts have been less successful.

APPENDIX A

MES AND RMS USED WITH MSIP

Student Survey

2013-2014

This survey is for a study by the University of Oregon. We want to know your thoughts and experiences regarding school. The survey is voluntary and can be stopped at any time. Your name will not be attached to the answers. No one will know the answers came from you. If you have any questions, feel free to ask.

Filling in the survey indicates that you understand and would like to participate. Please fill in one choice per question. Thank you for your time. Your honest answers will help improve Oregon schools.

Today's Date M M / D D / Y Y

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Agree Strongly
1	2	3	4	5	6	7

PLEASE FILL IN ONE BUBBLE FOR EACH STATEMENT	Disagree Strongly						Agree Strongly
1. If I can't understand my schoolwork at first, I keep going over it until I do.	1	2	3	4	5	6	7
2. I feel very pleased with myself when I really understand what I'm taught at school.	1	2	3	4	5	6	7
3. When I study, I usually study in places where I can concentrate.	1	2	3	4	5	6	7
4. I'm able to use some of the things I learn at school in other parts of my life.	1	2	3	4	5	6	7
5. Sometimes I don't try hard at assignments so I have an excuse if I don't do so well.	1	2	3	4	5	6	7
6. When I don't do so well at school I'm often unsure how to avoid that happening again.	1	2	3	4	5	6	7
7. I feel very pleased with myself when I do well at school by working hard.	1	2	3	4	5	6	7
8. Each week I'm trying less and less.	1	2	3	4	5	6	7
9. If my homework is difficult, I keep working at it trying to figure it out.	1	2	3	4	5	6	7
10. When exams and assignments are coming up, I worry a lot.	1	2	3	4	5	6	7
11. Often the main reason I work at school is because I don't want people to think that I'm dumb.	1	2	3	4	5	6	7
12. When I get a good grade I'm often not sure how I'm going to get that grade again.	1	2	3	4	5	6	7
13. If I try hard, I believe I can do my schoolwork well.	1	2	3	4	5	6	7
14. Learning at school is important.	1	2	3	4	5	6	7
15. I don't really care about school anymore.	1	2	3	4	5	6	7
16. When I get a bad grade I'm often unsure how to avoid getting that grade again.	1	2	3	4	5	6	7
17. When I study, I usually organize my study area to help me study best.	1	2	3	4	5	6	7
18. I'm often unsure how I can avoid doing poorly at school.	1	2	3	4	5	6	7
19. I worry about failing exams and assignments.	1	2	3	4	5	6	7
20. Often the main reason I work at school is because I don't want people to think bad things about me.	1	2	3	4	5	6	7

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Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Agree Strongly
1	2	3	4	5	6	7

PLEASE FILL IN ONE BUBBLE FOR EACH STATEMENT	Disagree Strongly						Agree Strongly
21. I get it clear in my head what I'm going to do when I sit down to study.	○	○	○	○	○	○	○
22. I've pretty much given up being involved in things at school.	○	○	○	○	○	○	○
23. If I don't give up, I believe I can do difficult schoolwork.	○	○	○	○	○	○	○
24. I sometimes don't study very hard before exams so I have an excuse if I don't do so well.	○	○	○	○	○	○	○
25. I feel very pleased with myself when what I learn at school gives me a better idea of how something works.	○	○	○	○	○	○	○
26. I feel very pleased with myself when I learn new things at school.	○	○	○	○	○	○	○
27. Before I start an assignment, I plan out how I am going to do it.	○	○	○	○	○	○	○
28. When I'm taught something that doesn't make sense, I spend time to try to understand it.	○	○	○	○	○	○	○
29. I've pretty much given up being interested in school.	○	○	○	○	○	○	○
30. I try to plan things out before I start working on my homework or assignments.	○	○	○	○	○	○	○
31. Often the main reason I work at school is because I don't want to disappoint my parents.	○	○	○	○	○	○	○
32. When I study, I usually try to find a place where I can study well.	○	○	○	○	○	○	○
33. If I have enough time, I believe I can do well in my schoolwork.	○	○	○	○	○	○	○
34. What I learn at school will be useful one day.	○	○	○	○	○	○	○
35. I sometimes do things other than study the night before an exam so I have an excuse if I don't do so well.	○	○	○	○	○	○	○
36. I'll keep working at difficult schoolwork until I think I've worked it out.	○	○	○	○	○	○	○
37. When I do tests or exams I don't feel very good.	○	○	○	○	○	○	○
38. Often the main reason I work at school is because I don't want my teacher to think less of me.	○	○	○	○	○	○	○
39. I usually stick to a study timetable or study plan.	○	○	○	○	○	○	○
40. If I work hard enough, I believe I can get on top of my schoolwork.	○	○	○	○	○	○	○
41. It's important to understand what I'm taught at school.	○	○	○	○	○	○	○
42. I sometimes put assignments and study off until the last moment so I have an excuse if I don't do so well.	○	○	○	○	○	○	○
43. In terms of my schoolwork, I'd call myself a worrier.	○	○	○	○	○	○	○
44. When I study, I usually study at times when I can concentrate best.	○	○	○	○	○	○	○

From MES (Lifelong Achievement Group, 2012)

PLEASE FILL IN ONE BUBBLE FOR EACH STATEMENT	Less than high school graduation		High school graduation		Attend college
A1. How far do you think you will get in school?					

	Never	Rarely	Sometimes	Often	Always
A2. I think about dropping out of school.					
A3. I skip classes.					

	Never	Not Usually	Usually	Always
B1. Do you enjoy reading books in your free time?				
B2. Do you need extra help in reading?				
B3. Are you a good reader?				
B4. Can you figure out hard words when reading?				
B5. Do you like to read new books?				
B6. Do you guess a lot when reading so you can finish quickly?				
B7. Do you read easier books so you don't have to work as much?				
B8. Can you sound out long words?				
B9. Do you make lots of mistakes in reading?				
B10. Do you enjoy the challenge of a good book?				
B11. How often do you think, "I don't want to read this"?				
B12. Can you recognize words easily when you read?				
B13. Do you enjoy reading books even if they are hard?				
B14. Do you enjoy reading books for a long period of time?				
B15. Do you try to get out of reading books for school?				
B16. Do you wish you didn't have to read for school?				
B17. Do you read as little as possible?				
B18. Do you like it when books make you think?				

A1-A3 from SDRI (Vaughn, Roberts, Wexler, & Fall, 2013) B1-B18 from RMS (Guthrie et al., 2009)

APPENDIX B

STUDENT INTERVIEW PROTOCOL

Reading Motivation Interview Protocol for High School Students

Part I (filled in prior to the interview)

Student Name: _____

_____Date of interview_____Time of interview

Part II

Statement of Purpose: Hello. My name is Alexa Pearson and I work in the Teaching and Learning Department in this school district. I am also a student at the University of Oregon working on my doctoral degree. You might remember taking a survey last year with your class that asked you about your feelings about reading. I am now following up on that survey by interviewing some students, so that I can learn more about how you feel about reading and your experiences with reading in eighth and ninth grade.

Would it be okay with you if I used the information we talk about in my study? This is completely voluntary and you may say no if you do not want this information used in the study. If you agree and we start talking and you decide you no longer want to do this, we can stop at any time. I will not identify you or use any information that would make it possible for anyone to identify you in any presentation or written reports about this study.

I would like to record our interview so I can capture what you say accurately. If it is okay with you, I might want to use direct quotes from you, but these would only be cited in general terms such as "Student One." There is no expected risk to you for participating in this study, and anything you tell me will not affect your grades or your classes. The benefit of participating will be to help me learn so that I can plan programs that will support students in our district and for me to understand more about adolescent reading. If you want to stop the interview at any point, then let me know, and we can stop at any time. Are you okay with helping me with this study? If so, please sign the assent form. (Give student the assent form to sign).

Remember you can stop the interview at any time.

Part III

Questions

I'm going to start by gathering some background about your school experiences as a reader. I am going to begin by having you think about your experiences with reading. Before we start, would you like to choose a pseudonym? This is a name that I will use to identify you in my research instead of "Student One."

Student Chosen Pseudonym: _____

1. Tell me about the kinds of things you read most days? **(ERB) (ARB)**

   Follow-up:
   a. What if I told you to include text messages, websites, comic books, newspapers and things like that?

2. What gets you motivated to read? At home? At school? **(SA; SE; PD)**

   Follow-ups (omit if covered in original answer):
   a. How much do people influence what you read or how much you read? Like your teachers, friends, parents? **(SA)**

   b. How much does interest or curiosity motivate you to read? Like wanting to know more about a topic or interest in a particular author? **(IM)**

   c. How much do rewards or penalties motivate you to read? For example, grades, points, or awards? **(EM)**

3. What makes you *not* want to read? **(SA; SE; PD)**

   Follow-ups (omit if covered in original answer):
   a. How much do people influence you not wanting to read? Like your teachers, friends, parents? **(SA)**

   b. What things get in the way of your reading? How much does the topic matter? How much does the format or medium matter (book vs. computer vs. phone vs. etc.)? How much does the time involved matter? Consequences? **(PD; SE; SA)**

4. I am going to describe four kinds of readers and I'd like you to tell me which one is most similar to you. **(ARB, ERB, IM, EM, PD, SE)**

   Share four reading motivation profiles (on last page of interview protocol) that describe different kinds of readers. (Give interviewee a copy of the gender-matched profile descriptions and read each description).

   Which profile best matches how you see yourself as a reader? Explain why you chose that profile.

5. Do you think if I were to have interviewed you when you were in first grade you would have the same profile? Explain. **(IM, EM, PD,II, SA, SE)**

   Follow-ups:
   a. If you cannot remember how you felt in first grade, just think back as far as you *can* remember. What would your profile have been then?

   b. How have your feelings about reading changed since you were in elementary and middle school?

   c. Why do you think they changed?

6. What are some reading lessons or activities teachers have done or had you do in the classroom that you really liked? **(II, SA, EM, IM)**

   Follow-ups:
   a. What was something that you really enjoyed or got you excited or ended up being more fun than you thought it would?

   b. It could be something a teacher did a long time ago, even in first or second grade.

   c. Tell me about how that experience influenced your reading?
      i. How did it affect your feelings about reading overall?

      ii. How did it affect your reading ability?

7. What are some reading lessons, activities, or situations that you didn't like? **(II, SA, EM, PD)**

Follow-ups:

a. What was something that you really hated or got you mad or ended up being more boring than you thought it would?

b. It could be something a teacher did a long time ago, even in first or second grade.

c. Tell me about how that experience influenced your reading.
    i. How did it affect your feelings about reading overall?

    ii. How did it affect your reading ability?

8. Were you in a reading class that specifically focused on improving reading skills during ninth grade?

   If no, move to question 9.
   If yes, describe how you felt about being in the class? **(SA, SE, II, PD)**

   Follow-ups:

   a. Did the teacher or class affect your reading? If so, how?
      a. Do you feel like the class helped your reading skills?
      b. How did you know? What makes you say that? **(SE, II)**
      c. Why do you think it/she helped (or didn't)?

   b. Did the teacher or class affect how you feel about reading? If so, how?

      1) Did it affect your confidence about yourself as a reader? **(SE)**

      2) How did the class influence your motivation/willingness to read? **(IM, EM, SE, II)**

      3) Why do you think it/she affected your feelings (or didn't)?

   c. Did the teacher or class affect your feelings about school? If so, how?

9. What is the most challenging reading you do in high school? **(PD)**

Follow Up:

a. What do you do when you when you have to do this kind of reading? For instance, how do you approach a reading that's difficult? **(SE, ARB, ERB, PD)**

b. What is your advice for teachers or your school to help students improve their skills with this kind of reading? **(II)**

c. What is your advice for teachers or your school on how to get students motivated to read more? **(II)**

Thank you for participating in this interview.

Question 2 adapted from Ivey and Broadus (2001); Question 6 adapted from Pitcher et al., (2007).

ERB = Engaged Reading Behaviors
ARB = Avoidant Reading Behaviors
EM = Extrinsic Motivation
IM = Intrinsic Motivation
SA = Social Aspects
SE = Self Efficacy
PD = Perceived Difficulty
II = Influence of Instruction

Probes to be used throughout interview if student needs prompting:

- *Tell me more…*
- *Can you give an example?*
- *Describe that for me…*
- *What else can you tell me about…?*
- *Can you clarify…?*

Four Kinds of Readers (Boy Version)

Averse	Avid
Avery is an averse reader. He does not like when he has reading homework and he finds any excuse not to read. Sometimes his reading assignments are too hard for him. In his spare time, Avery does not choose to read. Avery is an averse reader. Averse readers do not enjoy reading for school or at home. Reading may be difficult for them. They often avoid reading and reading assignments when possible.	*Alex has reading interests and enjoys reading both in and out of school. When he is given a reading assignment, he is committed to finishing it because he wants to learn more.* Alex is an avid reader. Avid readers enjoy reading at home and at school. When they get a reading assignment, they are dedicated to finishing it because they want to do well on it and learn from it.
Apathetic	**Ambivalent**
Andrew usually does most of his reading assignments because he wants to make sure his grades stay above Cs. He also doesn't want to get in trouble with his parents. If he knows a reading assignment won't be graded, then he won't do it. Andrew is an apathetic reader. Apathetic readers do not really enjoy reading, but will do a reading assignment or read a book if there is a reward at the end. For example, they will read something for school because they want to get a good grade or because they do not want to get in trouble at home.	*Ambrose is reads a lot, but it's not always school reading. Ambrose often gets home from school and starts reading blogs, emails, Twitter, and other internet stories. He also has a book series that he's been into for a while and reads that instead of doing his homework.* Ambrose is an ambivalent reader. Ambivalent readers enjoy reading books that they are interested in, but not necessarily school texts. For example, the ambivalent readers may read more at home than at school. Even though they read a lot, they do not always finish assignments or read for school.

Four Kinds of Readers (Girl Version)

Averse	Avid
Avery is an averse reader. She does not like when she has reading homework and she finds any excuse not to read. Sometimes her reading assignments are too hard for her. In her spare time, Avery does not choose to read. Avery is an averse reader. Averse readers do not enjoy reading for school or at home. Reading may be difficult for them. They often avoid reading and reading assignments when possible.	*Anna has reading interests and enjoys reading both in and out of school. When she is given a reading assignment, she is committed to finishing it because she wants to learn more.* Anna is an avid reader. Avid readers enjoy reading at home and at school. When they get a reading assignment, they are dedicated to finishing it because they want to do well on it and learn from it.
Apathetic	**Ambivalent**
April usually does most of her reading assignments because she wants to make sure her grades stay above Cs. She also doesn't want to get in trouble with her parents. If she knows a reading assignment won't be graded, then she won't do it. April is an apathetic reader. Apathetic readers do not really enjoy reading, but will do a reading assignment or read a book if there is a reward at the end. For example, they will read something for school because they want to get a good grade or because they do not want to get in trouble at home.	*Amber reads a lot, but it's not always school reading. Amber often gets home from school and starts reading blogs, emails, Twitter, and other internet stories. She also has a book series that she's been into for a while and reads that instead of doing her homework.* Amber is an ambivalent reader. Ambivalent readers enjoy reading books that they are interested in, but not necessarily school texts. For example, the ambivalent readers may read more at home than at school. Even though they read a lot, they do not always finish assignments or read for school.

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