

12-2018

# The Effects of Setting Goals on Accelerated Reader

Austin King

*Northwestern College - Orange City*

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The Effects of Setting Goals on Accelerated Reader

Austin King

Northwestern College

An Action Research Project Presented  
in Partial Fulfillment of the Requirements  
For the Degree of Master of Education

December 2018

Dr. Sara Waring-Tiedeman

**Table of Contents**

Abstract.....	3
Introduction.....	4
Review of the Literature.....	5
Methods .....	18
Participants.....	18
Data Collection.....	18
Results.....	19
Data Analysis.....	19
Discussion.....	24
Summary of Major Findings.....	24
Limitation of the Study.....	26
Further Study.....	26
Conclusion.....	27
References.....	29
Appendix.....	34

### Abstract

The purpose of this action research project was to determine if sixth grade English and language arts (ELA) and reading students' reading habits are due solely to Accelerated Reader (AR) point mandates by their classroom teachers and if by allowing them to set their own reading goals, whether or not they will be able to attain an equal or greater amount of AR points. Rather than be given a minimum number of AR points for a quarter which would then be input to the grade book, students were asked to create self-set goals based on their final fifth grade quarter totals. Along with parents, students set goals to challenge themselves and met with the teacher following the quarter to discuss their progress towards their quarter goal, amount of time spent reading outside of school, and appropriate difficulty levels of books read. Students then set AR-point goals for the second quarter as well as general independent reading goals. The researcher's hope was to see an increase in intrinsic reading motivation with the setting of their own goals and reading books based on interest rather than just maximum number of points.

*Keywords:* reading motivation, self-set goals, Accelerated Reader

### Individual Goal-Setting and its Effects on Accelerated Reader

Reluctant readers can be divided into three categories: those who can't read, don't read, and won't read (Bright, 2017). Mark Twain once said that those who don't read good books have no advantage over those who can't. The impetus for this study comes from the widespread use of the *Accelerated Reader* (AR) program and its claim to develop lifelong learners. As with many trends in education, some teachers have vocalized their doubts about the effectiveness of AR in the long-term. The researcher shares those doubts as well as doubts about the short-term usefulness.

In order to truly understand the effects of any reading program that claims to transform (Renaissance Learning, 2011) a school district within a matter of years, students should be examined over a greater length of time. Just as BPA, a cheap, easy to manufacture alternative to plastics at the time, was used in plastics for over 50 years before their adverse effects (Vogel, 2009) were uncovered, many commonly deployed practices in education are found to be detrimental after many years of use. There is a profound lack of current literature specifically examining how Accelerated Reader affects today's students. After only three years of using AR, by sixth grade, students are already tired of the drag of AR points and being kept inside from recess at the end of the quarter should their requirement not be met.

The research question is: Does goal-setting affect a sixth grade students' Accelerated Reader point accumulation total in a quarter? The hope is, by using self-set goals, encouraging self-assessment, and holding short reading conferences with them, students will be more intrinsically motivated, possibly reading material they find interesting rather than books that are statistically beneficial for their grades. The

hypothesis is that students' AR point totals will increase, or at least equal those of the previous, grade-level point requirements and that students will enjoy their reading more, knowing it's for pleasure or a personal challenge rather than a mandate.

### **Review of the Literature**

Stimulating students' reading enjoyment and interest in reading, thus increasing reading proficiency, has been a primary concern of teachers who desire equal opportunities for all students (Bright, 2017; De Naeghel, Valcke, De Meyer, Warlop, van Braak, and Ven Keer, 2014; Applegate and Applegate, 2010; Edmunds and Bauserman, 2006; Gambrell, 1996). It has evolved into one the most intensely studied factors contributing to either success or failure in early elementary school. Applegate and Applegate (2010) acknowledge the motivation of students, especially as it pertains to reading is far from a straightforward science. Researcher Jessie De Naeghel (2012, 2014) constantly analyzes extrinsic versus intrinsic motivators, trying to assist teachers in best practice, especially concerning reading motivation. Motivating students in school is still in the forefront of teachers' continued education. Studies have shown that a student's reading frequency and performance are greatly impacted by intrinsic reading motivation. A study conducted by De Naeghel et al. (2014) found that an adolescent's perceived teacher involvement (investing personal resources, expressing affection, and enjoying time with students) is the most strongly connected factor of teacher behavior with students' reading motivation, suggesting that the teacher, not autonomy or structure like Renaissance Learning's Accelerated Reader—while still important—will determine a child's reading success. Teachers seem to grasp these concepts, but have difficulty applying them to their instruction.

An earlier study conducted by De Naeghel et al. (2012) emphasized that requiring students to increase reading volume, using programs such as AR, did not bridge the known gap between intrinsic and extrinsic readers. It would make sense, then, that motivation and reading comprehension can be accounted for by reading frequency. Autonomously motivated readers are likely to invest extra time into reading (De Naeghel et al., 2012). Another troubling discovery of their study was the confirmation of reading motivation and performance discrepancies between boys and girls with girls reporting significantly higher intrinsic reading motivation (De Naeghel et al., 2012). Marinak and Gambrell's (2010) findings also support this statement, along with vastly different attitudes toward reading. Shiefele and Loweke (2017) found that intrinsic reading motivation shows positive effects only if extrinsic motivation is low. For this reason, there should be as little reward and competition tied to reading as possible.

Student views about their ability and whether they are successful readers also changes over time from elementary to middle and high school years, generally in a downward spiral (Wolters, Denton, York, & Francis, 2013). Adolescents who have struggled in their elementary years tend display lower self-esteem and increased perceptions about the difficulty of a given reading task compared to their more competent peers (Wolters et al., 2013). Thus, a major task of education would be to liberate the bold curiosity with which children enter this life (Bright, 2017). Too often teachers' methods or materials turn students into mindless readers who only do so to check off a box and move to a more pleasurable activity. This can be observed even in early grades; cause for concern within teachers. Over time, students who experience a history of poor performance or understanding are more likely to show decreased

interest in subject matter and devalue it (Wolters et al., 2013). This is important to note when students are taking AR tests but receive a reduced number of points for missing comprehension questions that require direct recall of details from a book they may have started reading weeks ago. An interesting note from the author's research was that when compared to the more proficient peers, struggling adolescent readers displayed higher levels of intrinsic motivation and higher values for reading (Wolters et al., 2013). Once students understand that struggling is acceptable, they are less reluctant and more willing to engage because of their own volition to improve (Bright, 2017). This reinforces the point that educators should be the number one fans of students, making them believe in themselves. Struggling readers are also prone to exhibit avoidance goals because of prior adoption of performance goals with lower levels of achievement (Wolters et al., 2013). This is the precise reason there is a need for the goal-setting research. Students should be able to set attainable goals for themselves to experience success.

As far as extrinsic or intrinsic motivators for reading go, the research agrees on the superiority of intrinsic motivation as far as the love of reading. However, Schaffner, Schiefele, and Ulferts (2013) do state that competition, recognition, grades, and compliance have been found to show a positive correlation with a student's reading for enjoyment. Later, though, the author acknowledges finding a negative relation between extrinsic reading motivation and reading amount as well as comprehension. They summarize that extrinsic motivation could prove detrimental to those reading outcomes. In general, they found little sound evidence in the triangular relationship between motivation, reading amount, and comprehension (Schaffner et al., 2013). This leads

many in education to question why extrinsic motivators are still in use within our schools. I believe the most likely answer is that extrinsic motivators like treats or rewards work well pro tempore, which is generally of more urgent concern to educators than how readers respond in future classes. Standardized testing pressure likely only compounds this issue. The purpose for instruction has become not the education of the child but the passing of the test (Meier & Wood, 2004).

Guthrie, Klauda, and Ho (2013) report that qualitative measures such as amount of time spent reading, observed concentration in reading tasks, and self-reported effort have all shown a strong correlation to reading achievement. Intentional teaching practices such as classroom arrangements encouraging peer interaction have been shown to support social motivation by many researchers in this literature review. Exchanging ideas and sharing expertise based on reading, student-led discussion groups and book talks, team projects like making posters, and peer conferencing with student feedback are all positively connected with reading engagement (Guthrie et al., 2013). Teachers should also emphasize autonomy, relevance to student lives, collaborative learning, and self-efficacy as they are all shown to be appropriate motivational constructs. Educators know student choice, close relationships with teachers, relevance, etc. have profound positive effects on instruction, but planning for student choice and making personal connections with difficult students proves difficult in implementation. Bright (2017) and Meier (2015) both note that when children are given responsibility for their own progress as a reader, they improved and found success. Not solely choice—which is a lifelong skill—but also responsibility for their progress can promote the intrinsic qualities this researcher desires. “Instruction that enables students

to learn to set realistic goals during reading and to evaluate their progress increases self-efficacy and achievement in reading tasks” (Guthrie et al., 2013, p. 11). The positive feedback on goal-setting forms the basis for this action research.

After extensive research on the relationship between reading motivation and reading goals, Cabral-Marquez (2015) found numerous behavioral and cognitive benefits for goal setting. First, the author found that setting goals led to improved academic performance. Next, there was less redirecting of students’ attention during independent reading time away from irrelevant tasks. Further, goal setting was found to energize and stimulate individuals who might not otherwise persist in a task as difficult as reading when a student’s self-efficacy is low. When the author refers to goal setting, she is referring to individual, personalized, self-set goals. Having a teacher tell a student their standardized test score should increase by five points is not the type of goal referred to and is not what this researcher intends to employ.

Although conventional wisdom would suggest self-set goals have a more favorable outcome within students than assigned goals, Cabral-Marquez (2015) does not see this as conclusive. She does say, whether assigned or self-set, holding short, individual conferences with students to discuss the formation of and progress towards goals is vital to successful reading goals. A large aspect of reading is the emotional connection between a reader and the book’s story. By suggesting reading conferences be held between teacher and student, the author encourages discourse on material being read which promotes the deeper-level thinking teachers hope to accomplish by simply using AR. Her conclusions reinforce the importance of this study.

Studies on the effects of AR with regards to motivation have been conducted in the past, but there is a profound lack of recently completed studies. One such study by SuHua Huang (2011) describes the need for more information on middle school students (adolescents) rather than just elementary students as much of the literature details. Huang (2011) notes that many of her students, while collecting qualitative data, described a lack of AR tests on books appropriate to their higher reading levels. The school in which her research was done did not allot time specifically for AR, making finding time to read on their own difficult due to after-school activities. Unfortunately, the requirement of AR points as a directly graded item resulted in students sharing answers on tests or searching for the test keys online with many students gaining an attitude focused on “beating” the AR system (Huang, 2011, p. 238). Upon the completion of her research, Huang (2011) found no statistical significance in reading test scores when compared to students not using the AR program (Huang, 2011). She also found tests and prizes were not motivating and book choices or personal interests were far more effective when promoting literacy development. A major drawback of a computerized system such as Accelerated Reader is that the program only offers multiple-choice, literal recall questions rather than any written response, extension activities, or repeated interaction with the text (Huang, 2011). Because of the direct recall required to gain points from an AR test, AR was not found to promote high-level thinking and reflection skills, but rather, produced students who focus on memorizing texts to pass the tests. Finally, any form of extrinsic motivator with AR might be problematic, reducing intrinsic motivation to read when the reader must pass a test to earn points for a book they read;

many students were also found to have decreased confidence in their reading because of failed (scoring less than 60%) tests (Huang, 2011).

As Huang (2011) mentioned, there is a startling lack of literature on the effects of AR on middle or high school readers. AR is used in over half the schools in the United States, making the results of AR on older children an important question to be answered (Schmidt, 2008). Instead of thinking of a good reader as someone who found pleasure and knowledge in reading, good readers have become children who read a lot of books, score high on AR comprehension tests, and accumulate an abundance of AR points (Schmidt, 2008). Reading has become more of a “job” where completion results in a specific reward or grade (Schmidt, 2008, p. 203). AR is not building a lifelong love of reading. This can be observed in my participating school as well. Fellow colleagues even label free-reading books as AR books, further brainwashing students to believe however much they enjoy AR is equivalent with their reading enjoyment. For this reason, teachers should be more mindful of their language around reading, marking the distinction between reading and the Accelerated Reader comprehension testing.

Often, independent reading is used as a form of classroom management when students return to their classrooms from specialists or recess. Reading in these scenarios is meant as way to quiet children and manage behavior, not to further knowledge or read for the fun of reading. Rather than use AR as a motivator, the author suggests read-alouds, classroom libraries with various genres, and teachers who motivate students through their instruction are essential (Schmidt, 2008). Not all AR has to offer is negative, however, with AR apparently supporting positive attitudes toward academic reading (Schmidt, 2008). Academic reading, however, is not equivalent to the

recreational reading teachers want to see happen, unprompted, outside of school. Recreational reading, a factor associated with higher reading achievement, was not supported by the use of AR (Schmidt, 2008). Teachers should be mindful, then, of what their own purpose behind requiring AR points is. If it is to increase test scores or promote the love of reading, it seems a moot point after this much research. The author concludes by reminding readers that listening to student literature discussions gives teachers access to what is truly important to every student in their classrooms (Schmidt, 2008).

There are other surprising discoveries found during research on Accelerated Reader in schools such as Pavonetti, Brimmer, and Cipielewski's (2002) findings that students at a particular school were not allowed to have discussions following silent reading times due to fears of them sharing enough for others to pass AR quizzes is particularly disheartening (Pavonetti et al., 2002). This is ridiculous. The thinking in literature and language arts is that discussion amongst peers promotes reading and interest. If AR diminishes this crucial cooperative learning, perhaps an alternative means of accountability needs to be found. In this same school, books not in the school's AR program were not allowed for recreational purposes (Pavonetti et al., 2002). While the AR program has certainly increased their library of eligible tests, directing eager readers away from books because of their lack of AR test seems ludicrous.

The purpose of these authors' study was also to challenge Accelerated Reader's claim to promote lifelong readers. Their findings did not support AR's claim (Pavonetti et al., 2002). They also found that, when used following use in elementary school, AR did

not produce more dedicated readers compared to those students not exposed to the program. In actuality, students who did not have AR in elementary school in the school districts examined were reading more than their AR-exposed peers (Pavonetti et al., 2002). Pavonetti et al. (2002) conclude that further research on the AR program is needed, with particular emphasis on reading behaviors and achievement related to school and home environment, reading ability, and motivation. The authors conclude with a statement that should bring conviction to the heart of teachers using AR in their classrooms and challenge them to justify their reasons for using it. "Few stop to consider the effects of [AR] testing on students' ability to think creatively or with curiosity, to revel in new knowledge for the pure joy of learning" (Pavonetti et al., 2002, p. 310).

Williams, Hedrick, and Tuschinski (2008) note that, "Motivating children to read on their own has been less of a priority than reading achievement in recent years" (p. 135). This is disturbingly true in the participating school as more and more emphasis is placed on standardized test scores and less value placed on the love of reading and creating motivated, lifelong readers. Classrooms are now testing-centered rather than learner-centered (Nichols, 2013). Rather than trying to motivate students to read via awards and prizes, schools should be providing students with access to interesting and exciting books (Williams et al., 2008). McGeown, Duncan, Griffiths, and Stothard (2015) suggest identifying ways to boost adolescents' reading motivation and engagement in fiction book reading as a possible pathway to improving reading attainment.

Teachers must be mindful of how their teaching practices affect students, both in the present and in the future. Some evaluative practices teachers employ contribute to

declining motivation in their students (Wigfield, Gladstone, & Turci, 2016). As all teachers do, our aim should be to encourage students in their reading and academic competence while displaying the relevance of material to their lives. When students do not believe what they are learning is relevant to their values or goals, they are less engaged (Wigfield et al., 2016). Reminding students that reading is a recreational choice, just like playing video games or playing ball are will help develop positive habits (Powell-Brown, 2006). Therein lies the struggle of reading teachers. Unlike other subjects that students may grasp after one lecture or teaching, reading will only improve with more exposure to literature.

A method of improving exposure to literature is to develop lifelong readers. One of Renaissance Learning's (2018) foremost claims is that AR users become lifelong readers. This researcher has a limited view of whether his students become lifelong readers, but the short-term effects certainly seem to suggest otherwise. Siddiqui, Gorard, and See (2015) concluded more research with a longer-term study would benefit teachers and administrators interesting in using AR. They see much of the improvement claimed by Renaissance Learning to be associated with their program to possibly be due to other interventions used by reporting schools. Because AR is shown to increase amount of time reading, the claims that AR improves reading comprehension—based on the amount of reading alone—might seem to possess validity, but in reality, this is not true. Following an intensive longitudinal study, Troyer, Kim, Hale, Wantchekon, and Armstrong (2018) found that simply increasing the amount of time spent reading is not enough to increase comprehension. With AR tests, there is no opportunity to engage with the text, which the authors say plays a role in the

relationship between reading amount and comprehension. Attention must be made to the quality of materials students read rather than just time spent between covers.

Much as Applegate and Applegate (2010) feared, the researcher worries that testing such as standardized or as used by AR that focuses on a direct recall of factual information rather than responding to questions that require deep and complex comprehension will only serve to further increase the divide between interested and less-interested readers. Applegate and Applegate (2010) found a disparity between the inclinations to think deeply about a text, not necessarily a difference in readers of the ability to do so. They even suggest that thoughtful instruction in literacy in the future readers who are lukewarm into enthusiastic ones. This should give teachers even more reason to be wary about implementing AR at young ages without knowing the full extent of its effect on how readers process. "The widespread use of programs that encourage children to recall but not think about what they read may succeed in producing sizeable numbers of children who appear technically proficient in reading...but run the risk of producing children who see no use for reading in their lives" (Applegate & Applegate, 2010, p. 233).

Due to earlier struggles or distorted views because of testing, many students (and probably teachers) have lost sense of what it means to be a reader. Meier (2015) defines a reader as "reading voluntarily, having confidence collecting, books, recommending books to others, talking about reading, knowing different authors and illustrators styles, reflecting on reading, making connections and thinking critically" (p. 21). AR appears to take the voluntary aspect of reading away as well as reduce confidence in struggling readers if they cannot gain the required number of points due to

poor direct-recall skills. The author must realize how much student perception plays a role in their reading. In order to gauge student self-perceptions in the current study, elements of this author's survey of reading perception were mimicked.

For the same reason as Meier (2015), Nichols (2013) fears the mandated use of AR—especially for a grade—will not produce strong readers like intriguing instruction that engages students. Although the threat of lost funding or sanctions have forced educators and administrators to seek programs that can deliver quick fixes for struggling students, there can be no quick fix for and reading achievement gap in standardized testing as Renaissance Learning might lead users to believe (with a misleading number of studies cited as supporting AR's positive effect on student motivation and achievement). Teachers are already restricted to teaching the contents of standardized tests, so little time remains for continued basic reading instruction. Successful readers are not produced when books must be chosen based on AR test availability. The author concludes in her 117 page dissertation that the almost \$2,500 cost for a school to adopt AR far outweighs any benefits. Nichols found that students involved in AR could not distinguish between trying to improve reading skills and accumulating AR points. Notwithstanding the sometimes-hostile environment that AR can create when students compare or compete in AR points.

Nichols (2013) found that frequent testing with AR did not have a negative effect on a students' to set and meet goals though Shiefele and Loweke (2017) say striving to attain goals are purely extrinsic. Nichols' finding is pertinent to this researchers study since goals will be set within AR, based on their own self-determined number of points. Unlike studies cited by Nichols, this researcher did not offer incentives associated with

their AR goals. However, it is difficult to employ the use of AR without attaching a grade lest some students surely drop reading altogether (and would alter too many variables for this study). It is painful to read about students being ostracized for not meeting AR goals for the year when accommodations could be developed instead to support students (Nichols, 2013). Like this researcher, Nichols found a dearth of AR studies conducted within the last 5-10 years. The lack of current data makes determining AR's effectiveness difficult for educators.

## **Methods**

### **Participants**

A total of 106 sixth grade students took part in this study. The researcher had 54 of the students in a reading/ELA class in 2017 and 52 in 2018. Students live in a generally rural district outside of Rochester, MN. All but one student in the researcher's class were familiar with the AR program, having used AR testing on books since the third grade. The participants were observed during the first quarter of the school year, lasting 40 school days both years. The 2017 data was collected from two classes consisting of 23 boys and 31 girls. The 2018 data was collected from two classes consisting of 30 boys and 22 girls. The researcher chose to collect data from the first semester of consecutive sixth grade classes so students were at an equal point in their education and identical concepts and skills were covered over the course of each quarter examined.

### **Data Collection**

At the onset of the fall semester, students were given a slip of paper with which to write their goal for AR points for the quarter (see Appendix A *figure 1*). On this slip

were included their fourth quarter fifth grade AR totals and the usual sixth grade AR requirements for reference. Students were required to attain a parent signature acknowledging their goal as being realistic and were expected to be able to assign themselves a letter grade for their independent reading portion of their ELA grade. Parents were also informed of the change to AR in-person at meet-the-teacher before the school year and via email.

Parents and students were notified of the change in AR practice during Meet the Teacher night before the school year began. Participants were told the self-assessment would include topics such as amount of time spent reading outside of school—Becker, McElvany, and Kortenbruck (2010) would label this as the best predictor in school reading achievement—, difficulty of books, and progress towards goal. Students who can discuss their reading preferences with teachers or peers during individual conferences see their desire to read increased, which further encouraged me to discuss their reading via short, individual conferences (Edmunds & Bauserman, 2006). The researcher entered student goals into the AR system so participant iPads displayed progress in the form of a horizontal bar graph whenever a test was taken. Students were allowed to take AR tests on teacher-read, guided reading books, and generally scored highly on them.

Quantitative data was collected from the researcher's sixth grade AR totals after the end of the first quarter grading period in both 2017 and 2018. Tables one and two display this information in raw and summative format. Qualitative, survey data was also collected using Google Forms via student iPads. Teacher-student reading conferences

were also briefly conducted at the conclusion of the quarter to hear, firsthand, participant thoughts as well as set goals for the following quarter.

## Results

### Data Analysis

The initial results seemed to show a great increase in the average points accrued over the quarter. However, a closer examination revealed two outliers within one of the two classes studied. One student, an avid reader, attained 374 points in the quarter and another gained 117. Excluding these two students, class D's average was 17.25 points, which is consistent with the 17.3 that Class C and Class B—from 2017—attained.

Table 1

*First Quarter AR Points by Student*

Participant	Class A	Class B	Class C	Class D
Student 1	17.6	19.2	8.7	9.7
Student 2	19.1	8.2	45.5	20.4
Student 3	27.7	4.7	30.4	16
Student 4	31.7	16.1	12	7.9
Student 5	34.5	27.8	24.6	374.1
Student 6	14.2	2.5	14	8.6
Student 7	0.4	43.7	40.8	7.5
Student 8	5.2	1.7	6.5	16.9
Student 9	16.6	28.7	24.9	15.8

Student 10	26.2	13.4	20.4	15.9
Student 11	38.4	17.7	18.3	12.7
Student 12	8.5	16.7	27.3	31.8
Student 13	19.3	16.8	7.2	9.7
Student 14	18.1	16.1	22.9	50.3
Student 15	2.2	17	7.7	117
Student 16	16.8	7.7	7.9	9.3
Student 17	4.8	17.1	15.5	20.9
Student 18	23.8	16.4	7.9	19.9
Student 19	18	49	6.8	7.8
Student 20	10.6	4.1	6.1	41.5
Student 21	16.9	9.7	12	7.9
Student 22	24.8	13.9	23	12.5
Student 23	18.6	21.9	8.3	7.3
Student 24	6.3	4.2	18.9	11.6
Student 25	50.7	18.8	1	43.6
Student 26	7.3	16.4	32	8.5
Student 27		4		
Student 28		4		

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*Note:* Each class contains different students. The study is non-linear.

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Table 2

*AR Point Averages by Class per Year*

Class	Total Points	AVG
17Class A	478.3	18.3
17Class B	438.1	15.6
18Class C	450.6	17.3
18Class D	905.1	34.8
18Class D*	414	17.25

*Note.* AVG = total points divided by number of test-takers in class.

\*Class D with the exception of outliers 5D and 15D.

When selecting books, 59% percent of students did not look up how many points the books were worth on library computers before choosing it. This is important to note because only 23% of students responded saying they did not look up the point value of a book in previous years of AR. It would seem easing the pressure of AR points has allowed students to select books based on interest or appeal rather than just the sheer number of points that can be accrued by finishing a book.

Responding to the survey, 16% of students said they read a book that did not have an AR test on it. This is an increase from the 4% of students who responded they knowingly read books without tests in prior years. Again, the researcher was encouraged that the lack of a point value for certain books did not discourage students from selecting them. One student, who is extremely interested in wildlife, especially horses, cheerfully told the researcher, "I had read the first book in this series last year,

but I never read any more because I discovered there was no test on them.” Students were told at the onset of the study that they could include the books without AR tests on them in their quarter summary of their independent reading conferences. Because of this option, this student was able to read a series she enjoyed on a topic of interest to her without concern over “wasted time” reading books without point values.

During individual reading conferences with students, the researcher uncovered some interesting rationale behind student books choices. One student remarked that he probably is not challenging himself enough with the difficulty of books he reads. He said he normally chooses shorter, simpler books instead of larger ones better suited to his needs and interest because he cannot remember enough information for the direct-recall questions on AR tests. “If I want to pass the tests, I have to read these little books,” the student remarked. Only 20% of students responded saying they were not excited about the elimination of the Accelerated Reader program at the seventh-eighth grade junior high. The AR program is implemented as early as third grade in this school’s district. Students were asked to respond to the statement, “I am excited to be finished with AR in 7th grade”. On a three-point Likert scale, 43% of students (n=22) responded *Strongly Agree* compared to 20% (n=10) responding *Strongly Disagree*. Regardless of whether they self-set goals or have goals set for them, there appears to be a consensus dislike for AR. Using a five-point Likert scale, 66% of students (n=36) had generally neutral or positive feelings towards AR, with only 15 students responding the opposite. This dislike for AR could be traced to a general despondence towards homework requirements or AR itself.

Using a five-point Likert scale, students responded to the statement, “The removal of the standard (16) point AR requirement made me enjoy independent reading more”. A large number, 45% of students (n=23), responded with either *Strongly Agree* or *Agree*. Only 15% of students responded *Disagree* or *Strongly Disagree* and 40% indicated *Neither Agree nor Disagree*. The results indicate that the majority of students either enjoyed independent reading just as much regardless of the point requirement or enjoyed it more.

Using a three-point Likert scale, students responded to the prompt, “I read more without the AR requirement this quarter”. Only 22% of students responded *Agree*, with the majority of students reported no significant change in the amount of reading. Answering either *Agree* or *Disagree*, 65% of students (n=33) thought they benefited without the AR requirement. This was a disappointing but not unexpected result of students setting lower goals or lack of emphasis placed on AR test-taking.

Participants were also asked if parents, grandparents, or an adult read out loud to them and, if so, until which grade. An incredible thirteen out of the fifty-two students replied that they could never remember a time when they were read to out loud. The researcher shared this information with the building reading specialist, and after reviewing the respondents names, they discovered that nine out of those thirteen students meet or had met with her for reading support in fourth, fifth, or sixth grade. It would seem there is a link between reading comprehension and fluency (two factors along with standardized test scores used to determine a student’s need for reading support) and being read to at a young age. Even with skilled educators, students who

are not read to at a young age appear to be at a disadvantage when compared to those who had been read to.

Out of all minority students (n=8), one of whom is an ELL student, 75% responded saying they did not read at all outside of school the entire quarter. This is 40% higher than the entire student average of 35% responding as never reading outside of school. More resources should be devoted to supporting minority students with in-home reading. After observing this discrepancy between racial groups, the researcher examined AR point data based on gender. As anticipated, both the 2017 females and 2018 females averaged more points than their male peers (see table 3). Marinak & Gambrell (2010) note this gender gap in detail during their study.

Table 3

Class	Total Points	AVG
2017 Boys	326.1	14.18
2017 Girls	589.7	19
2018 Boys	548.2	17.7
2018 Girls	809.7	36.8

## Discussion

### Summary of Major Findings

The results of this study are consistent with Troyer et al.'s (2018) findings that AR point requirements might increase the amount of reading that occurs. However, the love for reading and building reading interest has been the victim of AR requirements.

Although there were not dramatic increases in the number of AR points accrued by the

group of students during the study, there is still merit to the findings. Students read books they would otherwise have avoided due to a lack of tests on them. Students also worried less about the number of points a particular book could gain them and, instead, focused on what interests them. Although the study did not specifically set out to compare male and female reading habits, the findings confirm the assumption that at the sixth grade level, girls tend to read more than boys.

The short reading conferences with students were of great value to the researcher. Students discussed their weaknesses, strengths, and possible alterations to their reading habits to help them reach their goals for the following quarter. The two specific conversations mentioned in the data analysis proved especially enlightening. Seeing a student excited to revisit a reading series they were interested in previously, but had to drop due to the lack of AR tests showed the importance of encouraging reading of all literature, not just books seen as worthy of creating an AR test by Renaissance Learning. Also, the struggling reader who said he did not choose longer books because he could not pass the direct-recall questions on AR test emphasized the detrimental qualities of AR. The exact students they claim to help can end up being the ones who suffer the most and make the least gains simply because they cannot retain enough information to pass a ten-question AR test for a grade.

There is a wide range of points a student may accrue in a quarter of school in sixth grade. The lowest score was less than a single point whereas the highest score over the study was over two hundred points. A summary of points from following quarters with the same students would likely show similar point totals within a ten-point margin, based on the researcher's experience. Whether students set their own goal of

less than eighteen points or are told to reach eighteen, it appears that some students will only compile a few points over the two months.

### **Limitations of the Study**

As referenced in the data analysis, 16% of students responded saying they had read a book during the quarter that did not have an AR test on it. This 12% increase over previous years could skew data in *table 1* and *table 2* which quantitatively measures the effectiveness of this goal-setting based on AR points. If students confidently read books without tests on them, but in previous years would have avoided those books, the researcher sees this as a positive outcome, but one that may inherently decrease the point totals for the studied quarter.

Several limiting factors impacted the scope of this study. The study was restricted to a total of 104 participants due to the size of the grade. The study was only conducted over the course of nine weeks, which could limit the accuracy of results compared to a longitudinal study following the students over several years. A study conducted over an entire year might also show some students who did not accrue many points during the first quarter, earned more during the following quarters. There was little ethnic or cultural diversity within the group of study, with a building makeup of: White: 91%, Hispanic: 5%, Asian: 1%, Native American: 1%, Two or more races: 2% ELL: 2%. 26% of students receive free or reduced lunch. This study was conducted in a rural school whose towns serve as a bedroom community to a city of over 100,000 residents. Much of the land within the district boundaries is agricultural farm land.

### **Further Study**

Although the researcher was encouraged when reading Meier's (2015) success when students were allowed to choose books with no attached requirement—like AR—to them and read, the researcher feels there must still be some system for accountability when instructing the middle-ability readers who may lack motivation and are not likely to read were it not a requirement. Further steps should be taken to turn male and minority students into motivated readers. Between this and referenced studies, there seems to be evidence supporting higher levels of intrinsic reading motivation in females and white students than in males and minority students. While the sample size of minority students was small, in the context of this study, the disparity between male/female and minority/majority students was tangible.

Most of the literature referenced in this study examines short-term results of Accelerated Reader. A longitudinal study investigating the long-term effects of AR on students has merit, especially considering the scope of Renaissance Learning and their AR program across the United States and other countries. This researcher would also like to see the connection between parent-mandated reading at home and a student's love of reading. The connection between being read to as a child by parents and their love of reading would also be of interest. The brief, qualitative data seems to display a link between a child listening to a fluent reader and a child's test scores.

### **Conclusion**

Does goal-setting affect a sixth grade students' Accelerated Reader point accumulation total in a quarter? The short answer is yes. If such rigid restrictions are included with AR like in much of the literature, the love for reading is squelched. Self-set goals allow for more control over their own reading and less rigidity. Whether the

teacher sets linear requirements for students or students self-set goals, the AR point data suggests no substantial change in AR totals and that there are three different types of readers. Certain students will read simply to meet the goal, others will not read, regardless of a point requirement for a grade or not, and a number of students will read for the joy of reading, even if AR were not in existence. Reading teachers, much like Meier (2015) and Nichols (2013), would be compelled to agree with these labels—especially the group of students who do not label themselves as readers, and as such, do not read, regardless of incentives. The findings of this study coincide with the majority of the literature, which states that setting goals is a helpful, but not absolutely effective, tool. We still do not know the lasting effects of AR on older students, but this study shows that the vast majority of students are ready to be finished with the program after four years of use.

The results of the current study highlight the importance of meeting the needs of the students who will only read if AR is a tangible part of their grade. The student-teacher bond is the best predictor of a student's likelihood to read and enjoy reading. It is up to the teacher—not a test-taking program like AR—to make the critical connections with students that will enable students to find, delve into, and persist with a book because the student enjoys the experience simply for the love of reading.

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**Appendix A**

**AR Goal Sheet**

Student Name: \_\_\_\_\_

Mr. King is trying something different this year. The usual 6th grade class goal for first quarter is 16 points by November 1. However, I want you to challenge yourself to an attainable goal that you think is suitable for yourself as a reader. At the end of the quarter, you will do a self-assessment of your individual progress/performance for your AR grade.

In 5th grade, my 4th quarter AR points totaled \_\_\_\_\_ points.

For first quarter, my personal goal is to earn \_\_\_\_\_ AR points.

Student Signature \_\_\_\_\_

Parent Signature \_\_\_\_\_

*Figure 1.* AR goal sheet used to set sixth grade, first quarter AR goals by participants.