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Impact of Audiobooks on Reading Attitudes of Upper Elementary Students

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Abstract

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Action Research Report Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education

Impact of Audiobooks on Reading Attitudes of Upper Elementary Students

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Action Research Report
Submitted in Partial Fulfillment
of the Requirements for the
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Table of Contents

Title Page	1
Acknowledgements	2
Table of Contents	3
List of Tables	4
List of Figures	5
Abstract	6
Introduction	7
Literature Review.....	9
Methods	16
Results	19
Discussion	29
References	34
Appendices	
Appendix A	40

List of Tables

Table	Page
1. Individual Reading Attitudes Pre and Post Treatment	20
2. Reading Attitudes Pre and Post Treatment.....	21
3. Average Change per Category	22
4. Changes in Reading Attitudes by Reading Comprehension Skills	24

List of Figures

Figure	Page
1. Mean Changes in Reading Attitudes by Reading Comprehension Skills	23
2. Individual Change in Reading Comprehension Skills	25
3. Changes in Reading Attitudes	26
4. Choice of Format by Reading Comprehension Skills	29

Abstract

There is a documented complex relationship between reading attitudes, reading volume, and reading comprehension skills. Stanovich (1986) documented the impact of positive attitudes towards reading on reading volume, and Allington (2014) described how reading volume impacts reading comprehension skills. This mixed methods action research study builds on these studies and explores the use of audiobooks during free reading time to examine their impact on reading attitudes. Twenty-three students in a grade 5/6 class in Alberta, Canada, listened to audiobooks during free reading time for 20 minutes, three times a week, for six weeks. Results indicate no significant change in attitudes in the class average change but some positive improvement in reading attitudes for the participants with the lowest reading comprehension skills.

Keywords: audiobooks, reading attitudes, reading comprehension, free choice reading

“To learn to read is to light a fire; every syllable that is spelled out is a spark” (Hugo, 1907, p. 184). For many people, learning to read in early elementary school is the spark that begins a lifetime of being a reader. For these readers, books provide instruction, inspiration, escapism and connections to other people and ideas. There seems to be ample opportunity to keep this spark alive; we live in a world where access to books is unprecedented. In Canada, 93% of Canadian schools had libraries in 2004 and 95% of Canadians had access to a local public library in 2010 (Scrader & Brundin, 2012).

If there is unprecedented access to reading material, it may seem surprising that just under half of Canadians read a book only 1-3 times per month or not at all (Hirschberg, 2022). The situation is no better for students. One in three American 13-year-olds surveyed said they never read for fun. The situation is only slightly better for younger children: 16% of 9-year-olds surveyed said they never read for fun (Schaeffer, 2021). One would hope that, at minimum, students would be reading regularly in their English language arts class at school, but even this is not the case, and many students are not receiving the volume in their language arts class necessary for adequate literacy development. Brenner and Hiebert (2010) documented that many American commercial core reading programs only provide, on average, 15 minutes per day of daily reading activity.

If children are not reading, consequently, they are not developing their reading skills, since research demonstrates a clear link between the volume of reading and reading achievement (Allington, 2014). A complicated relationship exists between reading volume, reading achievement, and the motivation to read; an understanding of this relationship is necessary to inform reading instructional practices. Among researchers, however, there is still much debate even about how children should be taught to read (Pearson & Goodin, 2010). What is clear,

however, is that something must be done, considering one in four students struggles to read grade-level textbooks by the time they enter middle school (Allington & Gabriel, 2012).

Many attempts have been made to solve this problem, such as summer reading programs, reading prizes, and books floods, and these attempts have been met with varying levels of success (NICHD, 2000). However, when examining the habits of adult readers, 14% of Canadians regularly listen to audiobooks (Hirshberg, 2020) and audiobooks show promise in motivating students to read and providing some of the same benefits as reading traditional books to increase reading achievement (Best & Clark, 2021). While audiobooks have a history of being used as an intervention for students with disabilities (Esteves & Whitten, 2011; Montgomery, 2009; Moore, 1973), there is limited documentation on the use of audiobooks to improve reading attitudes and reading comprehension in the general student population (Stevens, Walker & Vaughn, 2017).

Purpose of the Study

The purpose of this study is to determine if the use of audio books during free choice reading time increases a positive attitude towards reading.

Research Question

1. Does the use of audiobooks in addition to traditional texts during free choice reading increase a positive attitude towards reading in grade 5 and 6 students with varying reading abilities?
2. Is there a difference in change of attitudes between students of varying reading comprehension abilities?

Definition of Terms

For the purpose of this study, the following definitions will be used. Unless otherwise indicated, the definitions are that of this researcher.

Audio books are electronic recordings of a reading of a book.

Free choice reading is in-class reading where students self-select their reading material.

Reading attitude is “a system of feelings related to reading which causes the learner to approach or avoid reading situations” (Alexander & Filler, 1976, p. 8).

Reading achievement is a term that is used to cover a range of information about students' reading performance. Reading achievement usually refers to being able to use the skills that are needed to read grade-level material fluently and with understanding (McKenna, 2014).

Reading comprehension is a multi-faceted skill that includes strategic knowledge, language comprehension, and automatic word recognition (McKenna & Stahl, 2009)

Literature Review

Conventional teacher wisdom dictates that students need to read in order to succeed. While reading, students are exposed to facts that are beyond their personal experiences, and ideas that help them stretch and grow. Reading for pleasure is associated with academic success and is a stronger factor for a students' educational success than their family's socio-economic status (Clark & Rumbold, 2006). Years of research was recently summed up by Allington (2014, 2021) who stated that reading volume is absolutely essential to reading development and academic success. Allington (2014) argued that, “reading volume deficits are largely overlooked when explanations of reading difficulties (or fluency problems) are offered and overlooked in designing intervention lessons to remediate the reading difficulty” (p. 17).

Reading volume is important, but its importance does vary depending on the age level of the student. In the upper elementary classroom, students are often described as reading in order to learn, rather than learning to read. If students learn to read, they can read to learn almost anything (Centre for Public Education (CPE), 2015). Interestingly, there is a reciprocal relationship between reading volume and reading achievement, with reading achievement predicting reading volume in the early grades but reading volume predicting reading achievement beginning in grade 3 and beyond (van Bergen, Vasalampi & Torppa, 2021). These researchers followed 200 children from age 5 to 13 and used the Programme for International Student Assessment (PISA) to assess reading skills. In early years, they discovered that reading fluency and comprehension predict print exposure while later, print exposure predicted PISA scores. They concluded that, “How much children read seems to matter most after the shift from learning to read to reading to learn” (van Bergen, Vasalampi & Torppa, 2021, p. 1).

Yet, it is precisely in the upper elementary ages, that reading attitudes begin to decline. Meece and Miller (1999) documented how reading attitudes start to decline in grade four and continue to decline each subsequent year. There are patterns of documented decline in reading attitudes between grades six and nine (McKenna et al., 2012), but a recent Canadian study documented the time of greatest decline as between grades six and seven (Nootens et al., 2019). The researchers used an adapted version of the Elementary Reading Attitude Survey (ERAS) and administered it to 468 students. They failed to reveal any significant difference in attitude scores between fifth graders and sixth graders; similarly, there was no significant difference between grades 7 and 8. However, attitude scores fell significantly between grades 6 and 7. The researchers point out that this is the transition year for students from elementary to middle school, and that it is difficult to identify exact causes of the attitude shift (Nootens et al., 2019).

Given the CPE's claim that upper elementary students need to read in order to learn, it is alarming that at the very ages in which reading becomes important for academic purposes is where attitudes toward it also decline. By the time students enter junior high, one in four students will struggle to read the grade-level textbooks they are assigned (Allington & Gabriel, 2012). One explanation for this phenomenon is given by Swan, Coddington and Guthrie (2010), who explain that in these grades there is an increase in content knowledge and more emphasis on extrinsic motivation such as grades. They argue that this shift in focus leads to decreased motivation, which leads to decreased reading comprehension, followed by decreased volume of reading and finally a decrease in overall academic achievement. Swan et al. base their conclusions on the work of Baker and Wigfield (1999). These researchers administered the Motivation for Reading Questionnaire (MRQ) to 371 fifth and sixth grade students. They analyzed their results, sorted the students into clusters, and concluded that there are different dimension of reading motivation (grades vs curiosity, for example) and that these dimensions relate differently to children's reported reading activity and performance on tests of reading achievement.

Students' challenges with reading attitudes are amplified as they grow older. Stanovich (1986) first explained this phenomenon as the "Matthew effect"; that is, the rich get richer and the poor get poorer. He described how stronger readers spend more time reading for pleasure and become stronger, while weak readers read less and do not show the same improvement. Other researchers have further described this principle and explain that there is an upward spiral of causality with reading for pleasure; that is, proficient readers read more and improve their reading skills while weak readers do not (Mol & Bus, 2011). This theory has been once again confirmed in recent research; van der Kleij et al. (2022) describe their research findings by

stating that vocabulary is essential to reading comprehension, and that there is a crucial role of leisure reading in the development of vocabulary. They concluded that, “Word reading ability frees up cognitive resources to comprehend and learn from the text...more able readers read more and therefore encounter more novel words, and in diverse contexts” (van der Kleij et al., 2022, p. 514).

Although these recent studies presume that in today’s classroom students should have time for reading, this has not always been the case. Pearson and Goodin (2010) documented the change from a largely oral reading culture to our modern practice of silent reading. For much of recorded history, written documents were scarce and oral reading was the way in which information was shared. Reading aloud was used to memorize scriptures and ensure orthodoxy. It was not until the time of the Reformation that individual study was promoted. For many years, oral recitation tasks were a common pedagogical tool, and this continued up to the 19th century. The explosion of print, and most particularly printed materials meant for entertainment, occurred and by the early 20th century, secular reading became the rule (p. 5).

Encouraging students to read silently in school saw several emergences, starting with individualized reading approach (IRP) that began in the 1920s, then the USSR (Uninterrupted Sustained Silent Reading) approach of the 1960s, and finally with constructivist reforms in the 1990’s that also saw a push for more free choice reading (Kelley & Clausen Grace, 2010). Surveying the most recent research on free choice reading in the classroom is challenging due to the number of terms used for this practice. Some examples are individualized reading, uninterrupted sustained silent reading, silent-sustained reading, self-selected reading, independent reading, leisure reading, reading for pleasure, free choice reading, and free-voluntary reading. However, Manning, Lewis and Lewis (2010) navigated this complicated

landscape and organized all the research from 1975 to the time of their report. They summarized their findings by stating that while, “The majority of the studies discussed in this chapter show that independent reading is a positive and constructive instructional practice, there are still questions and issues that need to be addressed. More research needs to be done...” (p. 124).

One study that is included in Manning, Lewis and Lewis’ 2010 survey is the work of Langford and Allen (1983). They implemented 30 minutes a day of free choice reading for a treatment group over a six-month period. The treatment group saw an increase in reading test scores that was significantly greater than the increase in reading tests scores of the control group. A similar study completed by Holt and O’Tuel (1988) with seventh and eighth grade students over a ten-week period showed that students who engaged in free choice reading scored significantly higher on reading achievement measures than the control group.

While there are no studies that show that free choice reading harms students, it can be challenging to design research that proves causation of free choice reading being necessary for student literacy development. Garan and DeVogd (2008) explain that the lack of compelling research to prove causation is explained by the challenges of designing an experimental design on benefits of free reading in classrooms since it would be unethical to prevent students from reading. However, many correlational studies show a link between free choice reading and reading achievement (Allington & McGill-Franzen, 2003; Gambrell, 2007; Holt & O’Tuel, 1988; Krashen, 2001, 2005; Langford & Allen, 1983; Reutzel & Newmann, 2010).

Although these above-mentioned studies show correlation between free choice reading and achievement, free choice reading was notably absent from the National Institute of Children Health and Human Developments’ report (NICHD). In 2000, the NICHD listed best practice strategies for teaching reading. The report asked research questions on topics such as evaluating

practices of teaching phonemic awareness, phonics instruction, repeated oral reading, vocabulary instruction, and comprehension strategy instruction. With regards to increasing the amount of free choice reading, the report stated, “It is not that studies have proven that this cannot work, only that it is yet unproven” (NICHD, 2000, p. 3-27). One of the results of this report is that schools adopted the strategies presented in the panel’s report at the expense of free choice reading (Hiebert & Reutzel, 2010).

Although a large number of schools changed policy to focus primarily on NICHD’s strategies, there were many dissenting voices. For example, Krashen (2001) wrote a scathing rebuttal that accused the NICHD of omitting many relevant studies and misinterpreting the ones that were included. His considerable research argued that extensive free choice reading is the best way to help children become better readers, writers, and spellers (2001, 2006). Another example of the recent promotion of free choice reading is found in the popular work of Miller. In 2009, she wrote a best-seller entitled *The Book Whisperer: Awakening the Inner Reader in Every Child* that encouraged teachers to build communities around free choice reading. Many classrooms implemented her 40 Book Reading Challenge and the popularity and successes of her methods prompted a second book in 2014 titled *Reading in the Wild: The Book Whisperer’s Keys to Cultivating Lifelong Reading Habits*. These two books focused on improving attitudes towards reading, with the goal of increasing volume, to result in improved reading ability.

If reading volume is key to achievement, and attitudes towards reading decrease in upper-elementary grades, what can be done to improve attitudes, thereby increasing volume and reading achievement? Some studies have suggested the use of audiobooks as an intervention (Esteves & Whitten, 2011; Miller, 2009; Montgomery, 2009; Moore, 1973). The use of audiobooks in education is not new. For example, in 1973, Moore studied student outcomes in

high school biology when audio tapes were used to supplement reading for low achieving students. While the technology itself has changed, and cassette tapes turned into compact disks which turned into digital delivery of audio files, audiobooks have not disappeared from the classroom. More recently, Montgomery (2009) demonstrated that the use of audio books can improve reading and academic performance for both English language learners and native English speakers. Struggling readers benefit from a fluent model and audiobooks are a practical alternative to teacher read-alouds (Miller, 2009).

Several years later, Stevens, Walker and Vaughn (2017) synthesized research on the effectiveness of reading interventions on elementary students with learning disabilities and concluded that assisted reading with audiobooks produced gains in reading fluency and comprehension. One of these studies is the work of Esteves and Whitten (2011), who created an intervention with 20 upper elementary students with documented learning disabilities in the area of reading. Students were randomly assigned to a control or treatment group, with the treatment group listening to self-selected audio books while reading along in the traditional book. Students in the treatment group showed a greater increase in reading fluency than the control group. However, their study did not show significant differences in measurements of reading attitudes between the two groups. Stevens, Walker and Vaughn (2017) concluded that more research is necessary in order to better determine the effectiveness of assisted reading with audiobooks on both fluency and comprehension outcomes.

During the Covid lockdown in 2020, there was a rapid increase in the use of audiobooks among children and adults and streaming services such as Audible and Spotify became very popular (Maughan, 2022). It is not clear if this was primarily due to lack of access to physical libraries, or because of increased leisure time (Best & Clark, 2021). However, this phenomenon

caused new research to be initiated. Best (2020) described that positive engagement with audiobooks can develop reading skills such as decoding and comprehension. In the following year, Best and Clark (2021) argued that listening comprehension and reading comprehension are related skills and that an increase in one skill positively impacts the other skill. They also demonstrated that listening to audiobooks can increase motivation to read traditional books. They surveyed children and young adults in the UK and 21.7% of respondents indicated that listening to an audiobook or podcast has increased their motivation to read books.

In summary, reading widely is important for reading development and academic success, but there is a rapid decline in the volume and attitudes toward reading during the upper elementary grades. Classroom free choice reading has been shown to benefit students, however, those students with low reading ability tend to have low attitudes toward reading and are not engaged in free reading, denying them the advantages that this activity provides. Reading ability, reading attitudes, and reading volume are part of a complex relationship and students with poor attitudes often demonstrate poor ability and low volume. Audiobooks seem to offer similar benefits to silent reading and show promise to engage reluctant readers.

Methods

This quasi-experimental, mixed methods study examined the correlation between the use of audio books and the attitudes toward reading in grade 5 and 6 students, with varying reading comprehension skills, in an independent school in northern Alberta.

Participants

The research participants were 23 grade 5 and 6 students from an independent Christian K-12 school in Northern Alberta. The students were in a multi-age classroom. Eleven of the students (5 girls and 6 boys) were in grade 5, and 12 students (7 girls and 5 boys) were in grade 6. At the

time of the study, students ranged in ages from 10 to 13. The classroom is inclusive, with three students on Individualized Program Plans (IPPs) and several others receiving support services. The participants had a wide range of reading skills. Using DIBELS MAZE scores as an indicator, the grade 5's had stronger average reading comprehension skills than the grade 6's in the pre-treatment assessment (grade 5 with 18 points and grade 6 with 17 points), as well as a higher median score.

Materials

The following materials were used in this study:

Elementary Reading Attitude Survey (ERAS). This survey was developed by McKenna and Kear (1990) to measure attitudes towards reading, addressing both recreational reading and academic reading. This study follows a recommended use of the tool as the authors state it can "serve as a means of monitoring the attitudinal impact of instructional programs" (McKenna & Kear, 1990, p. 628)

Dynamic Indicators of Basic Early Literacy Skills, 8th Edition (DIBELS). This tool was developed by the University of Oregon to assess the acquisition of literacy skills and was used in this study to identify students' reading comprehension skills. The MAZE subtest was used.

GetEpic.com - a website that offers audio books for elementary age students.

Traditional books to match the titles chosen from Epic

iPads and Laptops

Procedure

Prior to the study, students completed the DIBELS MAZE test and were classified according to their risk levels for deficits in reading comprehension skills. This was done as regular classroom assessment; however, the data collected was used to identify groups of

students and patterns of results. Every student completed the ERAS to measure their attitudes towards reading.

For the next 6 weeks, students were given 3 blocks (each 20 minutes) per week to listen to audio books while reading along with the traditional book. They were given a list of audio books to choose from and used the audiobooks from GetEpic.com. The list was compiled by choosing from a wide range of genres and reading levels available on Epic and finding titles that were also available in traditional book format from the classroom, school, or public library. At the beginning of the study, students used iPads from a shared cart, however, due to insufficient devices and in-operational devices, students began using laptops from the shared cart midway through the project.

After 6 weeks, the ERAS was re-administered, and the data was examined to see if there were any significant changes to reading attitudes. Raw scores were compared to determine the direction and amount of change. The data was arranged as a whole class, per grade, and per level of risk for reading deficits to see if any patterns emerged. The DIBELS MAZE test was also re-administered as part of regular classroom assessment.

For the qualitative dimension of this study, students were asked to fill in a Microsoft Form immediately following the last session of audiobook reading, giving their response to several questions pertaining to the use of audio books in class (see Appendix A). These responses were coded, and common themes identified using an inductive cross-case thematic analysis.

Results

Quantitative Results

The purpose of the study was to determine if using audio books during free choice reading would increase a positive attitude towards reading in grade 5 and 6 students with varying reading comprehension abilities. Examining the individual ERAS results, out of the 23 participants, 10 showed an increase in their reading attitudes toward recreational reading, 8 showed a decrease, and there was no change for 5 participants. The greatest negative change was -6 points, and the greatest positive change was 16 points. Individual change in pre and post-treatment scores are presented below in Table 1.

Table 1

Individual Reading Attitudes Pre and Post Treatment

Student	pre-treatment	post-treatment	Change
1	33	35	2
2	19	20	1
3	38	36	-2
4	14	15	1
5	19	19	0
6	14	30	16
7	28	26	-2
8	23	23	0
9	40	39	-1
10	24	19	-5
11	35	37	2
12	31	30	-1
13	31	31	0
14	34	36	2
15	33	33	0
16	38	39	1
17	24	33	9
18	22	16	-6
19	24	22	-2
20	34	35	1
21	32	34	2
22	34	34	0
23	21	19	-2
Average	28.0435	28.7391	0.6957

When examining the ERAS results for average changes in attitudes toward recreational reading, there was negligible change, with a mean raw score of 28.04 on the pre-assessment and 28.74 on the post-assessment. The variance on ERAS scores was larger post-treatment than pre-treatment (58.95 on pre-treatment and 61.84 post-treatment). A t-test with unequal variance was run on the pre and post ERAS recreational attitude data. When examining the two-tail p-value

($p=0.76$), there does not seem to be a significant difference between the pre and post scores. This data is presented in Table 2.

Table 2

Reading Attitudes Pre and Post Treatment

	<i>Raw Pre-Treatment Recreational Attitudes</i>	<i>Raw Post-Treatment Recreational Attitudes</i>
Mean	28.04347826	28.73913043
Variance	58.95256917	61.83794466
Observations	23	23
Hypothesized Mean Difference	0	
t Stat	-0.303556579	
P(T<=t) two-tail	0.762896538	
t Critical two-tail	2.015367574	

Although there is little change on the mean score for reading attitudes, more variation is evident when the data is broken down into smaller groups. The data was divided into 3 groups: the participants that showed an increase in recreational reading attitudes according to the ERAS, those that decreased, and those that showed no change. The mean change was calculated for each of these groups. The mean change for the group that showed an increase in recreational reading attitudes was 3.7 points, while the mean change for the group that showed a decrease was -2.65 points. The participants that showed an increase had a greater average change than the group that showed a decrease (see Table 3).

Table 3

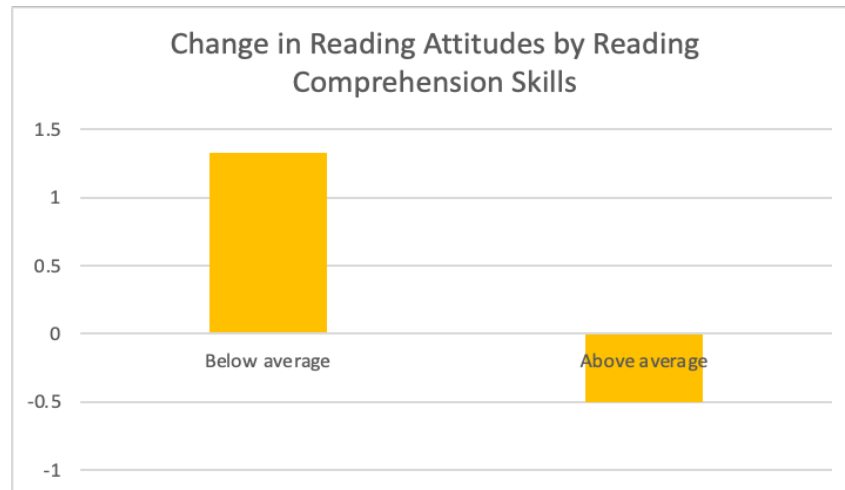
Average Change per Category

	Number of Students	Mean pre-treatment	Mean-post-treatment	Mean change
Decrease Group	8	28.5	25.875	-2.625
No Change Group	5	28	28	0
Increase Group	10	27.7	31.4	3.7

Finally, the data was sorted by reading comprehension skills as measured by the DIBELS MAZE. The research question asked how attitudes towards reading changed with the use of audiobooks for students of varying reading abilities. Participants were divided into two groups: those with reading comprehension skills below the class mean and those with reading skills above the class mean. Students with reading comprehension skills below the class average saw gains of a mean of 1.3 points on the ERAS recreational reading test. However, students with reading comprehension skills above the class average saw a mean decrease in the reading attitude of -0.5 points, as shown in Figure 1.

Figure 1

Mean Changes in Reading Attitudes by Reading Comprehension Skills



Similarly, there is a weak negative correlation of -0.22 between reading comprehension skills and improvement in attitude towards reading. That is, the lower the participant scored in reading comprehension, the more likely they were to see improvements in reading attitude after participating in the audio book listening project. This correlation was calculated with the pre-treatment MAZE scores and the change in ERAS scores, with values demonstrated in Table 4.

Table 4

Changes in Reading Attitudes by Reading Comprehension Skills

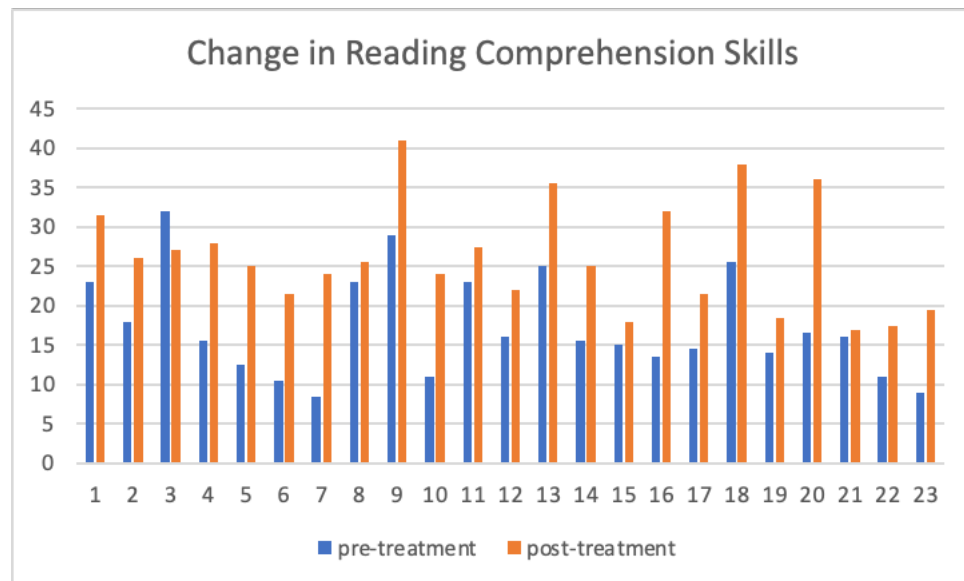
	<i>pre- treatment ERAS</i>	<i>post- treatment ERAS</i>	<i>change in ERAS</i>	<i>pre- treatment MAZE</i>	<i>post- treatment MAZE</i>	<i>change in MAZE</i>
pre-treatment ERAS	1.00					
post- treatment ERAS	0.84	1.00				
change in ERAS	-0.24	0.32	1.00			
pre-treatment MAZE	0.42	0.28	-0.22	1.00		
post- treatment MAZE	0.27	0.14	-0.22	0.63	1.00	
change in MAZE	-0.28	-0.29	-0.02	-0.38	0.26	1.00

Considering the link between reading comprehension skills and reading attitudes (Mol & Bus, 2011; Stanovich, 1986; van der Kleij et al., 2022), and the inclusion of varying comprehension skills in the research question, the researcher was also interested in the change in reading comprehension skills based on pre and post project assessment using the DIBELS MAZE. For the duration of the project, listening to audiobooks was the only reading instruction that occurred; the rest of the Language Arts time was spent teaching opinion writing and public speaking. Of the 23 participants, 21 saw an increase in reading comprehension skills, 1 saw no change, and 1 saw a decrease. The average increase in reading comprehension skill was 8 points. A t-test with unequal variance was run on the pre and post DIBELS MAZE scores. When examining the two-tail p-value ($p=4.4$), there is significant likeliness that something produced a

difference between the pre and post treatment DIBELS MAZE scores. Individual participant changes in reading comprehension skills are presented below in Figure 2.

Figure 2

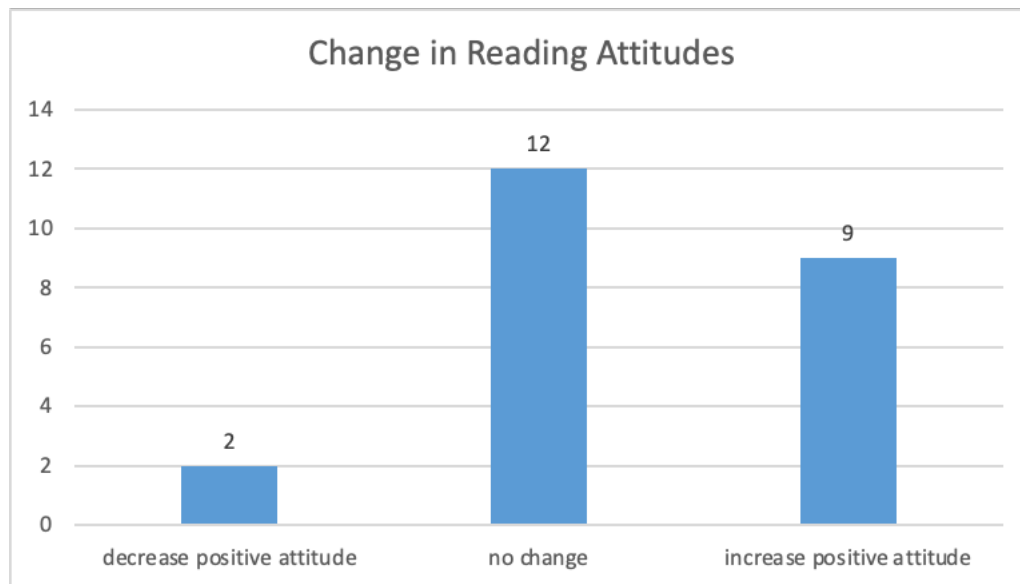
Individual Change in Reading Comprehension Skills



Qualitative Results

Qualitative data was also collected to determine the extent to which audiobooks impacted reading attitudes using a grounded theory approach. Interview questions were developed (see Appendix 1) and delivered to participants via a Microsoft Form. Question 3 was a direct rephrasing of the research question: *Has listening to books made you like reading more or less? Why or why not?* Cross-case thematic analysis was used to group the responses into negative, positive, and neutral responses. Eight students reported an increase in their enjoyment of reading, 13 students reported no change, and 2 students described liking reading less after the implementation of audio books.

Figure 3

Changes in Reading Attitudes

Further examination of the data for this question, and the remaining questions, was done with a cross-case pattern analysis and inductive analysis. Three main themes emerged. Firstly, participants explained that audio books helped them understand the story (i.e., an increase in reading comprehension skills). Student 21 stated that, "Listening to audio book [sic] has made me like reading more because I can understand what is going on when I am listening to it better than when I am reading it to myself." Student 8 stated that, "I like reading more because it is easier for me to picture the book in my head." Student 7 shared, "Because now I can read with expression more myself because of audio books makes [sic] me know what they say". These quotes demonstrate that listening to audiobooks while reading a book makes these participants feel more confident in their comprehension, thus increasing their attitudes towards reading.

The second theme was that audio books made them like reading more because of the access to a wide variety of books. Comments included, “They show you that there are plenty of ways to read books, which makes me want to find other books,” and, “I can now test out the books and if I don’t like it I can delete it,” and, “I get to read more interesting books.” When the participants were asked if they liked or disliked the experience, many participants gave reasons that were not related to the format, but rather to the choice of book. Student 10 stated, “I liked it because it was fun and it got me into the I survived [sic] book series”. Other comments included, “It made me try a new book,” and, “The books were interesting.” Participants who reported negative feelings about the experience also mentioned book choice as more important than format, for example student 6 said, “I did not like it because I did not like my book,” and student 21 explained, “When I first started my audiobook I didn’t like it very much until it started talking about the world war 2 in Serbia [sic].”

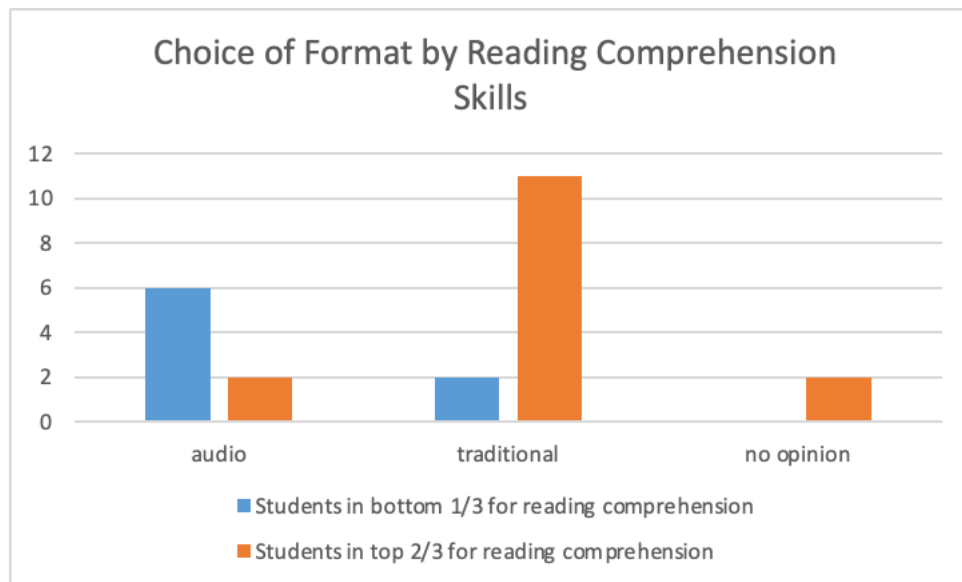
The most common theme that emerged in positive comments was that the experience was relaxing. 65% of the participants used the words ‘relax’, ‘relaxing’, ‘peaceful’, or ‘decompressing’ (this last word was clarified to mean decreasing the level of stress). Student 11 expressed that the timing of the audiobooks was important to them, saying, “I liked that we could relax, while reading the audiobooks, and that we were allowed to listen to them in the mornings, as opposed to the afternoons.” The positive associations of reading as a stress-reducing and relaxing activity could be associated with more positive attitudes towards reading.

A pattern emerged when the comments were organized by reading comprehension skills, as measured by the DIBELS MAZE. Students with low reading comprehension skills tended to emphasize how audio books helped them enjoy reading more. Student 17, who saw a 9 point increase in the ERAS reading attitudes score and had below average reading comprehension

skills, stated that, “I really liked it because I usually get board [sic] after reading for a while but I didn’t really get board [sic] when listening to audiobooks.” Student 8 responded by saying, “Even after a long time they don’t hurt your head like reading does.” On the other hand, participants with high comprehension skills were more likely to mention factors related to variety and access to books. Participants with higher reading comprehension skills exclusively mentioned lack of speed with audiobooks as a factor that made the experience less enjoyable. Six participants mentioned slow speed as being a negative factor of audiobooks and these participants were all in the top third of the class for reading comprehension skills.

When asked if they preferred traditional books or audio books, 13 participants said they preferred traditional books, eight said they preferred audio books, and two were unable to decide. A distinction emerged once again when the data was sorted by reading comprehension skills. Students who were ranked in the bottom third of the class with regards to reading comprehension skills overwhelmingly preferred audio books, while the remaining students in the top two thirds preferred traditional books. This data is shown in Figure 7.

Figure 4

Choice of Format by Reading Comprehension Skills**Discussion****Overview of the Study**

The purpose of this study was to determine if using audio books increased the reading attitudes of students. The study was conducted with 23 grade 5 and 6 students, who listened to audio books over a six-week period. The participants' attitudes towards reading were assessed with the ERAS before and after the treatment. In addition, participants responded to a written survey about their experiences with the project.

Summary of the Findings

When taking the class average of the change in ERAS results, there is no clear improvement in reading attitudes. However, when examining the results considering the varying reading comprehension skills of the participants, a clear pattern emerges. Both in the quantitative

and qualitative results, indications show that students with low reading comprehension skills show the greatest gains in reading attitudes following the audiobook intervention. Students with below class average reading comprehension skills gained 1.3 points on the ERAS, while students with above class average reading comprehension skills showed a decline in attitudes of -0.4. Student 6 showed the greatest gains in reading attitudes (+16), but the second lowest reading comprehension skills in the class per the DIBELS MAZE. Similarly, students with low reading comprehension skills preferred audiobooks over traditional books, citing increased comprehension as reasons for their improved enjoyment of reading using audiobooks.

The decline in reading attitudes among middle school age students has been previously documented (McKenna et al, 2012). In fact, Nootens et al. (2019) even pinpoint the time of greatest decline as occurring in grade 6. Given this information, even the slight increase in positive attitudes towards reading shown by the participants may allow for a cautious conclusion that audio books may play some part in mitigating decreases in reading attitudes at this age level.

Recommendations

Based on the results of this research, it is recommended to use audiobooks with students who have low reading comprehension in order to improve their attitudes toward reading, with the goal of increasing reading volume and building reading comprehension skills. Even though students of varying reading comprehension skill levels do not achieve the same change in attitude when using audiobooks, because of the reported affective benefits and exposure to diverse titles, it is recommended to introduce all students to using audio books. In addition, this could reduce stigma for the students who have weaker skills and perhaps reduce the perception that audiobooks are only necessary for certain types of readers. After all students have experienced using audiobooks for some time, allow students to make a choice between

audiobooks and traditional books. Based on the research results shown above, students who have the lowest reading comprehension skills are most likely to self-select audiobooks, which have been shown to be most beneficial for this group.

For the use of audiobooks to be successful, it is recommended that the appropriate technology be available. Firstly, audiobook intervention is recommended in classrooms that have one to one technology or relatively easy access to devices. The participants in the study were limited to listening to their audiobooks to when the technology cart was able to be booked. In the usual rhythm of the researcher's classroom, there were many moments during the day when students have opportunity to read, for example, after finishing an assessment or while waiting for the next class to begin. It would be ideal if the use of audiobooks could be implemented during these times as well. In addition, due to malfunctioning or uncharged devices, the researcher's classroom did not always have enough devices for each student and there were times when a small number of students were not able to participate.

Secondly, it is recommended to explore different platforms for the delivery of audiobooks. Get.Epic was chosen because it was free of cost. However, students could only access the platform for free during school hours and did not have the opportunity to continue accessing the audiobooks at home. In addition, the titles were limited, and participants identified that choice of books was important to them, both for those that enjoyed the experience and for those that did not. In order to maintain the mission and vision of the school, the titles were screened to those that the researcher could personally verify for appropriate content or those that suitable reviews could be found. The students had access to just over 100 titles, but increasing the variety would allow for greater student choice.

Topics for Further Study

There is a need for further research on the efficacy of using audiobooks during free choice reading to increase reading attitudes. In this study, participants were given the traditional books to read along while they listened. More research is needed to see if reading along is necessary to benefit from using audiobooks. Preliminary results show an increase in reading comprehension skills while using audiobooks; this is a separate topic that deserves further study. Given the connectiveness between reading volume, attitudes, and comprehension, more research is necessary to determine the impact of audiobooks on students' reading skills. Finally, some data emerged that showed a benefit of using audiobooks to participants' emotional health. Further research should be done to quantify these findings.

Limitations

In addition to the limitations noted above regarding the use of technology, other limitations were present in this study. To begin with, the number of participants is too small to be able to transfer the results to a larger population. The demographics of the research participants were limited, with the majority of the students coming from Caucasian, middle class families. No English language learners were participants in the study. Further study is necessary, with a larger and more diverse group of participants, in order to confirm or reject the results. Also, the pre-post model of this project is quasi-experimental, and the lack of a control group means that outcomes causality cannot be determined, and only associations and correlations can be concluded.

Secondly, the qualitative data was collected by a self-report questionnaire. The results may be affected by the social-desirability bias that is inherent with this type of data collection. The mental state of students for pre-post attitude survey could impact the results.

Finally, the timeline of the study was a limitation. The study took place over 6 weeks. Some participants with longer audiobooks did not have the opportunity to finish their book during this time frame, and this could have impacted their perceptions of the project.

Conclusion

If the adage that, "students need to read to succeed" holds true, then finding ways to make students want to read is important. This study looked at using audiobooks to increase students' positive attitudes towards reading in order to motivate them to read more. When asked for any additional closing thoughts in question 5, student 14 responded by saying, "I already loved books before doing this, but I think I like it even more now." This final response summarizes the researcher's hopes for the results of this project.

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Appendix A

Interview Questions

In the past few weeks, we have listened to audio books in class. How did you like this experience?

Do you prefer audio books or normal books? Can you tell me why you chose that option?

Has listening to books made you like reading more or less? Why or why not?

Would you want to continue listening to audio books in class? Why or why not?

Is there anything else you would like to tell me about this experience?