



HOUSE of REPRESENTATIVES

STATE OF MICHIGAN

Appropriations Requests for Legislatively Directed Spending Items

1. The sponsoring representative's first name:
Timothy
2. The sponsoring representative's last name:
Beson
3. The cosponsoring representatives' names. All cosponsors must be listed. If none, please type 'n/a.' A signed letter from the sponsor approving the co-sponsorship and a signed letter from the member wishing to co-sponsor are required. Attach letters at question #9 below.
N/A
4. Name of the entity that the spending item is intended for:
Learning Ally
5. Physical address of the entity that the spending item is intended for:
20 Roszel Road Princeton, NJ 08540
6. If there is not a specific recipient, the intended location of the project or activity:
These funds would be used to provide access to the Learning Ally Audiobook Solution to Elementary, Middle, and High Schools statewide.
7. Name of the representative and the district number where the legislatively directed spending item is located:
Statewide
8. Purpose of the legislatively directed spending item. Please include how it provides a public benefit and why it is an appropriate use of taxpayer funding. Please also demonstrate that the item does not violate Article IV, S 30 of the Michigan Constitution. Legislatively directed funds will be used to provide unlimited access to the Learning Ally Audiobook Solution, a disability accommodation, to schools across the state. The Audiobook Solution provides access to over 80,000 human-read audio versions of textbooks and VoiceText formats for other books for students with disabilities, including those with vision impairments, learning disabilities (such as dyslexia), or physical disabilities that make it difficult to use traditional text. The funds also include launch

sessions for educators and district administrators to ensure they are well equipped to implement the Learning Ally Audiobook Solution into their classroom instruction, afterschool programs, and at home. Learning Ally will designate an Implementation Manager to manage statewide access and implementation. Providing statewide access to the Audiobook Solution will ensure that students with print disabilities – disabilities that impede their ability to engage with written text – will have the accommodation they need in order to be able to keep pace with their peers in the classroom. This spending aligns with the legislature’s bipartisan commitment to supporting students with dyslexia, as demonstrated by the passage of SB567 and SB568 in 2024. Funds will be used exclusively to provide direct services to schools.

9. **Attach documents here if needed:**

Attachments added to the end of this file.

10. **The amount of state funding requested for the legislatively directed spending item.**

2126341

11. **Has the legislatively directed spending item previously received any of the following types of funding? Check all that apply.**

["None"]

12. **Please select one of the following groups that describes the entity requesting the legislatively directed spending item:**

Non-profit organization

13. **For a non-profit organization, has the organization been operating within Michigan for the preceding 36 months?**

Yes

14. **For a non-profit organization, has the entity had a physical office within Michigan for the preceding 12 months?**

No

15. **For a non-profit organization, does the organization have a board of directors?**

Yes

16. **For a non-profit organization, list all the active members on the organization’s board of directors and any other officers. If this question is not applicable, please type ‘n/a.’**

• Therese Llorente – National Board Chair • Elise Darwish – National Board Vice Chair • Shawn Bird, Ed.D – National Board Co-Vice Chair • Mary Beth O'Hagan, Ph.D – National Board Secretary • Rosemarie Loffredo – National Board Treasurer • Alex Hill – Board Member • Dr. Kettisha M. Jones – Board Member • Dan Koken – Board Member

17. "I certify that neither the sponsoring representative nor the sponsoring representative's staff or immediate family has a direct or indirect pecuniary interest in the legislatively directed spending item."

Yes, this is correct

18. Anticipated start and end dates for the legislatively directed spending item:

FY26

19. "I hereby certify that all information provided in this request is true and accurate."

Yes

EVIDENCE-BASED AND PROVEN-EFFECTIVE



The Learning Ally Audiobook Solution

The Learning Ally Audiobook Solution has been proving its effectiveness as a reading accommodation for students with reading deficits for more than 70 years.

There was plenty of existing research by academic experts showing the potential of audiobooks in general, but we wanted something more concrete. That's why we commissioned several efficacy studies designed specifically to evaluate the impact of the Learning Ally Audiobook Solution on students with reading deficits who require an accommodation.

These studies show that Learning Ally offers significant benefits when implemented with fidelity, including:

- » Increased vocabulary, fluency and comprehension
- » Greater self-confidence, motivation, and classroom engagement
- » Higher assessment and high-stakes test scores

"Students tended to see a higher increase in performance with increased usage of Learning Ally."

DEPT. OF ACCOUNTABILITY,
RESEARCH & EVALUATION,
DENVER PUBLIC SCHOOLS

LEARNING ALLY EFFICACY STUDIES

Students that used Learning Ally saw an increase in DRA and EDL scores.

DENVER PUBLIC SCHOOLS EVALUATION OF LEARNING ALLY, 2016 (PRIMARY RESEARCH)

This study conducted by Denver Public Schools found that the 1,000+ students who used the Learning Ally Audiobook Solution with fidelity saw an increase in DRA and EDL scores between 2013-2014 and 2014-2015. As a result, the Department of Accountability, Research, and Evaluation within Denver Public Schools concluded that "Students tended to see a higher increase in performance with increased usage of Learning Ally."

Additionally, the analysis observed that students who used the Learning Ally Audiobook Solution with fidelity are correlated to lower rates of chronic absenteeism as compared to their peers.

Students appeared in the top 25% of state assessment reading scores.

LEARNING ALLY'S IMPACT ON STATE ASSESSMENTS, 2011 (PRIMARY RESEARCH)

This study conducted by Learning Ally's internal evaluation team examined the effect of the Learning Ally Audiobook Solution on school-level state assessments of reading. When comparing rates at which schools appeared in the top 35% of state assessment reading scores, schools that were actively using Learning Ally appeared more frequently than schools that were not.

Students demonstrated statistically significant increases in standard scores for reading skills.

TUFTS UNIVERSITY AUDIOPLUS (LEARNING ALLY) STUDY, 2006 (PRIMARY RESEARCH)

Maryanne Wolf's study, *Evaluating the Effectiveness of Learning Ally's* AudioPlus Books on CD in Conjunction with RAVE-O, A Comprehensive Reading Intervention*, found that students using the Learning Ally* Intervention demonstrated increases on standard scores in multiple areas of important reading skills.

Researchers concluded that: "Over the course of three summer studies, integrating Learning Ally's* AudioPlus books on CD with the RAVE-O minute stories led to significant increases in students' phonetic skills, listening and reading comprehension and fluency. These results were especially encouraging as the intervention took place for such a short period of time (approx. four weeks)." (Wolf, 2006).

Learning Ally* students showed a 38% increase in content acquisition.

THE JOHNS HOPKINS UNIVERSITY EFFECTIVENESS STUDY, 2003 (PRIMARY RESEARCH)

Boyle, Elizabeth A., Rosenberg, Michael S., Connelly, Vincent J., Washburn, Shari G. Brinckerhoff, Loring C., & Banerjee, Manju (2003) investigated the impact of CD-ROM DAISY audio textbooks with advanced navigational capabilities on the learning of students with mild disabilities in grades 9-12. Students who used the audiobooks outperformed peers reading traditional textbooks on a post-test of content learning. As a result of these learning methodologies, students with learning disabilities showed a 38% increase in content acquisition.

LEARNING ALLY EFFICACY STUDIES

8th and 9th grade students made significant advancements in word recognition and reading comprehension.

BALTIMORE PUBLIC SCHOOLS CASE STUDY, LEARNING ALLY, 2004-2005 (PRIMARY RESEARCH)

This study by Connie Dowling and Elyse Kantrowitz involved 35 schools, 300 teachers and a representative sample of students. Teachers submitted evaluations of 166 students, based on Brigance Reading Assessment for Reading Comprehension and Word Recognition results. As a result of the Learning Ally* interventions, students demonstrated significant achievement gains, including:

- An average increase of one full grade level in word recognition and 1.5 grade levels in reading comprehension for 8th grade students.
- An average increase of 1.5 grade levels in both word recognition and reading comprehension for 9th grade students

Learning Ally students made statistically significant increases in their reading rate, word recognition and comprehension.

RUTGERS UNIVERSITY READING STUDY, LEARNING ALLY, 2004 (PRIMARY RESEARCH)

Kuhn, Melanie R. Ph.D., Swan, Aubrie & Groff, Carolyn (2004). Researchers found in this year-long, multi-classroom study that students using Learning Ally's* AudioPlus textbooks reported improvement in reading skills, including word recognition, reading rate and comprehension. The research demonstrated:

- Reading rate in context (measured by QRI-III) for students using the program in the inclusion setting showed statistically significant increases ($p < .05$), whereas the control group remained nearly constant.
- Word recognition in context increased from 94.4% (frustrational reading level) to 96.3% (instructional reading level).
- Teachers noted: The program gave students access to materials for independent work, core curriculum, curriculum supplements and as the basis for content review; as students experienced success with the program, they used it more frequently and their skills improved.
- Researchers conclusion: "the use of Learning Ally's* Learning Through Listening program in the classroom has a positive effect on reading growth for students with mild to moderate learning disabilities, classroom instruction, student and teacher motivation and the affective development of the students. As such, it is an assistive technology that can make a difference in schools.

**Formerly known as RFB&D, Recording for the Blind & Dyslexic.*

AUDIOBOOK RESEARCH

Multisensory reading through audiobooks can improve decoding and comprehension skills. There is a significant body of research conducted independently by leading academic experts that demonstrates the effectiveness of audiobooks as a reading accommodation for struggling students. Here is a topline overview of that research.

When students are able to access words and stories with audiobooks, they are expanding their background knowledge, an essential component in evolving as a student and building the capacity for higher-order thinking skills.

McAllister, T., Whittingham, J., Huffman, S., & Christensen, R. (2014). Developing Independent Readers with Audiobooks: Audiobooks build student confidence and interest in reading. Association for Middle Level Education, 20-21.

The results of a meta-analysis, conducted to determine the effects of read-alouds and text-to-speech tools on reading comprehension of students with reading disabilities, showed a significant effect size of .35 and is consistent with a previous meta-analysis on read-aloud accommodations for students with disabilities. In addition, this study suggests that human-read audio had 50% greater effect on student comprehension versus synthetically narrated audio.

Wood, S. G., Moxley, J. H., Tighe, E. L., & Wagner, R. K. (2017). Does Use of Text-to-Speech and Related Read-Aloud Tools Improve Reading Comprehension for Students with Reading Disabilities? A Meta-Analysis. Journal of Learning Disabilities, 51(1), 73-84. doi:10.1177/0022219416688170

Audiobooks can provide a significant improvement in reading accuracy.

Milani, A., Lorusso, M. L., & Molteni, M. (2010). The effects of audiobooks on the psychosocial adjustment of pre-adolescents and adolescents with dyslexia. Dyslexia, 16(1), 87-97.

Reading audiobooks supports the development of all four language systems: phonological, semantic, syntactic and pragmatic.

Audiobooks can model reading, teach critical listening, build on prior knowledge, improve vocabulary, encourage oral language usage and increase comprehension.

Wolfson, G. (2008). Using Audiobooks to Meet the Needs of Adolescent Readers. American Secondary Education, 36(2), 105-114.

Upper elementary students with reading disabilities showed a greater increase in reading fluency rates when assisted with digital audiobooks.

Esteves, K. J., & Whitten, E. (2011). Assisted Reading with Digital Audiobooks for Students with Reading Disabilities. Retrieved from http://scholarworks.wmich.edu/reading_horizons/vol51/iss1/4/

LEARNING ALLY is a leading education solutions organization committed to transforming the lives of struggling learners. The Learning Ally Audiobook Solution is a proven reading accommodation comprised of human-read audiobooks, student-centric features and a suite of teacher resources. Used in more than 17,000 schools, this solution successfully helps students with reading deficits become engaged learners and reach their academic potential.

Building an Inclusive Reading Environment with the Learning Ally Audiobook Solution

ENSURING NO STRUGGLING READER IS LEFT BEHIND IN A HIGH PERFORMING DISTRICT WITH THE LEARNING ALLY AUDIOBOOK SOLUTION

CHALLENGE

While the Lake Orion Community School District has had a great deal of success, garnering multiple awards from the state of Michigan and National Blue Ribbons for their six elementary schools, some students still lagged below grade level in reading. To ensure that these below-level readers were not lost in the relative success of the district, Lake Orion sought to create a movement around integrated, targeted reading intervention that would provide struggling readers with access to content in the core curriculum across all grades from K-12.

NUMBER OF STUDENTS

7,337

SCHOOLS IN DISTRICT

6

ELEMENTARY SCHOOLS

3

MIDDLE SCHOOLS

1

HIGH SCHOOL

1

ALTERNATIVE SCHOOL

DEMOGRAPHICS

88%

WHITE

2%

BLACK

6%

HISPANIC OR LATINO

2%

ASIAN

2%

TWO OR MORE RACES

4.4%

LOW SES



IMPLEMENTATION

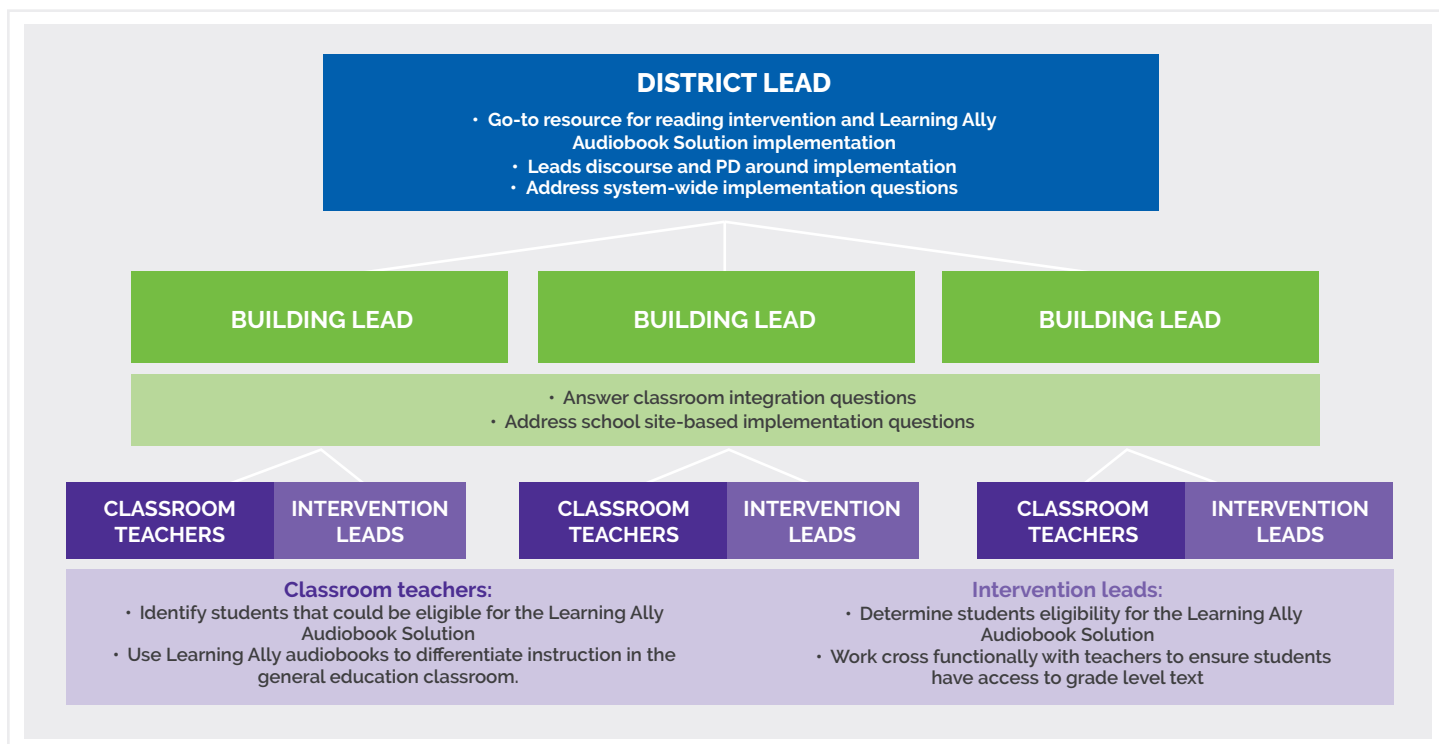
Tamura Oberle, the District Teacher Consultant, became a champion of the Learning Ally Audiobook Solution. With guidance and resources from her Learning Ally Implementation Success Manager, Oberle was able to share the information she knew would pique the interest of principals, teachers, consultants, and parents, and demonstrate not only the purpose of the audiobook solution but also its impact on learning outcomes.

As the Learning Ally Audiobook Solution developed a foothold in Lake Orion's high school, Oberle knew that getting the word out to all of the district's stakeholders was necessary for a successful implementation at the Elementary and Middle School level. The first phase of implementation was logistical and technical issues; Oberle collaborated with the district Technology Department, alleviating download and permissions issues that often prevented teachers from integrating other technology-based tools like the Learning Ally Audiobook Solution into their classroom.

In order to sustain the acceleration of the program through the middle and elementary schools, Oberle became a leader in the discourse around enhancing existing reading intervention and implementing the Learning Ally Audiobook Solution. She facilitated conversations with leaders and teachers to explore and talk about objectives, what their students were learning, and present any information needed to advance the fidelity of usage. Oberle believed that the most powerful strategy to drive effective programming was to continue sharing the good news about the Learning Ally Audiobook Solution and expand the support network, designating a point person in each building to answer any questions regarding the solution and its integration into the classroom and intervention program.

"Kids are
feeling
better about
themselves
and getting
more
interested
in reading."

TAMURA OBERLE,
CERC-SPECIAL
EDUCATION TEACHER
CONSULTANT FOR
LAKE ORION PUBLIC
SCHOOLS



EDUCATOR SPOTLIGHT:

Learning Ally's Educator Of The Year, Julie Gutman

Julie Gutman is the Director of Special Education at Lake Orion Public Schools. Lake Orion Community School District is a leader in the area of reading instruction and reading achievement, having been acknowledged by local, state, and international organizations for student success. It was in collaboration with the Assistant Superintendent of Teaching and Learning and the Special Education Department as well as the ability to think "outside of the box" that many district initiatives were launched, including their RTI model, professional book clubs and the Early Reading Initiative for Kindergarten and First Grade, which have put more than 90% of the district's early elementary schoolers at or above grade level in reading. Described as generous, optimistic, and tireless, Julie "has a gift of being able to see potential in kids and adults," her colleague said. "She can tap into that potential in such a way that people are able to literally shine."



"Julie is as consistent as a compass, and her true north is always with our students."

JULIE GUTMAN'S
COLLEAGUE

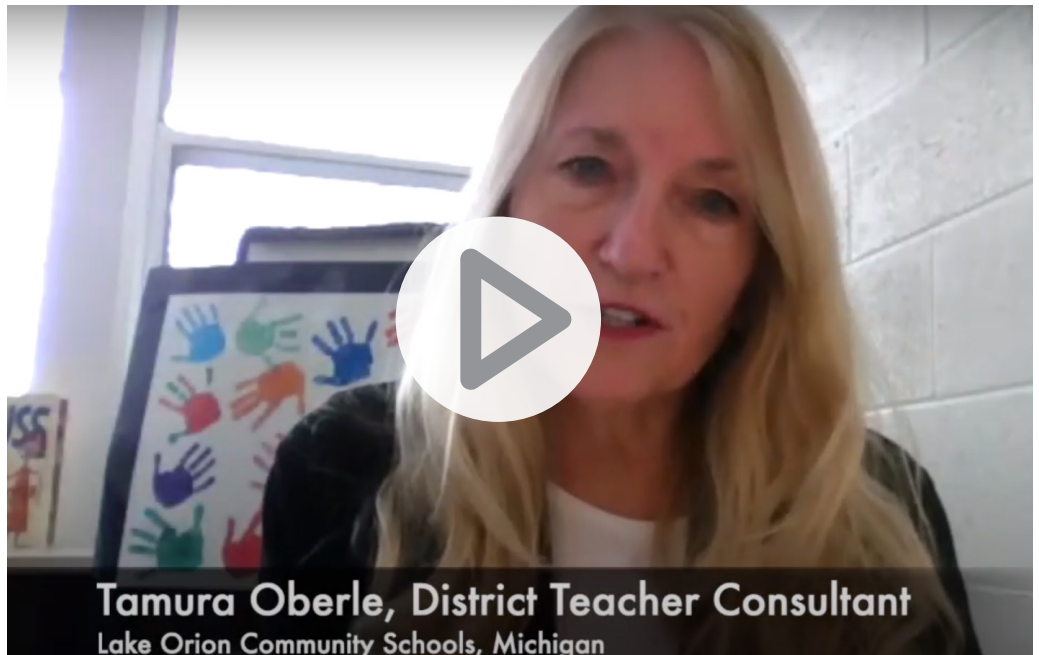
OUTCOME

This deliberate, positive, and supportive approach paid off for Lake Orion, as previously struggling students became engaged readers and learners at a rapid pace. In only the second year of using the Learning Ally Audiobook Solution, every school across the district had adopted it, with more than 600 students registered and almost 90,000 total pages read.

Those voracious reading appetites have generated great results for the district. "Now kids are logging on, they're adding books to their own shelves," Oberle said, describing some of the ways the Learning Ally Audiobook Solution has engaged readers in the district. Students with attention issues read with the audiobook when struggling to engage with the text, moving forward through the confidence; teachers have found content-rich texts for social studies and science among the Learning Ally Audiobook Solution's library of 80,000+ titles; English learners with reading deficits have especially benefited from the increased exposure to vocabulary; and all students have enjoyed the ability to take the solution mobile, listening from home, at the mall or anywhere they like.

"Providing access opens up a huge world. Learning Ally provides access to literature that helps break down barriers—allowing students to participate with classmates."

**TAMURA OBERLE
OF LAKE ORION
DISCUSSES HOW
THE LEARNING
ALLY AUDIOBOOK
SOLUTION IS THE
CRITICAL TOOL
THAT ENSURES
STRUGGLING
READERS ARE
INCLUDED IN A
COMMUNITY OF
LITERACY.**



Tamura Oberle, District Teacher Consultant
Lake Orion Community Schools, Michigan



LEARNING ALLY® IMPACT



2.4M students



24,000 schools



2,950 districts



Who We Are

Learning Ally® is a 75 year old non-profit that works to equip early and struggling readers with the tools they need to succeed. Working with states to deliver our Audiobook Solution (ABS) to the students who need it most, we enable struggling readers including those with print disabilities to keep pace with their district's curriculum to accelerate and improve student learning.

Learning Ally's services are proven to help struggling readers through:

- **Our Library of Over 80,000 Human-Read Audiobooks** – Unlimited access to the largest library of human-read audiobooks curriculum-aligned titles, literature, popular fiction and more
- **Management of Student Progress** – Educators can access the Learning Ally Educator Portal to manage students, assign books, and track their activity
- **Supporting Educators through Professional Development** – Robust professional development offerings around dyslexia awareness, structured literacy in action, and supporting striving readers at home

We currently serve over 2 million students in states across the country, including Illinois, New Jersey, Texas, Massachusetts, North Carolina, and many others.



Learning Ally has given my students with reading disabilities access to text that their peers are reading. It has greatly increased their confidence, which means everything!"

— CASSEY MARSHALL, TEACHER, WIXOM ELEMENTARY SCHOOL, WALLED LAKE CONSOLIDATED SCHOOL DISTRICT, MI

Proposal

We are proposing an allocation of \$2,126,341, which would make the Learning Ally ABS available to schools statewide, including implementation training and support, and professional development.

LEARNING ALLY CONTACT:

Vicky Kawesa vkawesa@learningally.org



Alignment with Michigan's Literacy and Dyslexia Initiatives

Michigan has demonstrated that literacy and support for students with dyslexia are a priority through the passage of Michigan's SB 567 & SB 568. The legislation ensures that students are adequately screened for dyslexia in their early years and that educators are equipped with evidence-based professional development tools to help students with dyslexia and other reading challenges. As Michigan moves into the implementation phase of these initiatives, Learning Ally's ABS and professional learning offerings can ensure that schools have the tools they need to successfully implement this legislation and support student literacy outcomes.

LEARNING ALLY CONTACT:

Vicky Kawesa vkawesa@learningally.org

White Paper on Audiobooks and Reading Achievement

This paper provides a review of the literature on audiobooks in K–12 education. The research included in this review is drawn from journal articles, reports, dissertations, and articles found in SAGE Journals, Education Resources Information Center (ERIC), EBSCO database and Google Scholar. All the above-mentioned search engines were searched for identified key words related to audiobooks and reading achievement. Our research yielded a total of 69 articles.

This white paper describes literature on three topics: the link between proficient reading and listening; the benefits of audiobooks for different types of readers; and a review of the growing empirical evidence related to the impact of audiobooks on comprehension and achievement.

The Link Between Proficient Reading and Listening

The literature on literacy highlights the importance of listening for proficient reading. Gough and Turner (1986) identified proficient reading as the product of decoding and listening comprehension. Listening through a read-aloud or an audiobook introduces new vocabulary and concepts, provides a fluent model for students to emulate, and allows students access to literature that they are unable to read independently (Serafini, 2004). Listening has been found to benefit readers in different age groups. For younger children, Hart and Risley (1995) and later Fernald, Marchman & Weisleder (2013) found that there is a “word gap” that exists in children from low-income homes in comparison to high-income homes where children benefit from a higher quantity of spoken sophisticated vocabulary. Daikidoy and colleagues (2005) found that the relationship between listening and reading comprehension becomes stronger after second grade, after students have mastered their decoding skills. Research on older readers in middle and high school has shown that the influence of listening comprehension on variance in reading comprehension continues to grow over time (Catts, Hogan, & Adolf, 2005).

Furthermore, according to the Report of the Commission on Reading, “Listening comprehension in the fifth grade was the best predictor of performance on a range of aptitude and achievement tests

Suggested citation: Elsayed, R., Ringstaff, C., Flynn, K. (2019). *White Paper on Audiobooks and Reading Achievement*. San Francisco: WestEd.

This White Paper was prepared under C-00014127, from Learning Ally. The content does not necessarily reflect the views or policies of WestEd, nor does mention of trade names, commercial products, or organizations imply endorsement.

in high school.”(Anderson, Hiebert, Scott & Wilkinson, 1985, p. 40). Given this evidence on the importance of listening comprehension, developing listening ability should not be left to students’ natural exposure to vocabulary, but rather it should be developed through deliberate instruction and practice.

The Benefit of Audiobook for Different Types of Readers

The education literature is plentiful with regard to the benefits of audiobooks for different types of readers. Struggling readers, particularly adolescents, school-aged children, and students with impairments and reading disabilities benefit from the use of audiobooks as a scaffolding tool to support reading achievement and enjoyment. In this section, we highlight how audiobooks can support these different types of readers.

Struggling and Reluctant Readers

Audiobooks can be used with adolescent readers to improve their reading fluency, expand their vocabulary, develop their comprehension, and increase their motivation to interact with books (Wolfson, 2008). Furthermore, numerous studies point to the benefit of audiobooks as a remedy for student disengagement with reading (Hartell, 2018; Cahill & Moore, 2016; Gambrell, Palmer, Codling, & Mazzone, 1996; Wolfson, 2008). Joshi and Aaron (2008) delineated a component model of reading that recognizes the psychological components of reading, including motivation and interest. The authors stipulate that audiobooks remove the constraints of word recognition and decoding and allow young and adolescent readers to engage with texts that interest them. A quasi-experimental study explored the impact of book-rich classroom environments and home rereading with and without audiobooks on first-grade students’ reading motivation, comprehension, and fluency. In both treatment conditions, students were introduced to a book sharing activity in the classroom then encouraged to take the books to reread at home two to three times. The treatment group that took audiobooks followed the same procedures of checking out books to reread at home and also took a tape recorder, and audiotape. Students were encouraged to read along with the tape two or three times, either with family or independently. The authors reported statistically significant differences in the daily reading at home with audiotapes condition in comparison to the daily reading at home only in the areas of reading interest, social interaction and behavior with books (Koskinen, Baker, Blum, Bison, Philips, & Creamer, 2000). This finding is important in the context of understanding some of the driving factors for reading achievement. Guthrie and colleagues (2007) confirmed these driving factors when they examined the relationship between achievement, engagement, motivation, and cognitive processes in reading with relevance to classroom contexts. The authors demonstrated that reading motivation predicts growth in reading comprehension.

For struggling readers, audiobooks can be an important component of a comprehensive reading program. For example, Serafini (2004) explained that a great deal of research validates the importance of reading aloud to students, and posits that the act of reading aloud introduces new

vocabulary and concepts, provides a fluent model, and allows students access to literature that they are unable to read independently. This is particularly important for upper elementary, middle school, and high school students. Additionally, Moats (2001) points to the challenges that upper-elementary students with reading difficulties face in accessing grade-appropriate text, which continues into middle and high school. When students cannot read, they do not want to undertake the labored and unsatisfying experience of reading, and thus struggle with vocabulary, sentence structure, text organization, and formal textbook language. Accordingly, audiobooks provide a critical support for repairing and growing their relationship with reading and learning by allowing readers to enjoy and experience literature regardless of their reading ability.

Students with Physical and Cognitive Impairment

Audiobooks provide a pathway for alternative access to literacy which is especially important for readers with physical and cognitive difficulties.

Before their commercial surge, audiobooks had been traditionally used for the blind and visually impaired. As students with visual impairments progress through the grades into upper elementary and middle school years, the demands of reading grow and students are encouraged or taught to supplement their reading of braille with recorded text. Jackson and Presley (2012) explains that audio-supported reading is a powerful means of accessing and making productive use of texts while also emphasizing that audiobooks should be used in an integrated approach to teaching literacy skills. He also cites a meta-analysis on literacy research done by Ferrell, Young, and Cooney (2006) on interventions with blind and visually impaired students in the past 40 years, which found that, despite the advancements made in inclusive placement practices and literacy instruction, the same pedagogical methods being applied today to teach visually impaired children to read are those used in the 1950s. To overcome this stagnation, Jackson and Presley (2012) suggests that learning to listen and the use of braille or print must be brought together under the umbrella of a comprehensive literacy program that creates authentic classroom activities.

Similarly, students with dyslexia benefit from the use of audiobook as it supports readers to access the more demanding texts given to students in the middle and high school years. Moe and Wright (2013), for example, found that when dyslexic students suffer from lower reading frequency, it impacts their ability to read, their vocabulary, and their desire to go to school. The authors examined a study conducted by the Danish Library and Expertise Center for people with print disabilities, and found a positive correlation between dyslexic children's access to and use of accessible digital formats and their reading habits, satisfaction with school, and ambitions for further education.

English Language Learners

Audiobooks can also present opportunities for English learners to engage with their families with literary-rich texts. Such school-home partnerships can significantly affect child learning (Padak & Rasinski, 2006). Skouge, Rao and Boisvert (2007) encourage schools to share bilingual recording of books with parents to provide both a model for parents on how to read aloud to their children and

to also send parents the message that sharing stories and books with their children is a precious gift that will foster in children a love of reading and an attitude for success. Chuang and Wang (2015) also emphasize that listening is a significant and essential source of language input in second language acquisition.

In the next section, we examine the empirical evidence available about the benefits of audiobooks on reading achievement. Our review of the literature indicates that, while limited, there are a number of significant empirical studies that provide evidence of promise about the impact of reading while listening on reading comprehension, achievement, and motivation. We review these empirical studies below.

Empirical Studies on the Impact of Audiobooks

A randomized controlled trial measuring the effect of adding a listening component to literacy instruction found improvements in reading comprehension in ten weeks, and a 33% increase in the rate of learning against the annual expected gain in achievement for that period. The study also found improvement in vocabulary and reading motivation (Flynn, Matlen, Atienza, & Schneider, 2016). The authors suggest that a greater impact on reading achievement may be achieved if a listening component can be added to literacy instruction on a regular basis, both in classrooms and at home.

The U.S. Department of Education's What Works Clearinghouse (WWC) reviewed empirical studies on Read 180, a reading program designed for students in elementary through high school whose reading achievement is below the proficient level (What Works Clearinghouse, 2009). The READ 180 program includes audiobooks with a narrator who models fluent reading and a reading coach who models comprehension, vocabulary, and self-monitoring strategies for successful readers. The WWC review identified seven randomized control trials and quasi-experimental studies that meet the WWC evidence standards with reservations. The seven studies included 10,638 students, ranging from grade 4 to grade 9, who attended elementary, middle, and high schools in Arizona, California, Florida, New York, Ohio, Texas, and Virginia. The studies that were reviewed found potentially positive effects in comprehension and general literacy achievement. The findings affirm that audiobooks can play an instrumental role in literacy instruction programs in elementary through high school.

Similar to the Read 180 program, the Core Knowledge Language Arts (CKLA) literacy initiative included a listening and learning instructional strand that focused on specific topics to build knowledge, vocabulary, and listening skills. CKLA was piloted in 10 public schools in New York City and an additional seven schools throughout the country, including rural and suburban schools. The schools comprised 172 classrooms, 200 teachers, and 4,466 students. The CKLA program views reading as a complex and interconnected process and thus focuses on the mechanics of reading while building essential background knowledge essential to language growth and development. As a result, the program provides a daily listening and learning strand that exposes children to rich and complex texts and engages students in text-based and analytical discussions by making connections

to texts used in classroom activities (NYC Department of Education, n.d.). The results of a three-year longitudinal study showed that CKLA kindergarten to 2nd grade students outperformed their peers in the control school groups on nearly all measures and achieved significantly higher reading achievement. Furthermore, the percentage of students for whom English was a second language ranged from 15-60% (NYC Department of Education, n.d.).

Whittingham and colleagues (2013) studied the impact of the use of audiobooks on struggling readers' skills and attitudes in a school library audiobook club. Their findings indicate that struggling readers' use of audiobooks had a significant positive impact on reading skills and attitudes toward reading. Esteves and Whitten (2011) also found that assisted reading with digital audiobooks improved reading fluency of upper elementary students with reading disabilities, and pointed to the benefits that teachers can promote when using this method in place of sustained silent reading. Furthermore, Milani, Lorusso and Molteni (2010) found in an experimental study that adolescents with dyslexia showed significant improvements in reading accuracy and motivation after using audiobooks for school and leisure reading texts for five months.

Conclusion

Most classroom teachers recognize the nuanced nature of reading comprehension and the influences of many other elements that support or hinder reading. The studies reviewed above highlight the promise of audiobooks when integrated into comprehensive literacy programs on student reading achievement, access, motivation and enjoyment.

Authors and Reviewers

Rasha ElSayed is a Research Assistant in WestEd’s STEM program. She received her master’s degree in International Comparative Education from Stanford University. At WestEd, she works on research supporting teacher professional development programs in science and program evaluations for a variety of K-12 organizations. Prior to joining WestEd, Ms. ElSayed conducted several formative and summative evaluations with non-profits in the Bay Area such as San Jose State University and Challenge Success at Stanford University. Ms. ElSayed has experience in designing and teaching afterschool curricula that focus on STEM and design thinking in East Palo Alto. She has also done school-based work as a principal in a local high school. In that role, she helped build evaluation capacity and systems to support ongoing measurement and evaluation.

Dr. Cathy Ringstaff is a Senior Research Associate in WestEd’s STEM program. In addition to obtaining a doctorate in Educational Psychology from Stanford University, Dr. Ringstaff completed an Ed.S. in evaluation, and was trained as an elementary teacher. She has served as a PI or co-PI on various IES and NSF studies, and has extensive experience conducting research investigating the impact of innovative curricula, including various types of media, on teaching and learning in elementary and middle school classrooms. She has also worked for over a decade evaluating the implementation and impact of informal science curricula at various museums, such as the Lawrence Hall of Science, the Bay Area Discovery Museum, and the Miami Science Museum. She is currently the evaluator of an international project studying embodied cognition in science in informal settings in the US and UK. Before coming to WestEd, she worked for 10 years as lead researcher for the Apple Classrooms of Tomorrow (ACOT) project, and was responsible for conducting research related to technology integration in K–12 classrooms. Dr. Ringstaff has published numerous research papers, presented at conferences, and co-authored *Teaching With Technology: Creating Student-Centered Classrooms*, published by Teachers College Press. She recently published an article about the impact of professional development on K–2 science teaching in the *Journal of Science Teacher Education*.

Dr. Kylie Flynn is a Senior Research Associate in WestEd’s STEM program, Flynn leads multiple federally funded randomized controlled trials (RCTs). Her research interest focuses on testing interventions for students at risk for placement in special education. She serves as Co-Investigator on projects funded by the Institute of Education Sciences: 1) an efficacy study of a social-emotional learning intervention at third grade, 2) an efficacy study of a vocabulary intervention at fourth grade, and 3) a continuous improvement study of an early mathematics intervention. Additionally, Flynn has led large contracts with educational companies, such as Scholastic, Newsela, and Age of Learning. Previously, Dr. Flynn worked at Florida State University (FSU)’s Florida Center for Reading Research on several early literacy and mathematics intervention studies funded by IES and the National Institute of Child Health and Human Development. She also taught reading courses to students in FSU’s special education teacher preparation program. Prior to her research work, Dr. Flynn worked as a special education teacher for thirteen years in CA and FL. She is also writing a *Raising a Reader Handbook for Birth to Three-Year-Olds* for the Silicon Valley Community Foundation.

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