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AUDIO VS VISUAL



Is there a better method of reading?

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How many books have you read this year? Did you start the year like many do, saying you would read more books? Maybe you even had a certain amount per month to challenge and pace yourself. If so, you are not alone.

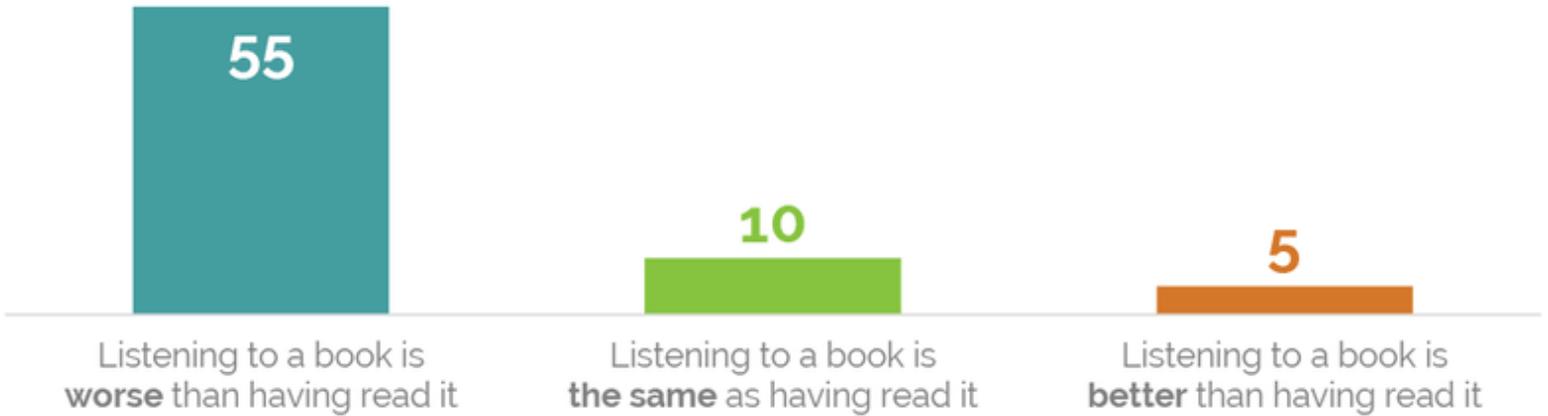
According to a 2019 Pew Research survey, about 27% of adults in the U.S. did not finish a book in the year 2018. I was certainly a part of this 27% in that year. Last year, however, I read the entire Harry Potter series just for the sake of nostalgia and because I never read the books despite watching every adapted movie.

Since then, I have transitioned into being the reader I have never been before and completed over 100 books in one year. This is an accomplishment I have never made before and I would never have been able to do if not for audiobooks.

Most of the "reading" I have done has been in the form of listening to an audiobook and when I admit this to friends I have been met with some controversy. Mentions of my reading habits to friends are received with exaggerated and playful derision. I am often asked "Did you read the book or did you listen to it?" But is there a real difference between the two?

Listening to a book is not as good as having read it

Do you consider listening to an audio version of a book to be the equivalent of having visually read that book? %



[HTTPS://YOUTGOV.CO.UK/TOPICS/LIFESTYLE/ARTICLES-REPORTS/2016/10/18/LISTENING-AUDIO-BOOK-NOT-EQUIVALENT-HAVING-READ-BO](https://yougov.co.uk/topics/lifestyle/articles-reports/2016/10/18/listening-audio-book-not-equivalent-having-read-bo)

Audiobooks have become the fastest growing book format in the last decade as the popularity of platforms like audible and scribed make them more widely available. But this popularity has not translated into a respect for listening to audiobooks as a normalized as a form of reading.

Instead, listening is otherized and even considered a lesser form of absorbing text. Research from YouGov found that 55% of people believe that listening to an audiobook is worse than reading a book when polled about the difference.

"You're not reading, you're listening!" says traditional book loving friends of mine. Like them, most other people who prefer reading traditional physical books often explain that they don't

feel listeners learn as much as they might from reading traditionally or that there is something generally missed out on when not traditionally reading. This suggests that there may be some difference in comprehension or understanding of the text in that form. But what do studies say? Does science agree that listeners are missing out on what readers gain?

It is generally known that there are benefits to reading not only on a knowledge gaining level but also for a good cognitive exercise. Are all those benefits something audio book listeners miss out on? Is reading that much different on a cognitive level?



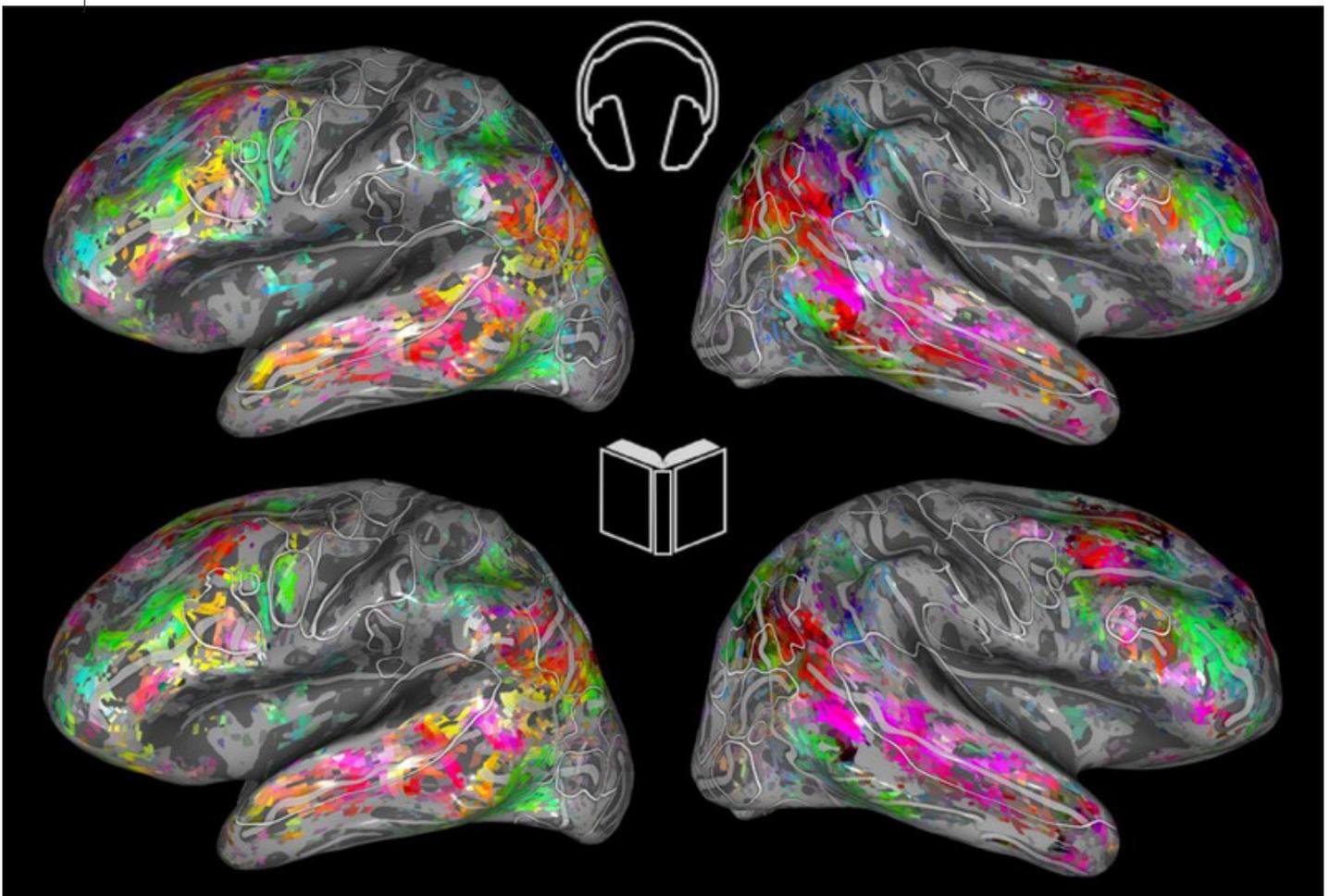
The Research on Comprehension

In terms of how the brain processes these two methods, there are much more similarities than there are differences between the ways the brain activates while listening and reading. Matthew Traxler, a professor of psychology at the University of California, Davis explained to mic.com that the auditory pathway of the brain is more activated while listening and visual pathways are more activated while reading.

This logically follows because a reader is using their eyes to read and a listener is using their ears to hear. However, most other parts of the brain that are activated, as in the frontal lobe which is used for cognition, understanding, and emotions are also activated in both methods of absorbing text.

In fact, a study published in the Journal of Neuroscience comparing brain imaging scans of traditional readers to audiobook listeners found results consistent with some of Traxler's statements. It found that "brains were creating meaning from the words in the same way, regardless if they were listening or reading."

It even showed that "the brain maps for both auditory and visual input created from the data looked nearly identical." This may mean the work being done by the brain to actually understand the text is close enough to be indistinguishable.



[HTTPS://WWW.GALLANTLAB.ORG/BRAINVIEWER/DENIZ2019/](https://www.gallantlab.org/brainviewer/deniz2019/)
IN THE LINK ABOVE, AN INTERACTIVE IMAGE OF THE BRAIN IMAGING SCANS OF THE RESULTS FROM THE STUDY IS AVAILABLE.

It's notable to also mention that we as humans have a longer history of telling stories and teaching orally. Therefore, we are evolutionarily accustomed to learning by auditory means. Reading physically is the newer, less natural method that we as humans have developed to serve the same goal.

Daniel Willingham, a professor of psychology at the University of Virginia, explained to Time magazine "when we're reading, we're using parts of the brain that evolved for other purposes, and we're MacGyvering them so they can be applied to the cognitive task of reading." It then might make sense that in the argument of comparison between for better comprehension, audiobooks should have the better edge.

Perhaps the reason traditional readers feel that comprehension is unmatched is not due to the brain's ability to process audio in this way. Perhaps the concern is about the quality or how well exactly listeners can benefit from listening to text comparatively. Unfortunately, there are very few studies that have been done to evaluate the difference in a qualitative manner and the research that has been done shows mixed results.

An article published in Educational Psychology Review in 2022 reviewed multiple studies on the differences in comprehension between listeners and readers. It found that most studies evaluating comprehension differences say there are no significant differences.

A flaw in some of these studies is that the researchers compared audiobooks to ebooks and not traditionally printed text which may provide different results.

A few studies in the broader review have opposing results, such as one which compared the test scores of a comprehension quiz from students listening to a podcast to results from students reading a lesson on paper. This 2010 study by Daniel and Woody showed results with drastic differences between the two groups. Most experts agree that more research comparing the differences are necessary.

There are many factors that have been disputed that relate to the quality comprehension. One factor Willingham went on to discuss in Time magazine. He suggested that backtracking while reading is important for comprehending and memorizing text. This is a much more common and simple thing to do while reading text.

Willingham explained that "about 10 to 15% of eye movements during reading are actually regressive." Imagine going over the last sentence you read in a book for clarification compared to rewinding an arbitrary amount of time in order to listen to the last statement in an audiobook. The first of those situations is much simpler.



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“BRAINS CREATE MEANING FROM THE WORDS IN THE SAME WAY, REGARDLESS IF YOU ARE LISTENING OR READING.”



Other Factors

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Another factor that is discussed is multitasking. Listeners are able to multitask while hearing an audiobook which may be seen as a benefit, but it is possible that the ability to multitask while listening leads to decreased attention. This decrease in attention means less opportunity for comprehension. Not much research has been done showing evidence for this, however.

People also vary on how they will comprehend due to other characteristics. The article in Educational Psychology Review looked at studies on comparative comprehension of groups that learned English as a second language and other groups that are classified as struggle readers, students reading below their expected developmental reading level. The results showed that comprehension while listening was significantly higher with these groups when compared with traditional reading.

Regarding some of the concerns with comprehension, experts say that practice may improve one's ability to comprehend text read by any method. Reading for deep analysis and understanding is a skill and similarly listening is for the same reasons is a skill set that can be honed and refined.

It is possible with time and practice for listeners to improve these skills and as the world grows more accustomed to audiobook users, the gap between how we think of the readers and listeners may close.

There are other arguments traditional readers may raise are largely due to a subjective preference. These are ideas such as a conflict between the audiobook narrator and the reader's imagination. Even audiobook lovers know that the narrator can make a big difference in opinion on a book.

Conversely, there are also many subjective reasons to benefit the audiobook such as the ability to finish a book much faster. The fact that I read 100 books in a year after reading no books in a year is proof that is possible.



Lastly, there is a semantic argument to be had here. Audiobook listeners like me often say they have “read” a book after finishing an audiobook. This is often the starting point of “do you mean you listened?” responses when talking to friends. While “listen” is the appropriate term for using an audiobook, it feels awkwardly improper to say “I listened to the first Harry Potter book.” So what is the proper term to use?

Most dictionaries define the word read with specification to a written symbol, which might suggest that listeners are wrong to use the term. I am partial to the way audiobook researchers use the term “read” for completed audiobooks when evaluating audiobook practices. In a study published in the *Journal of Documentation*, a researcher defined it as “the human sense used when making meaning from text, with reading by listening suggested for reading done with the help of the ears.”

Ultimately, there are not many objective differences between reading and listening. Studies are largely either inconclusive or show enough benefits to either side of the argument to nearly equalize the two. Much of what drives either readers or listeners to choose their method comes down to personal preference and subjectivity.

My preference remains the audiobook because it is more convenient to me and my current lifestyle, and I will admit that this choice is subjective and may even change in the future. My final recommendation for anyone who has not finished a book in a while is change your method, try reading by listening.

