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## **Using audiobooks in elementary education: a study of teacher perspectives**

### **Korzystanie z audiobooków w edukacji elementarnej: studium perspektywy nauczyciela**

**Abstract:** This article examines the history and impact of audiobooks on education, specifically focusing on their role in supporting children's cognitive development and reading skills. The study provides a comprehensive overview of the origins of audiobooks and their evolution from early recordings to modern digital formats. It also reviews existing research on the benefits and drawbacks of audiobooks in education, highlighting their potential to aid children with reading difficulties and promote engagement with literature. The main study was preceded by an analysis of research on the actual effectiveness of audiobooks in education. The article reports on a survey of 717 elementary education teachers in Poland, examining their attitudes and usage of audiobooks in their work with students. The findings indicate that while a majority of teachers believe in the cognitive benefits of audiobooks, there are differing opinions regarding their impact on independent reading skills. The analysis also reveals associations between demographic variables such as age, seniority, and gender, and teachers' attitudes towards audiobook usage. The article concludes by emphasizing the need for further research to explore the potential of audiobooks in education. Overall, this study contributes to the understanding of the role of audiobooks in educating children and offers insights into teachers' perspectives on their use in the classroom.

**Keywords:** audiobooks, early childhood education, development of reading competences, teachers' attitudes.

## Introduction

Audiobooks, also known as spoken books, have grown significantly in popularity over the past two decades. Their history can be traced back to Thomas Edison's 1878 proposal to augment printed texts with audio recordings (Rubery, 2011). Audiobooks proved invaluable for individuals with visual impairments, illnesses, or limited reading abilities. In 1917, Harper Columbia published the first combination of a printed book and a recording, titled "The Bubble Book", which received accolades (Rubery, 2011).

Radio stations in the early 20th century began featuring spoken literature, with the BBC broadcasting recordings of works by Shakespeare, Dickens, and Joseph Conrad, exposing many listeners to literature (Rubery, 2011). The American government established the National Library Service for the Blind and Physically Handicapped (NLS) in 1931, focusing on producing Braille books. By 1933, the NLS collaborated with the American Foundation for the Blind to distribute audiobooks, which were not exclusively intended for the blind (Rubery, 2011).

Commercial audiobook releases surged in the 1950s and gained momentum in the 1970s with the advent of cassette tapes and portable players like car receivers and walkmans. The term "audiobooks" emerged during this time, originating from "audiocassettes." They have since transitioned to CDs and MP3 recordings available for download, playing a vital role in their present popularity (Rubery, 2011). However, audiobooks are not the dominant form of literary consumption, with only 8% of respondents over the age of 15 reporting their usage in periodic research conducted by the National Library in Poland. In contrast, podcasts, a form of spoken book, have garnered greater interest, with 29% of respondents reporting their use (Chymkowski and Zasacka, 2023).

In addition to audiobooks and podcasts, audio dramas hold significant importance as a form of literature to be listened to. As noted by Sława Bardijewska, "It soon became clear that the radio could serve literature, that it could become a book with sound, which in the phonic version acquired new hidden or absent values in print". Radio plays encompass not only spoken words but also phonic gestures, music, acoustic effects, and the voices of actors. This combination creates a theater of the imagination (Bardijewska, 2001, p. 18).

Audiobooks have been widely employed in both formal and informal education for children and youth, particularly in special education contexts for individuals with visual impairments. Singh and Alexander's review (2022) examined 32 documents, finding that audiobooks alone improved

comprehension more effectively than print among younger students. Combining audiobooks with print benefited identified populations such as struggling readers and English as a Foreign Language learners, enhancing comprehension (Singh and Alexander, 2022).

Research indicates that audiobooks significantly contribute to reading skill development, particularly for visually impaired children who gain access to literature (Walter, 2007). Audiobooks also assist children with dyslexia by supplementing reading aloud, especially when a parent or guardian faces speech difficulties, supporting the child's speech development (Osowicka-Kondratowicz, 2018). Audiobooks enhance auditory attention, facilitate comprehension through narration interpretation, provide access to cognitively appropriate literature, and foster an interest in literature.

Despite their limitations, research on the use of audiobooks in education consistently yields positive conclusions. Therefore, this article aims to present the results of quantitative research conducted among 717 elementary education teachers in Poland to explore their understanding of the potential of utilizing audiobooks in their work with students. This study seeks to determine whether differences in perception regarding the role of audiobooks exist based on factors such as gender, age, seniority, place of work, and others.

### **Literature review**

In recent years, opinions have been divided on the value of audiobooks for children's cognitive and literacy development. However, some researchers have argued that audiobooks can offer several benefits for children, especially those who struggle with reading difficulties. For instance, Baskin and Harris (1995) suggested that audiobooks provide a model for inflection, tone, rhythm, pauses, silences, and different voices. Additionally, the emotional content of the narrative adds to the pleasure of listening, conveys the content of the book more lucidly and vividly, and transports captivated listeners into another world. Furthermore, most audiobooks available on the market are recorded by professional actors, and listening to audiobooks as a family can improve relationships between parents and children.

Researchers such as Beers (1998) and Chen (2004) have suggested that audiobooks can act as a "scaffolding" tool that enables reluctant or bilingual students to read beyond their actual level. Additionally, Chen (2004) and Wolfson (2008) emphasized that audiobooks can enable children who read slowly to actively participate in classroom activities. Milani, Lorusso and Molteni (2010) conducted a study on dyslexic teenagers, where one group used audiobooks, while the other group used regular books. After five months

of experimental training, the group using audiobooks showed significant improvement in reading accuracy, characterized by less impairments related to emotional and behavioural disorders, as well as improved school performance, greater motivation, and involvement in school activities.

Several studies have compared the effects of reading printed books versus audiobooks. Varley (2002) argued that while reading a text is more intimate than listening, engaging with audiobooks stops negative reading habits and allows the reader to hear the book exactly as it was written. Johnson (2003) claimed that audiobooks stimulate a higher level of the reading process and increase motivation to explore books. Audiobooks have also been praised for their ability to provide readers with higher-level content (Cahill and Richey, 2015) and for their adaptability as an individual or group activity (Clark, 2007).

However, some researchers have raised concerns about the use of audiobooks in children's education. Rubbery (2011) pointed out that listening to audiobooks is a passive activity, imposes the way of narration, turns off the "inner voice," and does not require the same level of concentration as reading a book. Rubbery also claimed that audiobooks distort some literary works by reducing their content, and the pace of listening to audiobooks is independent of the listener's needs. It is important to take a critical look at these concerns, as most of them lack scientific justification. Of course, stripped-down audiobooks can distort literary works, and the lector's voice may suggest a specific interpretation of the text. Audiobooks are also devoid of visual elements and bibliographies, and the listener has no control over the speed of reading.

To organize existing research on the topic, an analysis of 45 articles and books published from 2000-2022 was conducted, which focused on the use of audiobooks in human cognitive development, particularly in the development of reading competence. The analysis identified ten studies that covered various developmental aspects, as presented in the table below. Overall, the research suggests that audiobooks can offer numerous benefits for children, particularly for those who struggle with reading difficulties. However, further research is needed to explore the potential disadvantages of using audiobooks in children's education.

**List 1.** Studies on Reading and Listening Interventions for Improving Comprehension, Fluency, Vocabulary, and Motivation

Study	Sample	The goal of the study	Major findings
<b>Comprehension</b>			
Le Fevre, Moore & Wilkinson (2003)	Four groups of students (6 per group) with poor decoding skills and comprehension	Examine the effects of modified reciprocal teaching intervention using tape-assisted reciprocal teaching on comprehension	Improved application of cognitive and metacognitive strategies and enhanced comprehension for poor decoders. Students with adequate decoding skills also showed improvements in comprehension.
Diergarten & Nieding (2015)	128 participants across four age groups	Investigate emotional inferences in audiovisual texts and audiobooks	Children (5-10 years old) and adults were able to construct emotional inferences from both film clips and audiobooks.
<b>Fluency</b>			
Esteves & Whitten (2011)	20 upper elementary students with reading disability	Compare assisted reading with digital audiobooks to sustained silent reading (SSR)	Assisted reading with digital audiobooks resulted in a significant increase in reading fluency compared to SSR.
Tusmagambet (2020)	28 ninth-grade learners of English as a foreign language	Assess the effects of audiobooks on reading fluency	The experimental group using audiobooks outperformed the control group in reading speed while maintaining substantial comprehension.
Chang & Millett (2014)	Three groups of Level 2 students	Examine the effect of extensive listening to audio graded readers on L2 listening fluency	The reading plus listening group demonstrated the most consistent and significant outcome compared to the reading-only and listening-only groups.
<b>Vocabulary</b>			
Friedland, Gilman, Johnson & Demeke (2017)	46 students (8-12 years old)	Explore the development of reading fluency through Reading While Listening (RWL)	Significant improvement in word count per minute in the treatment group compared to the control group.
<b>Motivation</b>			
Whittingham, Huffman, Christensen & McAllister (2013)	21 struggling readers in grades 4 and 5	Determine the impact of audiobooks on struggling readers	Audiobooks had a positive impact on reading skills and attitudes toward reading, as indicated by standardized test data and interviews.
<b>Students with special needs</b>			
Milani, Lorusso & Molteni (2010)	Two groups of 20 adolescents with developmental dyslexia	Investigate the benefits of audiobooks for preadolescents and adolescents with dyslexia	Experimental group showed significant improvement in reading accuracy, reduced unease and emotional-behavioural disorders, improved school performance, and increased motivation and involvement in school activities.

## Methods

The results of the research conducted so far suggest optimistically that audiobooks can contribute to the development of students' reading skills. We found it interesting how Polish teachers perceive this issue and whether they use audiobooks in their work with students. The study was conducted among a sample of 717 elementary education teachers from diverse regions of Poland. An electronic questionnaire comprising closed-ended questions on a Likert scale was employed to evaluate the use of audiobooks in working with children. The questionnaire was sent to all schools and kindergartens in Poland, and the selection of the sample should be described as voluntary, which means that the results cannot be fully extrapolated to the general population, but they show specific trends and population differences. The statements included in the questionnaire were as follows: "The use of audiobooks in education supports the cognitive development of children," "Audiobooks support children with learning difficulties," "Listening to audiobooks by children negatively affects the development of their independent reading skills," "Listening to audiobooks improves the quality of children's reading aloud," and "I use audiobooks when working with children." The survey was completed anonymously. The questionnaire was developed by the research team, taking into account the issues identified in the literature on the use of audiobooks in education, and was tested for reliability and relevance. In the evaluation of the measurement instrument's reliability, the questionnaire exhibited a Cronbach's alpha value of 0.6. This value suggests a satisfactory level of internal consistency, affirming the dependability of the questionnaire's results for the intended study.

Data analysis was conducted using the SPSS statistical program. ANOVA factor analysis was employed to explore the interrelationships between the research variables, including gender, age, professional experience, degree of professional promotion, and place of work.

## Participants

A total of 717 participants took part in this study. 669 were women and 48 were men. This disproportion results from the gender inequality in the profession of elementary education teacher in Poland. The data made available by Statistics Poland (2021) indicate that in the school year 2020/2021 women accounted for 87% of teachers of pre-primary establishments and primary schools (not only in elementary part of them) (98% in case of pre-primary establishments) and this disproportion tends to increase. Therefore, it may be assumed that the distribution of respondents by gender is analogous

to the nationwide distribution at elementary schools. This uneven division is necessary for the sample to be representative. The surveyed teachers were aged between 25 and 60. The mean age of the teachers was 43 (SD=9.8). In terms of seniority, the largest group were teachers working in educational institutions for over 15 years (52.6%). The remaining groups were: seniority up to 5 years: 15.8%, 5-10 years: 19.4% and 11-15 years: 12.3%. The research was conducted before the legal change in the field of professional promotion in Poland, so categories from before 2022 were used. Certified teachers accounted for 46.2% of the respondents, contract teachers: 24.5%, appointed teachers: 20.4% and trainees: 8.9%. The place of work (villages and towns of various sizes) was represented more or less by the same number of surveyed teachers and in each case it was above 21%. The largest group of respondents were elementary education teachers working in public schools (71.7%).

## **Results**

This article's objective was to investigate the attitudes towards the use of audiobooks in education. The data obtained from the respondents revealed 5 key statements. The majority of respondents (49.6%) expressed their belief that audiobooks can support the cognitive development of children. Among them, 42.8% agreed with the statement, and 6.8% strongly agreed. Additionally, a significant proportion of respondents (67.9%) believed that audiobooks can aid children with learning difficulties. Of those respondents, 57% agreed, and 10.9% strongly agreed. However, a considerable percentage of respondents (almost 40%) held the opinion that listening to audiobooks may negatively impact children's independent reading skills. Of those, 36.5% agreed, and 3.1% strongly agreed. Regarding the effect of audiobooks on reading aloud skills, most teachers (41.7%) did not express an opinion or had no knowledge, while 47.5% of the teachers reported using audiobooks when working with children.

**Table 1.** Statistical description of opinions on audiobooks in elementary education (N=717)

		The use of audiobooks in education supports the cognitive development of children.		Audiobooks support children with learning difficulties.		Children's listening to audiobooks negatively affects their development of independent reading skills.		Listening to audiobooks improves the quality of children's reading aloud.		I use audiobooks when working with children.	
		<i>frequency</i>	<i>%</i>	<i>frequency</i>	<i>%</i>	<i>frequency</i>	<i>%</i>	<i>frequency</i>	<i>%</i>	<i>frequency</i>	<i>%</i>
<b>n</b>	<b>Important</b>	717 0		717 0		717 0		717 0		717 0	
	<b>Missing data</b>										
Standard deviation		0,935		0,834		0,796		0,857		0,802	
I completely disagree		6	0,8	7	1,0	49	6,8	42	5,9	73	10,2
I do not agree		77	10,7	63	8,8	200	27,9	143	19,9	140	19,5
I neither agree nor disagree		278	38,8	160	22,3	184	25,7	299	41,7	164	22,9
I agree		307	42,8	409	57,0	262	36,5	203	28,3	298	41,6
I definitely agree		49	6,8	78	10,9	22	3,1	30	4,2	42	5,9
Total		717	100,0	717	100,0	717	100,0	717	100,0	717	100,0

Source: own study.

Subsequently, the data was analysed to explore the relationship between demographic variables and variables arising from the respondents' professional experience.



**Table 2.** Comparison of the declared use of audiobooks in work with children in elementary education in terms of demographic variables. t and chi-square test results

Declared use of audiobooks in work with children at the elementary education level					
	YES (n=334)	NO (n=200)	I DON'T KNOW/ NEITHER YES OR NO (n=164)	Test statistics	p
<b>Age</b> M (SD)	42,83 (9,613)	39,39 (9,498)	42,94 (10,260)	t=4,023 (for 'YES' and 'NO' groups)	<0,001
<b>Sex</b>					
Woman	321 (48%)	195 (29,1%)	153 (22,9%)	chi <sup>2</sup> =1,718	0,424
Man	19 (39,6%)	18 (37,5%)	11 (22,9%)		
<b>Work experience as a teacher</b>					
up to 5 years	37 (32,7%)	56 (49,6%)	20 (17,7%)	chi <sup>2</sup> =37,835	<0,001
5-10 years	70 (50,4%)	44 (31,7%)	25 (18%)		
11-15 years old	44 (50%)	13 (14,8%)	31 (35,2%)		
over 15 years old	189 (50,1%)	100 (26,5%)	88 (23,3%)		
<b>Degree of professional advancement</b>					
Trainee teacher	18 (28,1%)	25 (39,1%)	21 (32,8%)	chi <sup>2</sup> =34,236	<0,001
Contract teacher	83 (47,2%)	57 (32,4%)	36 (20,5%)		
Appointed teacher	67 (45,9%)	60 (41,1%)	19 (13%)		
Certified teacher	172 (52%)	71 (21,5%)	88 (26,6%)		
<b>Workplace</b>					
Kindergarten	61 (49,2%)	24 (19,4%)	39 (31,5%)	chi <sup>2</sup> =11,971	0,018
Private primary school	42 (53,2%)	24 (30,4%)	13 (16,5%)		
Public elementary school	237 (69,7%)	165 (32,1%)	112 (21,8%)		
<b>The town where the school/kindergarten is located</b>					
Village	83 (47,2%)	42 (23,9%)	51 (29%)	chi <sup>2</sup> =23,565	<0,001
Town below 50,000 residents	86 (42,2%)	78 (38,2%)	40 (19,6%)		
A town with 50-200 thousand inhabitants	77 (51,7%)	30 (20,1%)	42 (28,2%)		
Town over 200,000 residents	94 (50%)	63 (33,5%)	31 (16,5%)		

Source: own study.

The analysis of the data using *t*-tests and post hoc tests revealed a statistically significant relationship between age and the reported usage of audiobooks in elementary education. Specifically, older individuals were found to more frequently declare the use of audiobooks in this context. This finding was accompanied by a strong effect, as indicated by a substantial effect size ( $\eta^2=0.292$ ). The variable of age accounted for approximately 29% of the variability observed in the cases examined.

**Table 3.** One-way ANOVA - test F results

Age and declaration of using audiobooks in elementary education (one-way ANOVA - test F) (n=698; df between groups=34; df within groups=663).								
	YES n=334	NO n=200	I DON'T KNOW n=164	Analysis of between- group effects	F test stats		Effect size $\eta^2$	Effect size $\omega^2$
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>F</i>	<i>p</i>		
Age	42,83 (9,613)	39,39 (9,498)	42,94 (10,260)	1>2	8,035	<0,001	0,292	0,255
Work experience and declaration of using audiobooks in elementary education (one-way ANOVA - test F) (n=552; df between groups=3; df within groups=549).								
	YES n=340	NO n=213	Analysis of between- group effects		F test stats		Effect size $\eta^2$	Effect size $\omega^2$
	<i>M (SD)</i>	<i>M (SD)</i>			<i>F</i>	<i>p</i>		
Seniority 1: up to 5 years 2: 5-10 years 3: 11-15 years 4: over 15 years old	3,13 (1,088)	2,74 (1,291)	1>2		9,138	<0,001	0,048	0,042
Age vs opinion on whether the use of audiobooks supports the cognitive development of children in elementary education (one-way ANOVA - test F) (n=698; df between groups=34; df within groups=663).								
	YES n=334	NO n=200	I DON'T KNOW n=164	Analysis of between- group effects	F test stats		Effect size $\eta^2$	Effect size $\omega^2$
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>F</i>	<i>p</i>		
Age	43,42 (9,9)	43,68 (7,755)	39,35 (9,817)	1>2	8,923	<0,001	0,314	0,278
Gender vs opinion on whether the use of audiobooks supports the cognitive development of children in elementary education (one-way ANOVA - test F) (n=698; df between groups=34; df within groups=663).								
	YES n=334	NO n=200	I DON'T KNOW n=164	Analysis of between- group effects	F test stats		Effect size $\eta^2$	Effect size $\omega^2$
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>F</i>	<i>p</i>		

Sex 1: woman 2: man	1,1 (0,25)	1,06 (0,239)	1,02 (0,146)	1>2	17,372	<0,001	0,024	0,022
<b>Work experience as a teacher and the opinion on whether the use of audiobooks supports the cognitive development of children in elementary education (one-way ANOVA - test F) (n=716; df between groups=3; df within groups=713).</b>								
	<b>YES n=356</b>	<b>NO n=83</b>	<b>I DON'T KNOW n=164</b>	<b>Analysis of between- group effects</b>	<b>F test stats</b>		<i>Effect size <math>\eta^2</math></i>	<i>Effect size <math>\omega^2</math></i>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>F</i>	<i>p</i>		
Seniority	3,15 (1,095)	3,35 (0,981)	2,74 (1,241)	1>2	7,614	<0,001	0,031	0,027
<b>Age vs opinion on whether listening to audiobooks by children negatively affects the development of their independent reading skills (one-way ANOVA - test F) (n=698; df between groups=34; df within groups=663).</b>								
	<b>YES n=334</b>	<b>NO n=200</b>	<b>I DON'T KNOW n=164</b>	<b>Analysis of between- group effects</b>	<b>F test stats</b>		<i>Effect size <math>\eta^2</math></i>	<i>Effect size <math>\omega^2</math></i>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>F</i>	<i>p</i>		
Age	40,92 (9,365)	44,65 (9,49)	39,60 (10,207)	1>2	7,019	<0,001	0,265	0,227
<b>Age vs opinion on whether listening to audiobooks by children negatively affects the development of their independent reading skills (one-way ANOVA - test F) (n=716; df between groups=2; df within groups=714).</b>								
	<b>YES n=284</b>	<b>NO n=249</b>	<b>I DON'T KNOW n=184</b>	<b>Analysis of between- group effects</b>	<b>F test stats</b>		<i>Effect size <math>\eta^2</math></i>	<i>Effect size <math>\omega^2</math></i>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>F</i>	<i>p</i>		
Seniority	2,92 (1,201)	3,41 (0,857)	2,64 (1,302)	1>2	26,674	<0,001	0,070	0,067

Source: own study.

The results of the *t*-test and post hoc test indicated that seniority among teachers was also found to be statistically significant. Specifically, individuals with more than 11 years of teaching experience (11-15 years and 15 years) were more likely to report the use of audiobooks in their work with children compared to those with less than 10 years of teaching experience (below 5 years and between 5 and 10 years). The statistical analysis yielded a significant *t*-value ( $t=0.242, p<0.001, F=17.058$ ). However, it should be noted that the effect size associated with this finding was weak (0.048), explaining less than 5% of the observed cases.

Regarding other demographic variables, no statistically significant differences were observed based on the *t*-tests and post hoc tests.

The results of the *t*-tests and post hoc tests revealed several statistically significant findings related to demographic variables. Firstly, the age of the respondents was found to be statistically significant. Middle-aged individuals were more likely to believe that audiobooks support the cognitive

development of children compared to younger individuals. This finding exhibited a strong effect, with age accounting for approximately 29% of the observed cases (Table 3).

Secondly, the gender of the respondents was also found to be statistically significant. Specifically, men were more inclined to believe that audiobooks can support the cognitive development of children compared to women. However, the effect size associated with this finding was weak, with gender explaining approximately 2% of the cases.

Furthermore, the analysis indicated that seniority among teachers was statistically significant. Teachers with more than 10 years of experience were more likely to express a strong opinion regarding the potential of audiobooks to support the cognitive development of children. Nevertheless, the effect size for this finding was weak, with teaching experience explaining approximately 3% of the cases.

A similar pattern emerged concerning the size of the town where the surveyed teachers worked. Teachers employed in rural areas and large cities (with a population over 200,000) were more likely to hold positive views about the role of audiobooks in supporting children's cognitive development. However, the effect size in this case was weak as well, with the size of the town explaining only 3% of the cases.

The *t*-tests and post hoc tests revealed that the age of the respondents is statistically significant in relation to their attitudes towards the use of audiobooks in education. Middle-aged individuals (around 40 years old) more frequently express a belief that listening to audiobooks by children negatively affects the development of their independent reading skills compared to older individuals (over 44 years old). This finding indicates a strong effect, with age accounting for approximately 26% of the observed cases ( $\eta^2=0.265$ ).

Secondly, the professional experience of the respondents was found to be statistically significant. Individuals with more than 10 years of work experience were more likely to disagree with the statement that listening to audiobooks by children negatively affects the development of their independent reading skills, compared to those with shorter work experience (10 years and less). However, the effect size associated with this finding was weak, with professional experience explaining approximately 7% of the cases.

Additionally, differences were observed based on teachers' professional advancement. Appointed and certified teachers were less likely to agree with the statement, while trainees and contract teachers were more likely to have no opinion. This finding was statistically significant ( $F=19.1$ ;  $p<0.001$ ), with

professional advancement explaining about 5% of the cases. The effect size for this finding was also weak ( $\eta^2=0.051$ ).

Furthermore, differences were found among teachers of different types of settings (kindergartens, private and public schools). Kindergarten teachers were more likely than primary school teachers to believe that listening to audiobooks by children negatively affects the development of their independent reading skills. This finding exhibited a medium effect, with the type of setting explaining approximately 12% of the cases ( $\eta^2=0.126$ ) (Table 4).

Similar differences were observed between teachers working in rural areas and those in cities of various sizes. Teachers in rural areas were more likely than teachers in cities, especially smaller ones, to believe that listening to audiobooks by children negatively affects the development of their independent reading skills. This finding exhibited a medium effect, with the location of the workplace explaining approximately 15% of the cases ( $\eta^2=0.152$ ) (Table 3).

Furthermore, the *t*-tests and post hoc tests revealed that the gender of the respondents is statistically significant in relation to their beliefs about audiobooks supporting children with learning difficulties. Men were found to be more likely than women to hold this belief. The analysis of variance (ANOVA) confirmed this relationship ( $F=14.579$ ;  $p<0.001$ ). The effect size for this finding was medium, with gender accounting for approximately 14% of the observed cases ( $\eta^2=0.141$ ).

Moreover, the seniority of the respondents was also found to be statistically significant. Teachers with 5-10 years of work experience were the least likely to believe that audiobooks support children with learning difficulties, compared to beginner teachers (less than 5 years) and those with more than 11 years of experience. The ANOVA analysis confirmed this relationship ( $F=7.344$ ;  $p<0.001$ ). The effect size for this finding was medium, with seniority explaining approximately 17% of the observed cases ( $\eta^2=0.173$ ).

Regarding opinions on whether listening to audiobooks improves the quality of reading aloud in children, the seniority of the respondents was found to be statistically significant. Beginning teachers with less than 5 years of work experience were less likely than teachers with at least 11 years of experience to believe in the positive impact of audiobooks on the quality of children's reading aloud. The analysis of variance (ANOVA) confirmed this relationship ( $F=13.263$ ;  $p<0.001$ ). The effect size for this finding was medium, with seniority explaining approximately 5% of the observed cases ( $\eta^2=0.053$ ).

Furthermore, teachers with the degree of "appointed teacher" were found to agree with the statement about the positive impact of audiobooks

on reading aloud more often than other groups. The ANOVA analysis also supported this relationship ( $F=13.892$ ;  $p<0.001$ ,  $\eta^2=0.055$ ).

## Discussion

The purpose of primary school education, as outlined in the Core Curriculum for General Education, is to cultivate critical readers who possess a clear sense of their objectives and who, over time, can develop the capacity to interpret literary works and refine their interests and broad reading competency. It is incumbent upon schools and teachers to facilitate students' direct engagement with books and to instil in them a sense of responsible reading. Research on early-school-aged children's reading habits (Bartosik, 2001; Krason, 1999) indicates that children often lack the desire to read and do so only under compulsion. They are not impressed with the literature covered in school. The challenge for beginning readers is that the literature that interests them is not yet accessible for independent reading, and their low reading skills constrain them to short, simple literary forms that bore them. The use of audiobooks in education enables children to encounter literature that they are not yet capable of reading independently. Despite the absence of research indicating that listening to books undermines students' independent reading skills, many teachers are hesitant to incorporate audiobooks into school or extracurricular education.

The data obtained from the respondents in the study reveals mixed attitudes towards the use of audiobooks in education. Similar results were obtained by other research, such as Moore & Cahill (2016). While almost half of the respondents believe that audiobooks can support cognitive development, almost 40% of them believe that audiobooks may negatively impact children's independent reading skills. However, a significant proportion of respondents believe that audiobooks can aid children with learning difficulties, indicating that there may be a benefit to using audiobooks as an assistive technology for certain students.

Despite the mixed attitudes, a majority of teachers reported using audiobooks when working with children. Age and seniority are significant demographic variables affecting teachers' attitudes towards audiobooks in elementary education, with middle-aged and experienced teachers more likely to support the use of audiobooks and disagree with the belief that audiobooks negatively affect reading skills. Gender and town size do not appear to have a significant impact on teachers' attitudes towards audiobooks.

It is interesting to note that less experienced teachers less often view audiobooks as valuable educational tools. Most of them are indifferent. It

appears that teachers did not fully consider the educational possibilities of audiobooks. Perhaps they employ modern multimedia and audiovisual aids more frequently than strictly auditory tools. This finding underscores the importance of academic teachers showing pedagogy students the possibilities of using various media in education, including audio, which can aid in the development of auditory attention and become a kind of theatre of imagination.

The study highlights the importance of weighing the pros and cons of using audiobooks and considering the individual needs of students when deciding whether or not to incorporate this technology into teaching practice. Future teachers should be knowledgeable about the potential benefits and drawbacks of audiobooks and approach their use in the classroom with care and consideration for their students' needs and learning styles. The findings support the literature review, which indicates that while there may be benefits to using audiobooks in education, there are also concerns regarding their potential negative impact on independent reading skills.

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