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Effects of Audiobooks on EFL Learners' Reading Development: Focus on Fluency and Motivation

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This study examined the effects of an intervention using audiobooks for the development of reading fluency, in terms of reading speed, reading comprehension, and motivation to read among Kazakhstani English as a foreign language (EFL) ninth-grade learners in the K–11 system. Silent reading with audiobooks (experimental group) and silent reading only (control group) were compared with a mixed-method study design, a reading motivation questionnaire, and a semi-structured interview. Quantitative data analysis was conducted using analysis of covariance (ANCOVA). The experimental group was found to significantly outperform the control group in reading speed while preserving substantial comprehension of the texts. The results further revealed that, while both groups' motivation level increased, no statistically significant difference was found between the experimental and control groups, suggesting that the use of audiobooks was not superior to silent reading for motivation enhancement. Nevertheless, a qualitative analysis of data obtained from the interviews revealed that the use of audiobooks had an overall positive effect on students' attitudes toward the use of audiobooks and reading comprehension. The study concludes with a discussion of limitations and suggestions for future research.

Key words: second language reading fluency, second language reading motivation, reading fluency instruction, audiobooks

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1. INTRODUCTION

Reading, one of the four main components of language learning, is of paramount importance for academic success in a foreign language (FL) learning context. However, it is also true that FL learners experience significant difficulties in comprehending texts, which consequently results in poor reading skills, and fosters a negative attitude toward reading practice (O'Day, 2002). Among the crucial component skills of reading comprehension is the ability to read fluently (Grabe, 2009; Samuels, 2002). Fluent reading is especially important in an academic setting (Grabe, 2009), where students are required to digest greater amounts of reading materials.

Automaticity Theory (LaBerge & Samuels, 1974) sheds light on the components of fluency and the significance of fluency instruction. From this theoretical perspective, it is assumed that automated word recognition skills will significantly reduce the load of working memory, allowing it to be used for higher cognitive processes such as inference-making. However, at the beginner level, gaining automaticity in word recognition can be difficult given that beginner-level learners lack the ability to simultaneously perform the multiple tasks required for successful reading. In other words, beginner-level second language (L2) readers are prone to performing various tasks in a sequential order rather than simultaneously. Therefore, it is postulated that developing one skill (e.g., reading fluency) may result in the strengthening of other skills (e.g., integrating information) required for achieving efficient reading.

Another key concern of the present study is motivation to read in English. The research on motivation has well documented the essential role of motivation in reading achievement and increasing the amount of reading (e.g., Anderson, Wilson, & Fielding, 1988; Guthrie & Humenick, 2004; Guthrie et al., 2004; Wigfield & Guthrie, 2000). Moreover, available research on L2 reading motivation shows a close link between motivation to read and reading comprehension (e.g., Dhanapala & Hirakawa, 2016; Hayashi, 2015; Kim, 2011; Lee, 2015). Given that motivation is a key predictor of reading achievement, examining ways to foster reading motivation "deserves" attention in research (Grabe, 2009, p. 182).

To date, research has attested that independent reading positively influences multiple aspects of reading development (e.g., vocabulary growth, motivation, fluency, and expansion of world knowledge). For FL learners especially, reading is necessary input to enhance language skills. However, considering that it might be difficult for teachers to provide necessary scaffolding outside of classroom hours, independent L2 reading may be a challenging goal to achieve. Lack of appropriate scaffolding may in turn cause learners to insufficiently practice independent reading, leading to fewer opportunities to develop reading fluency. At the same time, less fluent readers read less, which in turn may

significantly inhibit their reading abilities such as constructing meaning, inference making, and increasing vocabulary knowledge, to name but a few. In such a vicious circle, students may continually fail to achieve reading proficiency. Moreover, when students lack reading experience or struggle to read, they experience unwillingness to read at all, and become demotivated readers.

Audiobooks can be one promising way to offer appropriate scaffolding for independent L2 reading, especially for those who are struggling to achieve fluent and effective reading abilities (Beers, 1998). This chimes with Vygotsky's (1978) zone of proximal development (ZPD) concept, according to which it is assumed that a learner can progress from their current level to a higher level with a help of an expert. The audiobooks, therefore, may serve as a 'more proficient' aid, enabling a learner to achieve more than they could accomplish alone. In addition, audiobooks may attract students' interest, thereby providing increased opportunity to enjoy a large amount of reading. As such, previous studies have reported that incorporation of audiobooks in reading instruction results in positive attitudes toward reading (e.g., Beers, 1998; Chen, 2004; Koskinen et al., 2000). Moreover, while considerable research on the use of audiobooks exists in first language (L1) settings, mostly with struggling monolingual readers, very few have been conducted with regard to the L2 (e.g., O'Day, 2002; Taguchi, Gorsuch, Takayasu-Maass, & Snipp, 2012; Taguchi, Takayasu-Maass, & Gorsuch, 2004; Woodall, 2010), and none involving Kazakhstani EFL learners.

This study differs from the aforementioned previous L2 studies in several important aspects. Specifically, previous studies either did not use a control group (e.g., O'Day, 2002; Taguchi et al., 2012), or if they did, the students had the opportunity to read the texts several times (e.g., Blum et al., 1995; Taguchi et al., 2004), thus making it unclear whether the positive results should be attributed to the effect of audiobooks or to other uncontrolled factors, such as repeated exposure to the texts. Moreover, this study targets ninth-grade K – 11 participants, to whom the results from younger learners (e.g., Blum et al., 1995; Koskinen et al., 2000; Mestres, Baro, & Garriga, 2019; Tragant & Vallbona, 2018) or university students (e.g., Taguchi et al., 2004; Taguchi et al., 2012) may not be applicable. Furthermore, due to the absence of any studies addressing the reading fluency and/or motivation of Kazakhstani EFL learners using audiobooks, this study stands to contribute to research on English Education in Kazakhstan.

2. LITERATURE REVIEW

The role of audiobooks in developing reading fluency and motivation is the main focus of the present study. The first section presents a brief examination and review of the

literature concerning the use of audiobooks in language learning. Next, a review of the research on reading fluency development, including an operational definition, is presented. Lastly, prior studies pertaining to reading motivation are discussed.

2.1. The Use and Benefits of Audiobooks in Language Learning

The use of audiobooks described in this study, in essence, is similar to other practices of implementing auditory modeling examined in research on reading. For instance, the implementation of audiobooks can be found in research into reading-while-listening practice (e.g., Carbo, 1978; Rasinski, 1990; Reitsma, 1988; Schneeberg, Mattleman, & Kahn, 1973), audio-assisted reading (e.g., Shany & Biemiller, 1995), reading along with audiobooks (Beers, 1998; Byrom, 1998; Chomsky, 1976; van Bon, Bokesbeld, Font Freide, & van den Hurk, 1991), and listening to books read aloud by a teacher (e.g., Amer, 1997; Gold & Gibson, 2001). A shared property of the above-listed practices is that they implement audio forms of a printed text (either through a machine or being read aloud by a more capable reader). What is different, though, is that various studies have applied audio-form texts in different ways (e.g., through repeated listening, repeated reading with a single listening, and/or a single simultaneous reading-and-listening). 'Audiobooks', in this study specifically, refers to illustrated books supplemented with an oral rendition of the respective texts, and the 'use' of audiobooks, practiced in this study, refers to a single, simultaneous reading of and listening to the audiobook.

Unlike the extensive research in L1 contexts, the use of audiobooks has not been investigated to any great extent in L2 contexts. Nevertheless, a relatively small number of available studies in L2 context observed some benefits of using audiobooks in terms of vocabulary gains (e.g., Chang, 2011; Gobel & Kano, 2014; Mestres, et al., 2019), enhancement of listening fluency (Chang, 2011; Mohamed, 2018), comprehension and reading fluency improvement (e.g., Blum et al., 1995; Chang, 2012; Chang & Millet, 2015; Gobel & Kano, 2014), and a positive attitude toward reading and engagement with reading in English (e.g., Blum et al., 1995; Hickey, 1991; Koskinen et al., 1999, 2000; Tragant & Vallbona, 2018). While these studies were conducted within a classroom framework, some extended to include reading at home (in addition to classroom reading) and shared reading practice (Blum et al., 1995; Koskinen et al., 1999, 2000).

Despite growing agreement that the use of audiobooks leads to positive effects in reading abilities, findings revealing mixed effects (i.e., a facilitative effect on some aspects and none on others) have been reported as well. For instance, Mestres et al. (2019) observed a significant difference in vocabulary gains, but none in reading fluency between students reading silently and those reading and listening to the books at the same time. The researchers attributed such results to the relative shortness of graded readers (909 words on

average), and consequently to the limited overall input received in the study. Similarly, Woodall (2010) found that the experimental group using audiobooks outperformed the control group in comprehension but showed no consistent patterns in fluency change. The researcher attributed the results to the way fluency was measured; specifically, fluency was measured for five minutes at the start of each session, thus it was assumed that students did not have enough time to 'warm-up'. Taking into account such drawbacks, this study planned a longer period of intervention, and longer passages were employed in measuring students' fluency, to make sure students were able to fully engage in reading.

2.2. Research on Development of Reading Fluency

Defining the construct of reading fluency has been one of the controversial issues constantly addressed in the literature on reading fluency, which consequently informs fluency assessment and fluency instruction as well. Nevertheless, generally agreed upon key components include accuracy, automaticity (rapid and easy processing), and prosody (expressiveness) (Grabe, 2009). The importance of fluency development comes from Automaticity Theory (LaBerge & Samuels, 1974), within which reading fluency is defined as "the ability to decode and comprehend at the same time" (Samuels, 2006, p. 39). LaBerge and Samuels (1974) suggested that reading requires the orchestration of complex skills and is expected to be operated within a short time. However, because of our limited attentional resources and working memory capacity, conscious (i.e., not automatic) processing may result in overload, consequently inhibiting reading performance. From this point of view, it is predicted that if the lower-level processing skills (e.g., word recognition) are relatively automated, readers' limited cognitive capacity can then be spared for the execution of higher processing skills, such as building textual inference and employing background knowledge, among others. Samuels (2006) argued that reading encompasses recognizing printed words visually, which is regarded as decoding, and synchronizing the retrieved information to build meaning, which underlies comprehension of a text. It is thus assumed that improvements in fluency may allow readers to attend to both activities simultaneously, whereas readers with insufficient fluency are prone to sacrificing their comprehension as a result of extensive attention placed on underdeveloped (unautomated) lower-level processing.

As to the means of fluency instruction within Automaticity Theory, repeated reading (RR) has been commonly used and proven to be effective in English L1 contexts (National Reading Panel, 2000). The practice of RR has been developed by Samuels (1979) and entails multiple rereading of the same short passages until readers achieve an appropriate level of accuracy and speed. A small number of available studies on fluency development

in L2 contexts within the framework of Automaticity Theory include those conducted by Taguchi and his colleagues (Taguchi, 1997; Taguchi et al., 2012; Taguchi et al., 2004), and several others led by Chang and her colleagues (Chang, 2012; Chang & Millet, 2015). Researchers have also discussed some of the drawbacks associated with RR. For example, Taguchi et al. (2012) mentioned two problems associated with RR: (1) students may be bored and demotivated, and (2) students may have limited exposure to a wider variety of reading materials due to rereading of the same passages.

As part of a solution for the first drawback, an audio component has been added. This practice is commonly referred to as assisted RR. For example, Taguchi et al. (2004) compared two groups of EFL learners with similar reading proficiency levels engaging in extensive reading (ER) and assisted RR instruction over seventeen weeks. The procedure for assisted RR involved three rounds of silent rereading and two additional rounds of silent rereading while listening. The findings revealed that assisted RR was as effective as ER in improving reading speed and comprehension. Motivated by promising findings, Taguchi and colleagues (2012) continued to qualitatively examine a single case of an L2 advanced-level student's achievement in fluency, and whether and how it predicted comprehension growth. Among the findings relevant to this review are the advantages and disadvantages of the inclusion of audio, as reported by the participant. The results on this aspect of the study led to the conclusion that listening enabled the participant to read faster.

Some earlier studies focused on extending the use of audiobooks beyond the classroom. As such, Blum et al. (1995) were interested in literacy development of first-grade L2 learners. A home-based repeated reading and a home-based reading with audiobooks were compared to investigate the effectiveness of reading with audiobooks on fluency. Analyses of the collected data demonstrated that participants achieved fluency improvement. Although these studies demonstrated fluency and comprehension achievements on practiced passages, it yet remains inconclusive whether such gains can be transferred to unpracticed reading passages.

While these studies used audiobooks in RR, a number of other studies on fluency instruction applied audiobooks in a single reading of multiple texts. For example, Chang and Millet (2015) further examined how incorporating audiobooks (in ER) affected the speed and overall comprehension of EFL secondary school students. Though the posttest results obtained from both the ER-only group and the ER-plus-audiobooks group revealed a significant increase in speed and comprehension achievements, the group that read with audiobooks significantly outperformed the group that read silently. Moreover, the results of a delayed posttest demonstrated the retention of gains obtained from the treatment, thus confirming the beneficial effect of ER with audiobooks.

2.3. Research on Development of Reading Motivation

Motivation, when positive, facilitates comprehension and can itself be improved through instruction (Grabe, 2009). Among the first to investigate the correlation between motivation and reading comprehension were Guthrie and Wigfield (e.g., Guthrie & Wigfield, 1999, 2000; Wigfield & Guthrie, 1997), who conducted a series of studies on the motivation to read. Guthrie and Wigfield (2000) determined that an increase in reading motivation can be achieved through directed instruction. Consequently, it is important for instructors to continually investigate and experiment with instructional practices that are aimed at boosting students' motivation to read.

In contrast with considerable research undertaken in L1 reading motivation, there has been a paucity of studies in L2 contexts. Mori (2002) designed an L2 reading motivation questionnaire identifying four major components, including intrinsic motivation, extrinsic motivation, the importance of reading, and reading efficacy. Motivated by this study, later studies in L2 contexts attempted to further examine L2 reading-motivation factors and methods in order to measure reading motivation (e.g., Dhanapala & Hirakawa, 2016; Kim, 2011; Takase, 2007). For instance, Dhanapala and Hirakawa (2016) developed a questionnaire to assess Sri Lankan EFL students' motivation and attempted to find a correlation between reading motivation and text comprehension. The researchers concluded that only intrinsic motivation (i.e., curiosity and involvement, challenge for reading, positive reading behavior, and utility value of reading) had a positive impact on comprehension. A few studies (Hayashi, 2015; Lee, 2015) yielded conclusions consistent with these findings, suggesting that a significant relationship exists between reading motivation and reading comprehension. Such positive findings imply that instruction directed toward motivating students to read may, in turn, result in better reading achievements.

A number of studies (e.g., Beers, 1998; Blum et al., 1995; Byrom 1998; Hickey, 1991; Koskinen et al., 2000) indicated a positive impact of audiobooks on L2 reading motivation. For example, Hickey (1991) examined children's motivation to read when they were given books with accompanying audiotapes to read at home. She found that although children similarly read books with and without audio, 15% of children reported audiobooks to be a "single motivating factor" (p. 126). Moreover, positive reactions to the use of audiobooks came from two-thirds of the parents, who also expressed willingness to use audiobooks. Incorporation of audiobooks to home reading was examined by Koskinen et al. (1999). The researchers concluded that the use of audiobooks increased children's self-efficacy, which, in turn, led children to feel "pleasure and confidence hearing themselves read well" (p. 431). This suggests that the use of audiobooks encouraged students' confidence as readers

and thus motivated them to persist in reading. Another piece of supportive evidence comes from a longitudinal study on the effect of audiobooks led by O'Day (2002). The findings indicated that incorporating audiobooks into the reading process positively affected reading achievements and students' attitudes about reading activity.

Unfortunately, the existing research is restricted to young children, and thus the findings are not generalizable to adolescent EFL learners. In addition, although these studies suggest a positive effect of audiobooks on motivation and offer insightful implications, the conclusions are based on general observation or diary reports only. For these stated reasons, further research incorporating quantitative data, as well as involving EFL adolescent learners, is necessary to support existing findings and provide more information about adolescents. Motivated by the staggering number of positive findings in L1 settings, and given the scarcity of studies in L2 settings, this study intends to examine the effect of audiobooks on the reading fluency and motivation of EFL learners, raising the following research questions:

1. To what extent does the use of audiobooks affect ninth-grade EFL learners' reading fluency in terms of reading speed with comprehension?
2. To what extent does the use of audiobooks increase the motivation to read in English of ninth-grade EFL learners?

3. METHODOLOGY

3.1. Participants

Twenty-eight pupils from two ninth-grade intact classrooms of a public school in Aktobe, Kazakhstan, participated in this study. The school is not specialized in English language learning, with students predominantly (70%–80%) coming from regional areas. The sample was comprised of fourteen (50%) female and fourteen (50%) male students. The participants were Kazakh and Russian bilingual students, whose mean age was 14.5 years, ranging from 14 to 15 years old. At the time of the study, participants ($N = 28$) had been learning English for four years, starting from the fifth grade, for 80 minutes per week, mainly focusing on vocabulary and grammar knowledge. Reading, among the four skills, had been instructed through reading short passages silently followed by comprehension exercises (true/false, yes/no questions, multiple-choice and open-ended questions) either designed and prepared by the teacher or given in school textbooks. Due to lack of technical facilities, students had rarely practiced listening to an audio model of reading materials, and overall reading in English had been limited to short passages (e.g., 100–300 words)

given in the textbooks. According to a classroom teacher's description passages were generally about everyday life experiences such as travel and tourism, jobs, sport, international holidays, hobbies, sightseeing, and mass media, among others. The students' usual reading activities had required students to identify unfamiliar words, scan the text, retell the text in pairs, and attempt to respond to comprehension questions in English both orally and in written form.

Overall, a total of thirty-one students from two classes were recruited for the study, with their parents' consent. However, only twenty-eight remained until the end of the study, with fourteen students in each group.

3.2. Measurement Instruments

Three measurement instruments were used in this study. Specifically, a paper-based measurement of reading speed, a comprehension test comprised of multiple-choice questions, and a questionnaire to measure motivation level. Participants' reading speed, along with comprehension, was measured during the pretest and posttest. The texts for the pretest and posttest were designed using the proficiency-graded audiobooks of Pearson Readers series (level 2), which were not used in the instructional treatment. Level 2 graded readers contain 600 headwords and are defined as pre-intermediate level by the publisher. Students' reading speed was determined by measuring *words per minute* (WPM). To obtain the WPM, students' silent reading was timed and recorded by the researcher and a classroom teacher.

The main purpose of comprehension measurement along with measuring reading speed was to ensure that students were involved in meaningful reading and not just speedy reading. To measure students' comprehension, two tests based on four different texts were designed by the researcher using the activity questions provided by the publisher of the graded books from which the texts were taken. Revisions were made on the basis of feedback from English language teachers, and finally pilot-tested on similar ninth-grade students. The result of the pilot study revealed some unfamiliar words, which were therefore provided in the Kazakh and Russian languages below each passage. Students were asked if they had heard or read any of the four stories included in the reading test. Furthermore, to avoid the possible effect of topic knowledge, each set of the tests consisted of two texts from different books. Each test included ten questions in total, with five multiple-choice questions and five word-finding questions. In addition, to ensure the similarity between the two tests, passage readability was measured by means of Lexile Analyzer. The Lexile measure of all four passages represented 400L–500L, with similar mean sentence length and word frequency. Although the passages varied somewhat in length, the total number of words in the pretest and the posttest was similar. All four

passages were of a similar difficulty, on the basis of the Flesch-Kincaid Grade Level (2.4, 2.0, 2.2, and 2.1)

To measure students' motivation to read in English, the Motivation for Reading Questionnaire (MRQ) was adapted from Wigfield and Guthrie's (1997) study and modified as *reading in English* instead of *reading*. The questionnaire consists of 53 items, representing 11 constructs of reading motivation, and is rated on a 4-point Likert scale ranging from *very different from me* to *a lot like me*. The total score was calculated by averaging across all the items in the questionnaire, with a maximum of 4 points and a minimum of 1 point. The MRQ is designed for younger learners and is therefore considered appropriate for the target population of this study. First, the questionnaire was translated into participants' L2 (Russian) by the researcher. Next, another bilingual English teacher was asked to comment on the translation. Finally, several modifications were made based on feedback. In addition, the comprehensibility of the back-translated MRQ was piloted on a similar target sample.

Furthermore, interview questions developed by O'Day (2002) focusing on students' understanding of the reading process, the use of audiobooks in the classroom, and their feelings of self-efficacy were used during the posttest to gain in-depth insight into students' motivation to read.

3.3. Procedures

3.3.1. Preliminary study

Prior to the experimental reading instruction, a preliminary study was conducted with two purposes: (1) to test the measurement instruments used in the experiment, and (2) to select materials that would be interesting for participants and appropriate in terms of difficulty level.

First, reading materials appropriate to learners' reading proficiency levels were selected. In order to define the appropriate level of difficulty participants were asked to circle unfamiliar words from two-page extracts from level 2 and level 3 Pearson Readers series books. These extracts were selected from books not included in the reading instruction. An "independent level", with 98–99% familiarity of vocabulary (Nation, 2001), was identified. Stahl and Heubach (2006) stated that the amount of support should be considered while deciding on text difficulty in fluency practice. Specifically, they suggest that when students are required to read on their own, the level of reading materials should not be higher than the independent level. As a result, this was used to determine text difficulty in fluency practice in the present study.

Second, reading materials that learners find interesting were identified. In particular, the story titles and short descriptions of the story provided by the publisher were translated into the participants' L2 (Russian) and presented to them for evaluation. Specifically, they were asked to rank thirteen books on a 5-Point Likert scale, from *definitely do not want to read* to *definitely want to read*. Based on students' evaluations seven books were then chosen, of which only four were actually used in the instructional treatment.

3.3.2. Instructional treatment

The treatment was administered during twelve sessions, excluding the pretest and the posttest, with three 40-minute sessions per week as an after-school activity. Students were introduced to the purpose of the study and to the procedure through trials of timed reading. The classroom English teacher was asked to assist the researcher in conducting the pretest and posttest. During the pretest, students were asked to read the first story silently for comprehension and raise their hands upon completion. The teacher then recorded the time of completion, which students could fill in in the time log section on their reading sheets. Next, students were required to complete five comprehension questions without referring to the text. The same procedure was repeated with the second story of the test. Overall, students were asked to read two stories in the pretest and complete a total of ten comprehension questions. The participants then were asked to complete the MRQ.

For the instructional treatment, the two groups had their lessons separately at different times and in different classrooms. The lessons started with an attendance check, and distribution of the photocopied handouts of the reading extracts for each session. Instruction consisted of silent reading of the passages in the control group and reading silently along with the audiobooks in the experimental group. For the experimental group, the audio files were played using a CD player and two speakers. The materials were segmented based on students' average reading speed. Participants' average reading speed was roughly estimated during the preliminary study while selecting appropriate materials for the treatment. Information regarding the books and their segmentation is displayed in Table 1. As can be seen in Table 1, the word counts for the four audiobooks ranged from 7,438 to 10,093, while the estimated speed of the audiobooks ranged from 86 WPM to 113 WPM. It is important to note that the original speed of audiobooks was not adjusted for the treatment. The reading lasted for approximately 25–30 minutes, after which students were involved in an approximately 10–15-minute discussion activity to check comprehension. The after-reading discussion activity was not intended to record students' comprehension score, but to ensure that they were not reading without understanding. Students were encouraged to use English but were allowed to use Kazakh and Russian during the post-

reading activity.

TABLE 1

Profile and Segmentation of the Reading Materials

	1st Session	2nd Session	3rd Session	Word Counts	WPM
Week 1					
The Prince and the Pauper	Ch.1–Ch.5	Ch.6–Ch.10	Ch.11–Ch.15	9137	86
Week 2					
Pirates of the Caribbean	Ch.1–Ch.5	Ch.6–Ch.10	Ch.11–Ch.15	7438	105
Week 3					
Robin Hood	Ch.1–Ch.6	Ch.7–Ch.12	Ch.13–Ch.16	8760	102
Week 4					
The Voyages of Sinbad the Sailor	V.1–V.2	V.3–V.4	V.5–V.7	10093	114

3.3.3. Data analysis

SPSS version 23 for Mac (SPSS, 2015) was employed for the statistical analysis. To address the first research question, descriptive statistics were computed, and the pretest and posttest results within the groups were compared by means of paired-sample *t*-test to examine the gain difference within groups. Next, the posttest results of the experimental group were compared to the posttest results of the control group, using ANCOVA, to evaluate whether mean differences between groups were statistically significant. ANCOVA was employed because it allows comparing after-treatment gains whilst controlling for external factors such as preexisting group differences, reflected in the pretest scores in the case of this study. This type of statistical analysis is commonly applied when participants are not randomly assigned to control and experimental groups (Dörnyei, 2007).

For the second research question, the same method that was used for the first research question was employed to examine whether the use of audiobooks affected students' motivation to read in English. That is, descriptive statistics were computed and mean gain differences within groups were calculated with a paired-sample *t*-test. Then, the mean differences between the experimental and the control groups were examined, while controlling for pretest results using ANCOVA.

Lastly, to better understand the impact of audiobooks on students' motivation to read in English, qualitative data was collected to supplement the quantitative data. The qualitative data analysis procedure involved the following steps. First, the verbal recordings transcribed in Kazakh were translated into English by the researcher, then reviewed and

commented on by two bilingual English teachers to obtain a second opinion. Second, major themes were examined and coded. Although, the primary purpose of the interviews was to examine students' motivation to read, additional observations judged to be germane to the study and noteworthy were also reported. The coding and categorizing procedures were carried out following the general moves described by Dörnyei (2007) on qualitative data analysis.

4. RESULTS AND DISCUSSION

4.1. Effects of Audiobooks on Reading Fluency

As the first step in addressing the first research question (To what extent does the use of audiobooks affect ninth-grade EFL learners' reading fluency in terms of reading speed with comprehension?), the pretest and the posttest scores in each group were compared by means of a paired-sample *t*-test. Table 2 summarizes the minimum, maximum, mean scores, and the standard deviations for reading speed and comprehension obtained in the pretest and the posttest. Students' reading speed was measured as the number of words read per minute. With regard to the comprehension test, one point was given to each item on the test, which was composed of ten items in total. Consequently, the maximum score for the reading comprehension test was 10 and the minimum score for reading comprehension was 0.

TABLE 2
Descriptive Statistics of Results for Reading Speed and Comprehension

Group		Speed				Comprehension			
		Min.	*Max.*	*M*	*SD*	*Min.*	*Max.*	*M*	*SD*
Experimental (n = 14)	pretest	82.63	160.59	127.68	20.09	5	10	7.64	1.60
	posttest	130.14	224.06	162.92	25.57	7	10	8.64	.93
Control (n = 14)	pretest	54.48	164.25	120.10	28.90	5	10	7.29	1.64
	posttest	97.39	174.17	135.29	25.39	6	10	8.00	1.36

As shown in Table 2, the mean scores of both groups in terms of reading speed increased notably after the intervention. Moreover, it can be observed that in the posttest the experimental group achieved noticeably higher reading speed (i.e., 162.91 WPM) than the control group (i.e., 135.29 WPM). In looking at within-group changes, paired-sample *t*-tests were run on the pretest and the posttest. As a result, statistically significant differences in reading speed were found for both the experimental group (M_{diff} = -35.25, SD = 19.20; t =

-6.87, $p < .001$) and the control group ($M_{diff} = -15.20$, $SD = 23.25$; $t = -2.44$, $p = .029$) after the four-week intervention. Importantly, based on the two groups' reading comprehension scores in the pretest ($M_{exp} = 7.64$, $SD = 1.60$ and $M_{cont} = 7.29$, $SD = 1.64$) and the posttest ($M_{exp} = 8.64$, $SD = .93$ and $M_{cont} = 8$, $SD = 1.36$) it can be implied that students were reading with an attempt to understand. In other words, students demonstrated an increase in reading speed, while sustaining similar comprehension levels from the pretest to the posttest. In other words, the increase in speed did not happen at the expense of comprehension.

As the second step, the posttest scores between groups were compared, performing ANCOVA to explore whether the difference between groups was statistically significant in the posttest. The summary of the results is displayed in Table 3. Prior to running ANCOVA, normality of distribution and homogeneity of variances were tested. Shapiro-Wilk's test of normality produced insignificant results ($p = .187$ for the experimental group and $p = .524$ for the control group), which implies that the total score variable for each group is normally distributed. As to the equality of variance, Levene's test for equality revealed $p = .943$, meaning that the variances are not significantly different.

TABLE 3

Results of ANCOVA on Posttest Scores for Reading Speed of the Groups

Source	*Type II SS*	*df*	*MS*	*F*	*Sig.*	Partial η^2
			Reading Speed			
Corrected Model	12300.027	2	6150.013	15.489	< .001	.553
Intercept	3565.591	1	3565.591	8.980	.006	.264
Pretest	6955.556	1	6955.556	17.518	< .001	.412
Group	3503.033	1	3503.033	8.822	.006	.261
Error	9926.551	25	397.062			
Total	644766.793	28				
Corrected Total	22226.578	27				

From the summary of the results presented in Table 3 it is clear that there was a significant difference in reading speed between the experimental ($M = 162.92$, $SD = 25.57$) and the control ($M = 135.29$, $SD = 25.39$) groups at the specified .05 level of significance, $F = 8.82$, $p = .006$, partial $\eta^2 = .261$. This indicates that the effect of audiobooks was statistically significant and explained 26% of the variance.

Comparison of the two groups, which differed only in the use of the audio accompaniment, by means of ANCOVA, found that audiobooks offer a statistically significant advantage in improving reading speed (see Table 3). With regard to within-

group changes in reading speed, both groups demonstrated significant growth over the relatively short period: the experimental group gained 35 WPM, whereas the control group gained 15 WPM. As for the interpretation of the meaning of observed gains, previous research in L2 contexts may provide some insights. For instance, Chang and Millet (2015) investigated the effect of audio-assisted reading on the reading speed of tenth-grade EFL students. They found that their reading speed increased from 102 WPM to 145 WPM, gaining 43 WPM over a period of twenty-six weeks. Kim (2012) found similar results from her study on Korean-middle school EFL learners. Specifically, students had gained approximately 48 WPM after a repeated-reading-while-listening practice. Such findings from earlier research lead to assume that the accomplished gains in 35 WPM in this study can be considered encouraging, especially taking into account that the students have completed only four graded books within a comparatively short period of twelve sessions over four weeks.

These findings regarding the increased reading speed confirm previous research findings that claimed a positive effect of audio accompaniment on reading speed (Askildson, 2008; Chang & Millet, 2015; Kim, 2012). Such positive results regarding reading speed suggest support for the facilitative effect of audiobooks on reading speed. This may have been due to a scaffolding effect provided by a fluent reader, which in turn enabled students to move from word-by-word reading toward reading in larger chunks (Beer, 1998; Carbo, 1978; Kuhn & Rasinski, 2011; Rasinski, 1990). For example, Kuhn and Rasinksi (2011) described that learners should be exposed to a model of fluent reading as one of the principles of fluency instruction. Moreover, students need to be assisted in reading in "syntactically appropriate and meaningful phrases" (p. 279). In other words, the inclusion of audio may have enabled students to read beyond word-by-word reading, thus resulting in fluent reading of larger texts. Similarly, with the help of the audiobooks students could reach their proximal development level as explained by the ZPD notion within Vygotsky's sociocultural theory. Vygotsky's (1978) model of learning, in which one makes use of external support to function at a level higher than one could function at independently, and by doing so internalizes the skills needed to function at that level independently, appeared to be supported by the findings of this study. However, students' reading speed was not measured during each instructional session, making it impossible to describe how students' speed changed throughout the sessions. Future studies may employ measurement of fluency at several points of time to obtain better observations of speed change.

4.2. Effects of Audiobooks on Reading Motivation

The results in regard to the second research question (To what extent does the use of audiobooks increase the motivation of ninth-grade EFL learners to read in English?) are

presented including a discussion of the findings and possible explanations in relation to previous research studies.

4.2.1. Survey results

To address the effectiveness of the treatment, results of the motivation survey were compared within and between the two groups. The maximum, minimum, mean score, and standard deviation for each group in the pretest and the posttest were calculated, and the summary is shown in Table 4. The minimum value of 1.0 point and the maximum value of 4.0 points were given to each item in the questionnaire, and the total score was calculated by averaging all items.

TABLE 4

Descriptive Statistics of Results for Reading Motivation Level

Group		Motivation Level			
		Min.	*Max.*	*M*	*SD*
Experimental (n = 14)	pretest	1.81	3.60	2.77	.47
	posttest	2.04	3.43	2.94	.43
Control (n = 14)	pretest	1.83	3.21	2.74	.36
	posttest	2.47	3.53	2.92	.35

It can be observed that both groups demonstrated an increase in motivation to read. For instance, the mean score of the experimental group in the pretest was 2.77 and increased to 2.94 by the end of the treatment. Similarly, the control group seemed to increase their motivation level from the onset of the treatment, when their mean score was 2.74, to the end of the treatment, when their average score was 2.92. Further paired-sample *t*-test analysis of the pretest and posttest for motivation level revealed statistically significant changes in the experimental group only (M_{diff} = -.18, SD = .26; t = -2.56, p = .02). Meanwhile, the control group did not observe statistically significant gains (M_{diff} = -.18, SD = .37; t = -1.85, p = .09) after the four-week intervention.

In order to examine the difference between the groups by comparing the posttest results, an ANCOVA was used. The results of the ANCOVA are summarized in Table 5. Before running the ANCOVA, assumptions of normal distribution and homogeneity of variances were tested. Shapiro-Wilk's test resulted in non-significant statistical results (p = .176 and p = .208 for the experimental and the control groups, respectively) indicating that scores on MRQ for each group are normally distributed. Levene's test for equality of variances was consulted, and a p-value of .085 was calculated. It can, therefore, be concluded that the variances of the groups were not significantly different.

As demonstrated in Table 5, no significant difference was revealed between the groups (F = .003, p = .956, partial η^2 = .000). This result implies that the provision of the audiobooks did not produce greater motivation levels than the provision of the printed version alone. To put it differently, students' motivation to read did not significantly differ regardless of whether they read silently or read along with the audiobooks.

TABLE 5

Results of ANCOVA on Posttest Scores for Motivation Level of the Groups

Source	Type II SS	*df*	*MS*	*F*	*Sig.*	Partial η^2
Corrected Model	1.950	2	.975	11.842	< .001	.486
Intercept	.743	1	.743	9.027	.006	.265
Pretest	1.945	1	1.945	23.621	< .001	.486
Group	.000	1	.000	.003	.956	.000
Error	2.058	25	.082			
Total	244.503	28				
Corrected Total	4.009	27				

These findings failed to show statistically significant evidence for a greater benefit of the use of audiobooks over sustained silent reading, therefore lacking support for the findings of previous research in this area (e.g., Beers, 1998; Blum et al., 1995; Byrom 1998; Hickey, 1991; Koskinen et al., 2000). Although the group that used audiobooks demonstrated statistically significant gains throughout the intervention, the insignificant difference between groups suggests that audiobooks were not necessarily a better tool to foster reading motivation in this context. One possible reason that may have contributed to statistically insignificant gains is the students' lack of exposure to longer texts, and consequently to a larger amount of reading. The students had neither experience reading longer texts nor opportunities to read in English for pleasure without the pressure of being tested. Therefore, we can postulate that audiobooks may function as additional help to foster motivation to read in students who have previous experience of reading, and the resulting engagement in text interaction.

4.2.2. Interview results

Students' attitudes

All seven interviewed students responded that they liked reading and using audiobooks. They reported that using audiobooks helped them to read words correctly and with intonation, as well as to understand the stories. To demonstrate, Student A mentioned that she liked the use of audiobooks because it helped her to read words.

Excerpt 1. Interview with Student A

R: I see, did you like using audiobooks during the experiment?
SA: Yes, of course.
R: Why?
SA: When we read the text hmm on one hand we hear how it is read hmm at such time it is helpful.
R: How is it helpful?
SA: For example, we see a word, we know what it is, but we don't know how to read it. But while listening to an audio, we will know it.

Excerpt 2. Interview with Student D

R: During the lessons we read books along with its audio discs. This is called audiobooks, right? Did you like it? Did you like using it?
SD: Yes, I liked using audiobooks. It helped to … how the words should be read correctly

From these sample excerpts, it could be inferred that the use of audiobooks enabled the students to decode the words, which in turn possibly made the reading process easier. Student B, for example, explained that she liked the use of audiobooks since it improved her fluency, *"my reading speed increased after that* [the use of audiobooks] *hmm. By increasing the speed, I think my comprehension also got better."* Meanwhile, for some students the reason behind their positive attitudes toward the use of audiobooks was its impact on their comprehension. The following excerpt shows one such example:

Excerpt 3. Interview with Student F

I personally think that through the use of audiobooks it was easier to remember [the storyline] and as if hmm it was easier to understand.

Furthermore, the students seemed to believe that the use of audiobooks helped them to improve their reading skills. This is evidenced in Student E's reply when she was asked to name things that have helped her to become a better reader: *"through listening to the words, reading, and through memorizing them."* Similarly, Student G mentioned that participation in the experiment helped her to improve her reading abilities. She thought so based on her classroom teacher's recent comments on her improved performance in reading during English class. This is illustrated in her response: *"my teacher said that my reading has improved. I mean, listening while reading is more helpful because hmm many students don't know how to correctly place stress in some words, and while listening we*

know how to pronounce and it [reading] is improving." It is worth mentioning that two of the students (i.e., Student B and Student G) expressed that they preferred reading with audiobooks because it was easier to understand and more interesting, and in the case of Student B, because it was easier to read and enhanced reading speed.

In addition, the majority of the students confirmed their after-class engagement by means of rereading the handouts, looking up unfamiliar words in a dictionary and discussing the content of books with each other afterwards. This can be demonstrated, for example, in the excerpt from the interview with Student G: *"girls said hmm they read with me, they said that they don't know this word and asked to look it up in a dictionary, so we all checked and got to know it. We also, apart from reading in the classroom, discussed them* [books]*."* Moreover, students noted that they shared the stories with their families back home, as evidenced in Student C's report: *"I didn't know many words at the beginning, and then I learned. Then I marked them* [unfamiliar words], *as you mentioned and then translated.* [...] *I told my sister. My sister was interested."* Two students (i.e., Student D and Student E) shared that even after the treatment period finished, they were willing to continue reading without audiobooks too. All in all, these results imply that the students became actively engaged in reading activities beyond the classroom, which is a crucial indicator of an increase in motivation to read.

Effects of audiobooks on word recognition and comprehension

The students' comments suggested that audiobooks helped them to understand the stories better. More specifically, it seems that an expressive audio rendition, with proper intonations and various emotions, gave the learners better understanding of the story and helped them to "picture" the events. All seven interviewees, without exception, at different parts of the interviews mentioned the illustrative tones of the audiobook readers. For example, Student D that "*once it* [the audio] *reaches your ears, it imprints in your memory. They are memorized and then sometimes when you read it, you can recall it and read correctly thus making progress*". Interestingly, this might imply that listening to a fluent modeling, including prosodic elements, enabled the students to grasp the story as a whole and to construct meaning (Taguchi, Gorsuch, Lems, & Rosszell, 2016). Student A expanded on the influence of expressive reading when asked whether the use of audiobooks helped to understand a story. The response was: " […] *because the person who reads the audiobooks does so with expression. I think it is comprehensible at such times.* […] *For example when there is an exclamation mark* [in the print version] *hmm they might be being surprised or giving orders. We can differentiate it by listening to their reading."* Similar remarks with regard to audiobook readers' tone can be found in Student G's reply: *"just by listening to words, I tried to picture in front of my eyes* […] *I pictured and I tried*

to understand. Probably because of the intonation I started to understand very well."

Throughout the interviews, it was also evident that students found audiobooks useful in keeping them focused on reading without stumbling over unfamiliar or difficult words, as indicated in the following conversations between the researcher and the students.

Excerpt 4. Interview with Student B

SB: I think through listening hmm our reading speed and comprehension improved while reading.
R: Do you think so? How?
SB: Because when people only read they might lose attention to other things. But when you read hmm that [with audiobooks] hmm your attention is fully on a text.

This excerpt clearly shows that the student felt an increase in her speed and comprehension when she read along with the audiobooks. Moreover, based on her explanation, it seems that the audiobooks encouraged her to read continuously without being distracted. This makes sense in that audiobooks are usually read at a constant speed, which may require students to follow the audiobook and to stay on task. Supporting evidence for such reasoning is also illustrated in the following excerpt.

Excerpt 5. Interview with Student C

I think we don't need to know every word; it is enough to understand the sentence. That's why when you read with audiobooks you try to follow and read together. Thus, since you try hmm you don't pay attention to those words but are able to understand.

Based on this excerpt, it can be asserted that Student C was able to use reading strategy to understand the general meaning, rather than concentrating on separate words. Importantly, the student was able to do so probably due to the pacing support given by the audiobooks.

Overall, the interview results revealed that the participants seemed to engage in the reading process. Such findings lend support to Wigfield and Guthrie's (1997) argument that "when children believe they are competent and efficacious at reading they should be more likely to engage in reading" (p. 421). Some of core elements that predict motivation to read are interest, dedication, and confidence (Guthrie, 2011). From this perspective, it could be concluded that students demonstrated high interest and dedication, which refers to behaviors such as putting in effort and being engaged during and after the school reading. Despite seemingly high levels of motivation, the interview results do not provide enough evidence to claim that any increases in motivation can be attributable solely to the use of

audiobooks. Secondly, the findings from the qualitative data analysis appear to be consistent with the findings from the quantitative data analyses with regard to students' increases in reading speed. This was, for example, evidenced by students' reports on their tendency not to stop when they encountered unknown words, and not to pay attention to every single word in the text. Lastly, all seven interviewed students reported liking the use of audiobooks and responded that it helped them to read words and understand the story by "visualizing" and/or "picturing" the events in the stories. This, in turn, might have helped them to construct the meaning and retain the information in their working memories. Such findings on better comprehension may be accounted for by the prosodic features—reading with expression and in appropriate phrasing—inherent in audiobooks. Similar reports by students were found in Chang and Millet's (2015) study on audio-assisted reading. The researchers concluded that due to various sound effects and the dramatic reading provided by the audiobooks, students seemed to concentrate better on the stories, which in turn may have resulted in enjoyable reading and consequently in enhanced comprehension. Prosodic features could have reinforced students' ability to construct meaning using clues provided by proper intonation, tone, pitch, and other elements of prosody.

5. CONCLUSION

The present study sought to examine the effects of audiobooks on reading development, specifically on reading fluency in terms of reading rate and comprehension, and on motivation to read in English. First, the study revealed that the use of audiobooks is statistically-significantly effective in developing students' fluency, especially reading speed, as demonstrated by ANCOVA results. Secondly, results obtained from the paired-sample *t*-test indicated that only the experimental group achieved a statistically significant change in level of motivation. However, between-group comparisons employing an ANCOVA revealed no statistically significant difference. These findings imply that although audiobooks helped to increase students' motivation levels throughout the intervention, the gain did not turn out to be statistically significant in comparison with the group that read silently. It thus appears that the changes in motivation levels do not specifically result from the use of audiobooks. Finally, in regard to the students' perspectives, semi-structured interview results with selected participants from the experimental group suggested that the students enjoyed the use of audiobooks overall. Based on students' responses, it appeared that the use of audiobooks helped students to understand the story better and enhanced their engagement in reading practice. The students reported that the audiobooks positively affected their ability to visualize the stories, which in turn might have been helpful in retaining the information in memory.

Overall, this study adds to the existing evidence on the benefits of audiobooks in the development of reading fluency. More specifically, it provides empirical evidence that this approach can yield positive gains when aimed at improving reading speed. The findings have confirmed the benefits of audiobooks in improving students' reading fluency and provided implications for how EFL teachers could help their students to improve their reading fluency. In particular, the results indicated that implementing audiobooks to support reading for ninth-graders at public schools could have a positive impact on students' reading speed and motivation to read in English.

Nevertheless, some of the difficulties that occurred at the beginning of the reading instruction should be taken into consideration. First, the students were not used to reading texts longer than one paragraph in English, so they were often distracted and easily lost attention. As a result, students from the control group often required the teacher's intervention in the form of asking comprehension questions after only a few chapters had been read. Meanwhile, the students from the experimental group tended to be more focused. This might be due to the additional audio accompaniment enhancing their attention and enabling them to read continuously. It can be concluded that students may have benefitted from the exposure to interesting and varied reading material, as evidenced by positive results in both conditions. That is, reading in large amounts per se could have enhanced reading development (Stanovich, 2000). However, some recent studies (Bryan, Fawson, & Reutzel, 2003; Hiebert & Reutzel, 2010) revealed that when students were left to read on their own (e.g., sustained silent reading), they were often unable to concentrate, thinking of something else or distracting other classmates. Therefore, the use of audiobooks may serve as a type of technical assistance, enabling the reading practice itself to effectively serve its purpose.

Given that reading longer passages, and reading for pleasure, was a new experience for the participants, it seems necessary to provide students with such experiences first, in order for them to develop the motivation to read. This line of reasoning was supported by two facts: First, several students, who were not in either group originally, expressed eagerness to join the reading sessions without being tested or added as participants. Second, students from both groups asked for more books to read when the end of the instruction was announced. These facts indicate that students specifically enjoyed reading whole books, not short extracts, and were motivated to continue and persist with reading books even after the experiment.

The classroom teacher, who was present during some of the reading sessions out of personal interest, expressed a positive attitude toward the use of audiobooks, since it differed from the usual listening tasks in its prosodic features, such as the reader's imitation of various characters' voices and emotions. Furthermore, it was crucial to explain to learners why it is important to read, so that students could realize the purpose and

possible benefits of the activity. Moreover, it was essential to have discussion activities after reading, when students could demonstrate the results of their labor, which seemed to encourage them to continue reading. In addition, it is recommended for teachers to be actively involved in the reading process together with their students. This role of 'active reader' may give a sense of support to learners.

Several recommendations for future research were generated. Firstly, since the major drawback of the study is that it involved a small sample size, further research involving a larger sample size is needed. Secondly, the study included ninth-graders only; therefore, it is suggested that future research should investigate the effects of audiobooks with younger and older participants, to obtain more generalizable results. The results provide compelling evidence for the effectiveness of audiobooks and suggest that reading instruction with the inclusion of audiobooks appears to be an effective approach in improving reading speed. However, it is yet to be investigated in future research *why* such a positive impact exists. In summary, evidence supporting the positive effect of the implementation of audiobooks in reading, as well as the positive effect of reading longer texts for pleasure, can guide teachers' and school administrators' decisions about curriculum design and how best to use technology to support teaching practice.

Applicable levels: Secondary

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