

## Examination of reading skills of students who are poor readers in different text genres

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### Abstract

The purpose of this study was to compare the reading skills of the fourth graders who were poor readers in different text genres (story and informative text). Fifty-six fourth-grade students who were poor readers participated in this study. Reading rates, reading errors and reading prosody characteristics of the students were examined in the study. It was concluded that although reading rates of students were higher when reading the informative text, they had also produced a higher number of errors for this text genre. This finding revealed that the informative text was completed in a shorter amount of time, but more errors occurred than when reading the story text. The findings of this study make it abundantly clear that all stakeholders should continue to work diligently in organising reading instruction and reading interventions that support reading fluency among all readers and for all text genres.

**Keywords:** Reading difficulties, reading fluency, story, informational text, text genres.

## 1. Introduction

Reading is one of the most important skills in life. Although comprehension is the most important part of this process, reading fluently is necessary for comprehension. Salvador, Schoeneber, Tingle and Algozzine (2012) concluded that reading fluency was a required skill of early reading, and reading fluency acquired in the first years of the elementary school was a predictor of reading comprehension success in later grades. The same results were obtained by Young-Suk, Petscher, Schatschneider and Foorman (2010), where in their longitudinal study, it was observed that reading fluency from the first grade influenced reading success in the third grade. These studies demonstrate the importance of reading fluency for reading achievement during the school years.

It is expected that reading fluency is acquired by the third grade (Corcoran, 2005); however, some students are not as successful as their peers in acquiring reading fluency. Although these students move to the level of the reading text, they can't read fluently. They can't develop fluent reading skills even though they do not have any problems related to mental, hearing, visual, emotional, language and speech issues, their native language is the language spoken at school, and they have also not experienced frequent and/or extended periods of absenteeism (Bender, 2004).

Reading fluency is characterised by reading accurately, automatically and prosodically, and with expression (Kuhn, Schwanenflugel & Meisinger, 2010). When the reading characteristics of students with problems in the reading fluency dimension are examined, it is seen that these students' reading rate (e.g., the number of words read correctly in 1 minute) and reading accuracy are lower than their peers. In addition, these students make more reading errors, and when reading prosody is taken into account, a similar negative picture is observed. In order to accurately assess the reading fluency of students, it is necessary to acquire data from the three aforementioned reading dimensions: accuracy, automaticity and prosody (Hudson, Lane & Pullon, 2005).

### 1.1. *The reading fluency of poor reader students*

It is important to remember that when investigating reading fluency among poor readers, their reading rate and reading accuracy are lower than that of their peers. Also, poor readers tend to produce a higher number of reading errors as well as have similar difficulties with reading prosody. Seckin and Baydik (2017) showed that compared to their peers, the Turkish speaking third graders who were poor readers were less successful in all dimensions of reading including expression, volume, phrasing, smoothness and pace. Yildiz, Yildirim, Ates and Cetinkaya (2009) examined the prosodic characteristics of 70 Turkish speaking fourth-grade students by using a fourth-grade-level text as well as the *Multidimensional Fluency Scale* (Rasinski, 2004) and determined that 28 of the students exhibited problems in prosodic reading. The teachers who participated in Baydik, Ergul and Bahap Kudret's (2012) study in Turkey, pointed out that the most common fluency problem of students who were poor readers was their reading without being aware of and/or focusing on punctuation marks.

Besides reading prosody problems, it has been observed that students in Turkey who are poor readers also experience problems in reading automaticity and accuracy. The review of relevant studies showed that poor readers, compared to their peers, were less successful in reading rate (Ergul, 2012; Gokce-Saripinar & Erden, 2010; Seckin & Baydik, 2017) and accuracy measures (Akyol & Yildiz, 2010; Baydik & Seckin, 2012; Ergul, 2012; Yilmaz, 2008). As it was mentioned previously, the reading rate is a measurement that provides information on the automaticity and accuracy of reading and is calculated as the number of words read correctly per minute. The study from Baydik (2002) demonstrated that compared to their peers, the Turkish speaking students who were poor readers in the first grade took longer to read and made more errors with words they were supposed to be able to automatically identify at their grade level. The results of these studies have shown that students who are poor readers experience problems with both automatic and accurate reading.

In examining Turkish speaking poor readers' reading errors, Akyol and Temur (2006) observed that poor readers from the third grade, while reading a text at their grade level made frequent errors of self-correction, repetition, insertion, omission and reading words by dividing syllables incorrectly. In informative texts, researchers determined the errors were mostly repetition, insertion, omission and reading word by dividing syllables incorrectly. Sidekli (2010) identified errors of mispronunciation, letter omission, letter insertion and word repetition by the fourth-grade Turkish speaking students reading a story at their grade level. Akyol and Ketenoglu (2018) found that a third-grade Turkish speaking student's reading errors were mispronunciation, omission and insertion. Yilmaz (2008) encountered errors of omission, insertion and mispronunciation while observing Turkish speaking poor readers at the eighth-grade level read a fifth-grade-level story. In studies where the teachers' opinions were reviewed, Baydik et al. (2012) found out that the most frequent errors by the Turkish speaking third-grade poor readers were mispronunciation, letter-syllable omission and letter-syllable insertion. In another study in Turkey, based on teachers' opinions (Bulut & Kusdemir, 2017), it was concluded that most frequently observed errors of the second, third and fourth graders were mispronunciation, letter and syllable omission, and syllable insertion. Akyol and Yildiz (2010), while having a fifth-grade Turkish speaking poor reader read the first-grade stories, identified errors with the inability to read, mispronunciation, reading a word as another familiar word and reading a word as pseudo-word. Even though Cayci and Demir (2006) did not mention the kind of reading material used in their study, they did reach the conclusion that in reading the third-grade-level text, one of the Turkish speaking third-grade poor readers exhibited word omission and mispronunciation and another student experienced word, syllable and letter omission as well as word, syllable and word insertion errors. Ergul (2012) learned the most frequent errors committed by the Turkish speaking third-grade poor readers while reading a third-grade-level story were syllable repetition, mispronunciation, word repetition, self-correction and word-final substitution. Syllable omission, letter substitution, letter omission and letter insertion were the type of errors least observed by Ergul. Turkish speaking poor readers at the first- through the fifth-grade levels in Gokce-Saripinar and Erden's (2010) study were found to make more errors than their peers in letter omission, syllable omission, mispronunciation, reversal, letter substitution, letter insertion and syllable insertion when reading stories. The most common finding among the research studies examining reading errors of Turkish speaking students was that the most frequent error by poor readers was mispronunciation, and during their mispronunciation, the students also made letter-syllable omissions as well as letter-syllable insertion errors. However, in these studies, the students' reading skills were examined primarily through story texts.

It has been stated that students who are poor readers exhibit different reading performances while reading different text genres (Baydik & Seckin, 2012; Eason, Goldberg & Cutting, 2012; Saenz & Fuchs, 2002). For example, Saenz and Fuchs (2002) reached the conclusion that the reading rate of poor readers was slower in informative texts than in story text. The same result was also obtained in Baydik and Seckin's (2012) study in Turkey, where it was observed that in addition to more frequent errors in informative text reading, the comprehension of this text genre was also poorer. While the researchers, Eason et al. (2012), stated that the reading accuracy of poor readers in their study did not differ in terms of story or informative text. The researchers found these results surprising and related there is no difference in reading accuracy between story and informative text as a product of an informative text which was well organised. According to Eason et al. (2012), based on their observation, reading words correctly was not sufficient for comprehension as well as that in comprehending informative text, the students from the same study were less successful when responding to commentary questions.

It has been stated that the nature of the informative text is to provide information on a particular subject and, therefore, includes more technical and unknown vocabulary than that of story text (Eason et al., 2012). In addition, informative texts also differ from stories which are, in general, similar in form (e.g., characters, place, time, problem and solution) and in terms of a structure such as descriptive, comparative, cause-effect, problem-solution, sequencing, and so on. Due to these

differences, informative texts require a sufficient level of cognitive and oral skills for comprehension. As a result, it can be more challenging for students to deal with informative texts. It has been stated that in order for students to overcome the difficulties of informative texts, it is necessary that they are exposed to a variety of text genres (Saenz and Fuchs, 2002). However, Baydik and Bayraktar's (2013) study conducted in Turkey revealed that the distribution of informative texts in the third- and fourth-grade textbooks was deficient and also that almost all the informative texts reviewed were descriptive in nature. In addition, other forms of text provided were also found to be non-existent or at insufficient numbers (e.g., cause-effect, problem-solution).

It is important to investigate students' reading performance for all text genres and although poor readers may encounter informative texts less often it is still important to understand their reading fluency when reading these texts. The importance of studying students' reading performance in all text genres lies in the fact that the reading results lead to determining the future rehabilitative content as well as the operational period and material to be utilised for improving poor readers reading performance. There are not many studies in Turkey, other than Akyol and Temur's (2006) and Baydik and Seckin's (2012), which utilised informative text for examining the reading skills of poor readers. As a result, this study was carried out to remedy the dearth of research in this area. The research problem investigated in this study involved examining the reading fluency skills of poor readers in different text genres (e.g., story and informative). The reading fluency of poor readers was examined without comparison to their peers without reading difficulties. The lack of comparability in this study as well as the lack of focus placed on reading comprehension may be seen as limitations.

### **1.2. Purpose of the study**

The general purpose of this study was to examine a variety of aspects of the fourth-grade poor readers' reading skills including their reading rate, reading errors and characteristics of reading prosody as observed when the students read both story texts and informative texts.

The following questions were answered in the study.

1. Are reading rates of students differentiated between story text or informative text?
2. Are the numbers of reading errors of students differentiated between story text and informative text?
3. Is the prosodic reading performance of students differentiated between story and informative text?

## **2. Method**

### **2.1. Research model**

In this study, a comparative descriptive research model was used for comparison of reading rates and reading error frequency as well as the characteristics of reading prosody among the fourth-grade-level poor readers for both the story text and informative text. In this study, the independent variable was the text genres, and the dependent variables were the scores for reading rate, reading error frequency and reading prosody.

### **2.2. Participants**

In order to determine a group of poor reading students eligible to participate in this study, a total of 27 fourth-grade teachers, except one, from six elementary schools in the Cankaya district of the province of Ankara nominated their students who were of normal intelligence, had no known auditory, visual or obvious language impairment, could read a text but had also exhibited problems with reading fluency. All students were native Turkish language speakers and had no prolonged period of school absence. The subjects were taught reading and writing via a phonic approach named

'Sound-Based Sentence Method', in Turkish which is an agglutinative and a transparent language. The final group of students that participated in this research study were 56 students including 30 females and 26 males confirmed to fit the criteria outlined of research eligibility.

### **2.3. Data collection tools**

#### **2.3.1. Story**

The story text utilized in this study was 'Pisipisiotlari (Kitty Kitty Weeds)' which is from the book 'Ucirtmam Bulut Simdi (My Kite is Cloud Now)' by Ak (2015), pages 26–29. The story was edited and shortened by a Turkish language educator in order to make the text appropriate for the fourth-grade level readers. The final story text was evaluated by three Turkish language experts regarding the word count, length of sentences, subject, language and expression characteristics, text size, language knowledge rules and overall suitability for fourth-grade readers. A consensus on the suitability of the text for use in the study according to the above mentioned criteria was achieved by the three experts consulted. The story text consisted of 384 words making up 79 total sentences. The mean length of each sentence was 4.87 words per sentence, and the text was printed in 12 point size Calibri style font with the sentences spaced 1.5 between lines. Also, no other visuals beside the text printed on the paper were presented to the students for the reading task.

#### **2.3.2. Informative text**

The informative text utilised in this study was 'Doganın Izinde (Track on of the Nature)' an excerpt from the book, 'Neden ve Nasıl Doga (Why and How the Nature?)' written by Mertiny (2006) and translated by Sevtap Emir, pages 45–47. The story was edited and shortened by a Turkish language educator in order to make the text appropriate for the fourth-grade-level readers. The final version of the informative text was also evaluated by three Turkish language experts regarding word count, length of sentences, subject, language and expression characteristics, text size, language knowledge rules and overall suitability for fourth-grade readers. Again, the experts reached a consensus on the suitability of the text for use in the study. The final version of the informative text utilized in this study included 324 words from a total of 26 sentences. The mean length of each sentence was 12.47 words per sentence, and the text presented to the students was printed in 12-point size Calibri font with 1.5-line spacing between sentences. No other visuals other than the printed text were presented to the students for their reading task.

#### **2.3.3. Assessment form for text reading skills**

This form was used to record the reading rate of the participating students as well calculating their reading errors through a grouping procedure. The reading skills assessment form utilized in this research consisted of portions of the *Text Reading Skills Assessment Form* excerpted from Baydik (2012). The error groups established for this study derive from the literature review as well as from this study's observations and are as follows.

#### **2.3.4. General error groups**

- Mispronunciation: Pronunciation of a word incorrectly. This has been examined in three groups as follows by taking the early reading developmental stages into consideration.
- (Reading the word as a pseudo-word. For example, /dogadir/ replaced by /dugadir/)
- (Reading the word as visually similar real words. For example, /kanunlarla/ replaced by /konularla/).
- (Reading the word as visually dissimilar real words. For example, /ilk/ replaced by /bir/)
- Word substitution: In the study, this error type was taken as a word that may make sense in the passage. For example, /sisman/ replaced by /iri/ (no such errors were encountered in this study)

- Word insertion: Adding a word to the sentence, which is not a part of it. It can be proper or not to context. For example, Reading the sentence /Hic aldirmadim./ by adding the word /bir/ /Hic bir aldirmadim./.
- Word omission: Reading by omitting one or more words in a sentence. For example, omitting the word /yana/ in the sentence /Uyandigimda yastigim yana kaymisti./ and reading it as /Uyandigimda yastigim kaymisti./.
- Repeating part of the word: Reading the word by repeating part of it. For example, /bisikletimin/ replaced by /bisikbisikletimin/.
- Word repetition: Reading the same, complete word by repeating it once or more. For example, /yol/ replaced by /yol yol/.
- Repeating the word group: Reading consecutive, more than one word in a sentence by repeating it. For example, /her gun/ replaced by /her gun her gun/.
- Changing the words' place: Reading the words in the sentence by changing their positions. For example, /Ne yapacagim simdi?/ replaced by /Simdi ne yapacagim?/
- Self-correction: Reading the word incorrectly first, then reading it correctly. For example, Reading the sentence /Heyecanla yastigi kaldirdim./ as /Heyecanla yastigi kaldirip kaldirdim./ The word /kaldirdim/ was read incorrectly initially but then corrected.
- Reading word by dividing syllables incorrectly: Reading the word without paying attention to its' syllable boundary. For example, Reading /a-lay/ as /al-ay/.
- **2.3.5. Errors made while reading the word**
- Letter omission: Reading a word by omitting one or more letters in it. For example, /bunlarin/ replaced by /bunlari/
- Syllable omission: Reading a word by omitting one or more syllables in it. For example, /gozlugumu/ replaced by /gozlugu/.
- Letter insertion: Reading a word by adding one or more letters which is/are not in the word. For example, /dogadir/ replaced by /dogaldir/.
- Syllable insertion: Reading a word by adding one or more syllables which is/are not in the word. For example, /gosterme/ replaced by /gostermeyin/.
- Letter substitution: Reading a word's one or more letters by replacing it/them with another letter. For example, /koyu/ replaced by /koyu/.
- Word part reversal: Reading part of the word or syllable by reversing its' position. For example, /herkes/ replaced by /hersek/.
- Letter reversal: Reading one or more letters in the word by reversing and reading it/them as a different letter. For example, /b/ replaced by /p/. (In the sentence /Ben de bisikletimi yaglayip mahallede dolasmaya ciktim./, reading the word /bisikletimi/ as /pisikletimi/)
- Word-final substitution: Reading the word's ending differently. For example, /kazanilir/ replaced by /kazanabilir/.
- Changing the position of the syllables: Reading by changing the position of the word's two syllables. For example, reading /korumayacagini/ replaced by /koruyamacagini/.

### **2.3.5. Multidimensional fluency scale**

In order to examine and collect data regarding the students' reading prosody characteristics this study utilized the *Multidimensional Fluency Scale* adapted for Turkish from Seckin and Baydik (2017). The scale was prepared by Zutell and Rasinski in 1991 and renewed by Rasinski (2004). It is a rubric which is comprised of four dimensions including expression and volume, phrasing, smoothness and pace. The scale for students' scores is between 4 and 16. Scores of 10 or higher indicate that the student has made a sufficient progress in prosodic reading. Scores lower than 10 indicate that the student is in need of additional instruction to improve their prosodic reading. As a special case for the Turkish speaking children with reading difficulties, the Turkish version of the rubric observation scale's pace dimension allowed for two scores to be achieved, in addition to 'reads slowly' (e.g., reads somewhat slowly), 'reads very fast' was also added for the children who attempted to read very fast in addition to those who read very slowly. The reason for this addition to the scale was that observations

revealed that when reading fluency was taken into account this overly rapid reading could produce negative results. Again, this was determined because children who engaged in attempting to read too quickly exhibited mispronunciation, repetition, self-correction and improper prosody characteristics.

#### 2.4. Data collection and analysis

The data were collected at the students' school in the month of October during the 2015–2016 academic year. The first author, serving as the examiner, conducted individual sessions with the students. When the text was presented to the students, they were asked to read carefully and without interruption as soon as the examiner placed the text on the table. They were also informed that their reading would be recorded and that the examiner would check her chronometer when they began reading and again when they finished. The students were instructed to read the whole text and when a student could not read a word, examiner waited for a 5-second period and then signed for the student to proceed to the next word by asking him/her to continue reading. The word the student could not read was recorded as an 'omitted word'. In the cases of omitting lines, getting side-tracked and/or repeating lines, the examiner pointed out to the student where to continue and kept a record of this point. The texts were given students in a mixed order to prevent order effect and each subject's reading was audio recorded.

To determine the reading rate, first, the reading time of students and the number of words read correctly for whole text were estimated and, then reading rates were calculated. For the analysis of reading errors, the different errors observed in the study, in addition to the errors which took place for the *Assessment Form for Text Reading Skills* by Baydik (2012), were taken into account. Errors were counted, analysed and recorded separately for the two different types of texts in the form. Students' reading prosody scores for both types of text were estimated according to the four dimensions of the *Multidimensional Fluency Scale* (e.g., expression and volume, phrasing, smoothness and pace) as well as the total.

Inter-rater reliability was estimated for reading rate and reading error characteristics, and for frequency. In order to estimate the inter-rater reliability, the same type of observations and measurements were conducted by the second author through a listening review of the audio recordings of 45 randomly chosen students out of 56 students recorded. The inter-rater reliability scores were presented in Table 1 of this study. The concordance coefficient measures obtained by agreement of the two raters for the same subject under the same conditions was estimated by using a non-parametric statistic, Kendall's Coefficient of Concordance (W) (Yelboga & Tavsancil, 2010). The reliability measures revealed a positive, meaningful relation at a high level (see Table 1).

**Table 1. Coefficient of concordance rates of the measurements**

Measurement	Story text	Informative text
Reading rate	1, $p = 0.000$	1, $p = 0.000$
Reading accuracy	0.99, $p = 0.000$	1, $p = 0.000$
Total prosody score	0.91, $p = 0.000$	0.94, $p = 0.000$
(Expression and volume)	0.91, $p = 0.000$	0.91, $p = 0.000$
(Phrasing)	0.89, $p = 0.000$	0.90, $p = 0.000$
(Smoothness)	0.87, $p = 0.000$	0.87, $p = 0.000$
(Pace)	0.97, $p = 0.000$	0.93, $p = 0.000$
Mispronunciation	0.98, $p = 0.000$	0.96, $p = 0.000$
Word insertion	1, $p = 0.000$	0.92, $p = 0.000$
Word omission	0.92, $p = 0.000$	0.98, $p = 0.000$
Repeating part of the word	0.97, $p = 0.000$	1, $p = 0.000$
Word repetition	0.99, $p = 0.000$	0.99, $p = 0.000$
Self-correction	0.98, $p = 0.000$	0.98, $p = 0.000$
Reading word by dividing syllables incorrectly	No error.	No error.

Letter omission	0.96, $p = 0.000$	0.99, $p = 0.000$
Syllable omission	0.1, $p = 0.000$	0.99, $p = 0.000$
Letter insertion	1, $p = 0.000$	0.98, $p = 0.000$
Repeating a word group	1, $p = 0.000$	1, $p = 0.000$
Syllable insertion	1, $p = 0.000$	1, $p = 0.000$
Letter substitution	0.93, $p = 0.000$	0.95, $p = 0.000$
Word part reversal	0.89, $p = 0.000$	0.89, $p = 0.000$
Letter reversal	No error.	No error.
Word-final substitution	0.87, $p = 0.000$	0.92, $p = 0.000$
Syllables reversal	No error.	No error.

\* $p < 0.05$ .

### 3. Results

In this section, the results were presented according to the research question categories.

#### 3.1. The results of comparing reading rates

Related Samples  $t$ -test results (Table 2) revealed that the students' reading rates were higher for informative text.

**Table 2. The results of related samples  $t$ -test and descriptive statistics**

Statistics	Reading rate	
	Story	Informative
N	56	56
M	70.3	76.82
Mdn	75	80
SD	24.3	23.61
Min.	28	32
Max.	112	117
Skew	-0.22	-0.21
Kurtosis	-1.01	-1.02
K-S	0.98, $p = 0.2$	0.97, $p = 0.2$
Related samples $t$ test	$t(55) = -5.64, p = 0.000^*$	

\* $p < 0.05$ . SD = standard deviation.

#### 3.2. The results of comparing reading errors frequencies

The students produced more mispronunciation, word insertion, repetition of word part, self-correction, letter insertion-omission, syllable omission, letter substitution and reversing errors in the informative text. However, they made more word-final substitution error type in the story (Table 3). As it was seen in Table 4, the majority of mispronunciations produced by the students occurred when reading the word as a visually similar word for both the story text (78%) and the informative text (79%). Table 5 illustrates examples of the students' reading errors.

**Table 3. The results of Wilcoxon signed ranks test**

Errors	Story text		Informative text		Z	p
	Mean rank	Rank sum	Mean rank	Rank sum		
Mispronunciation	15.07	211	30.14	1,115	-4.24	0.000*
Word insertion	9.50	57	14.11	268	-2.97	0.003*
Word omission	17.39	243.50	16.71	317.50	-0.68	0.498
Repeating part of the word	18.82	320	28.28	905	-2.92	0.003*

Word repetition	24.18	483.50	24.73	693.50	-1.08	0.281
Repeating a word group	17.25	241.50	20.07	461.50	-1.70	0.089
Self-correction	24.07	337	26.73	989	-3.06	0.000*
Letter insertion	15.55	171	26	910	-4.06	0.000*
Letter omission	15.95	175.50	29.89	1255.5	-4.80	0.000*
Syllable insertion	25.69	539.50	24.48	685.50	-0.74	0.461
Syllable omission	16.50	132	26.10	1044	-4.70	0.000*
Letter substitution	19.64	275	24.52	760	-2.75	0.006*
Word part reversal	6.50	32.50	6.50	45.50	-0.58	0.564
Letter reversal	2	2	4.33	26	-2.06	0.040*
Word-final substitution	10.47	167.50	7.50	22.50	-3.06	0.002*

\* $p < 0.05$ .

**Table 4. Distribution of errors**

Type of error	Story		Informative text	
	<i>f</i>	%	<i>f</i>	
Total	1,148	100	892	100
Non-word	206	18	114	13
Visually similar	906	78	710	79
Visually dissimilar	36	4	68	8

**Table 5. Examples of reading errors**

Errors	Examples of errors in the story text	Examples of errors in the informative text
Mispronunciation	/fistiklisindan/ replaced by /fistiklarin/	/yollarla/ replaced by /yollara/
Word insertion	/ama babama soyleyemem artik/ replaced by /ama babama ben soyleyemem artik/	/hatta insan bile doganın bir parcasidir/ replaced by /hatta insan bir bir doganın bir parcasidir/
Word omission	/yokus asagi inanılmaz bir hizla iniyorduk/ replaced by /yokus asagi inanılmaz hizla iniyorduk/	/mevsimlerin degismesiyle bircok ilginç olay da kendini gosterir/ replaced by /mevsimlerin degismesiyle bircok ilginç olay kendini gosterir/
Repeating part of the word	/mahallemiz/ replaced by /mahmahallemiz/	/kusatan/ replaced by /kuskusatan/
Word repetition	/yatacagimi/ replaced by /yatacagimi yatacagimi/	/tum/ replaced by /tum tum/
Repeating a word group	/bir bana/ replaced by /bir bana bir bana/	/su ki insan/ replaced by /su ki insan su ki insan/
Self-correction	/her zamanki cevigliyle arkamda atladi/ corrected to /her zamanki cevigliyle arkama atladi/	/nerede her zaman burada olmuyor/ corrected to /neden her zaman burada olmuyor/
Letter insertion	/ikilemisti/ replaced by /ikilesmisti/	/yasami/ replaced by /yasamin/
Letter omission	/ikilesmisti/ replaced by /ikilemisti/	/yasamin/ replaced by /yasami/
Syllable insertion	/gosterme/ replaced by /gostermeyin/	/korumayacagini/ replaced by /koruyamayacagini/
Syllable omission	/karsilasacaksin/ replaced by /karsilacaksin/	/altinda/ replaced by /altin/
Letter substitution	/koyu/ replaced by /koyu/	/dusunse/ replaced by /dusunce/
Word part reversal	/aynaya/ replaced by /yanaya/	/herkes/ replaced by /hersek/
Letter reversal	/bisikletimin/ replaced by /pisikletimin/	/babama/ replaced by /dadama/

Word-final substitution /kurtulamamistim/ replaced by /kazanilir/ replaced by /kazanabilir/  
/kurtulmustum/

### 3.3. The results of comparing reading prosody scores

An examination of Table 6 reveals that while the students obtained higher expression and volume scores for informative text reading, they in fact read the story text at a more appropriate pace. Table 7 shows the descriptive statistics of prosody scores by the students.

**Table 6. Results of the Wilcoxon signed ranks test**

Dimension	Text genre	N	Mean rank	Sum of rank	Z, p
Expression and volume	Story	56	9.50	38	-2.56, $p = 0.011^*$
	Informative	56	10.13	152	
Phrasing	Story	56	8.50	68	-0.83, $p = .405$
	Informative	56	10.30	103	
Smoothness	Story	56	11.67	105	-0.41, $p = 0.683$
	Informative	56	10.50	126	
Pace	Story	56	7.30	73	-2.07, $p = 0.039^*$
	Informative	56	6.00	18	
Total	Story	56	16.27	211.50	-1.25, $p = 0.211$
	Informative	56	17.48	349.50	

\* $p < 0.05$ .

**Table 7. Descriptive statistics of prosody scores**

Dimension	Text genre	n	Mdn	M	Min.	Max.	SD	Skew	Kurtosis	K-S
Expression and volume	Story	56	3	2.86	1	4	1.03	-0.52	-0.85	0.23, $p = 0.051$
	Informative	56	3	2.64	1	4	0.92	-0.65	-0.42	0.35, $p = 0.026^*$
Phrasing	Story	56	2	2.29	1	4	1.06	0.25	-1.14	0.20, $p = 0.000^*$
	Informative	56	2	2.21	1	4	0.99	0.38	-0.83	0.23, $p = 0.000^*$
Smoothness	Story	56	3	2.50	1	4	1.11	-0.04	-1.33	0.19, $p = 0.000^*$
	Informative	56	3	2.46	1	4	1.06	-0.09	-1.22	0.23, $p = 0.000^*$
Pace	Story	56	3	2.54	1	4	1.17	-0.05	-1.48	0.18, $p = 0.000^*$
	Informative	56	3	2.70	1	4	1.13	-0.31	-1.27	0.21, $p = 0.000^*$
Total	Story	56	11	10.25	4	16	4.10	-0.04	-1.33	0.12, $p = 0.000^*$
	Informative	56	11	9.98	4	16	3.69	-0.11	-1.08	0.13, $p = 0.000^*$

\* $p < 0.05$ .

## 4. Discussion

The results of the study showed that students exhibited higher reading rates when reading the informative text but made more mispronunciation, word insertion, repetition of word parts, self-

correction, letter insertion–omission, syllable omission, letter substitution and reversal errors in the informative text. Most of the mistakes were made in the informative text, despite there being a higher reading rate. This demonstrates that the informative text was read at a quicker pace but also with a higher number of errors. More erratic reading is expected for informative text, but the higher reading rate is not.

The informative text used in the study has more mean length sentence (12.47) than the story (4.87), so longer and more complex sentences. In the literature, informative text specifies that they are difficult for students due to the introduction of new concepts, unfamiliar and difficult words, overall complexity and being in a unique format (Dymock, 2007). Findings of studies comparing students' reading performances in informative text and story showed that informative texts were read with more errors and less reading rate (Baydik & Seckin, 2012; Saenz & Fuchs, 2002), in addition with difficulty in comprehension (Baydik & Seckin, 2012; Best, Floyd & McNamara, 2008; Temizyurek, 2008; Vatanserver Bayraktar, 2015; Yildirim, Yildiz & Ates, 2011; Yildirim, Yildiz, Ates & Rasinski, 2010). The reason why the reading rate of the informative text is higher, unlike the findings in the literature, may be related to the story text used in this study containing an overabundance of dialogs and as a result taking a longer amount of time to read than the informative text. One of the limitations of this study was that participants' reading performances were not compared with their peers without reading difficulties. If this comparison could have been made, a better interpretation of the cause of unexpected findings could have been made.

The review of prosody results of studies showed that even though students had higher expression and volume scores when reading informative texts, their reading pace results for story texts were more fitting to result norms. Even though it is our assertion that a limitation of the study could occur as a result of not assessing reading comprehension; other studies in the relevant research literature showed a positive relation between students' prosody scores and their reading comprehension skills (Goswami et al., 2002; Schrauben, 2010; Whalley & Hansen, 2006).

The highest score that can be obtained for expression and volume on the Rasinski's (2010) scoring tool, which was utilised for this study, is 'Reading with a different volume and expression is like talking to a friend as following a text'. When reviewing the dimension which was researched in this study, the results of higher scores when reading the informative text were unexpected. It is surprising to reach these results assuming that the story format was more familiar to the students as well as they are having a greater familiarity with the vocabulary presented in the story text. However, the students were also found to be more successful in the story reading pace dimension which was measured by the same tool. The only condition necessary for achieving the highest score for reading pace was to not read too fast or too slow but instead, 'to read at speech rate'. During observations, two researchers listened to audio recordings of students' reading and recognized some students read at a fast rate. Another observation made by the two observers was that the same students also read at a fast rate when reading the informative text. Of course, the fact that the prosody evaluations in this study are subjective prevents the researchers from making firm conclusions; however, the fact that the students were more successful reading at speech rate may be due to the story format determined in this study was that there were fewer number of words read incorrectly when reading the story text, and it contains an overabundance of dialogs.

It is important to note that the students were assigned by the teachers in the study. In this case, demographic information of teachers should be present in the method section. This is a limitation presented by the study. The results of the study showed that teachers need to use different types of informative texts (e.g., description, temporal/sequence/chronological orders, compare-contrast, problem and solution, cause–effect) as well as narratives in Turkish instruction in Turkey (Eason et al., 2012). Review of studies from Turkey revealed the importance of this finding; for example, in the Baydik and Bayraktar's (2013) study, it was determined that in the distribution of text genres for the third- and fourth-grade-level Turkish textbooks, informative texts appeared in fewer numbers and that almost all of the informative texts were descriptive in nature. The format of informative text

utilised in the study was a problem and a solution. For example, teachers should use texts at the instructional level of their students in order to increase the students reading rate and accuracy as well as to support students' prosodic reading development. Furthermore, in an effort to support fluency, using informative texts in proportion to story text and focusing on word instruction (e.g., both visual and oral) can ultimately improve students' success in reading the informative texts.

## 5. Conclusions and recommendations

It was concluded that although reading rates of students were higher when reading the informative text, they had also produced a higher number of errors for this text genre. This finding revealed that the informative text was completed in a shorter amount of time but more errors occurred than when reading the story text. The reason for these results may be related to the story text used in this study containing an overabundance of dialogs and as a result of taking a longer amount of time to read than the informative text. Also important for these findings is that even though the informative text appears easier to read, it was read more inaccurately than the story text. If the study had included a reading comprehension skill assessment and allowed for peer comparisons of students' reading skills, it may have provided more accurate and effusive information on which to comment.

In addition, the high number of mispronunciations produced by students when reading words as visually similar words from both the story text (78%) and informative text (79%) was also of significance. In many cases, the students read by guessing words regardless of which text genre they were reading. The findings of this study make it abundantly clear that all stakeholders involved including educators, researchers, teachers, family members, caretakers and so on should continue to work diligently in organising reading instruction and reading interventions that support reading fluency among all readers and for all text genres.

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