



An evaluation of the oral reading fluency of 4th graders with respect to prosodic characteristic

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Abstract

This study examined the oral reading fluency of 4th graders with respect to prosodic characteristics. Seventy 4th graders participated in the study. They were initially asked to read a grade-level passage and their reading was video recorded. Their reading errors were identified and their word correct per minute (WCPM) was determined. Their oral reading skills were also evaluated with respect to prosodic characteristics by using the Multidimensional Fluency Scale criteria. The results showed that their WCPM was close to the norms of the 4th grade. However, a significant part of students (40%) were noted to have problems with prosodic reading skills. Further, a positive and meaningful relationship was observed between WCPM and prosodic reading skills. It was concluded that activities and studies promoting prosodic reading skills should be given more emphasis in primary schools.

Keywords: prosody; prosodic reading; fluency; reading fluency; elementary school.

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Introduction

Successful reading requires readers to process the text (the surface level of reading) and comprehend it (the deeper meaning). Reading fluency refers to the reader's ability to develop control over surface-level text processing so that he or she can focus on understanding the deeper levels of meaning embedded in the text (Rasinski, 2004). Reading fluency is one of the defining characteristics of good readers, and a lack of fluency is a common characteristic of poor readers. Differences in reading fluency not only distinguish good readers from poor, but a lack of reading fluency is also a reliable predictor of reading comprehension problems (Stanovich, 1991). Once struggling readers learn sound-symbol relationships through intervention and become accurate decoders, lack of fluency emerges as the next hurdle on their way to reading proficiency (Torgesen et al., 2001; Torgesen, Rashotte, Alexander, Alexander & MacPhee, 2003). This lack of fluent reading is a problem for poor readers because they tend to read in a labored, disconnected fashion with a focus on decoding at the word level that makes comprehension of the text difficult, if not impossible.

Reading fluency has three important dimensions that build a bridge to comprehension. The first dimension is accuracy in word decoding. Readers must be able to sound out the words in a text with minimal errors. In terms of skills, this dimension refers to phonics and other strategies for decoding words. The second dimension is automatic processing. Readers need to expend as little mental effort as possible in the decoding aspect of reading so that they can use their finite cognitive resources for meaning making (LaBerge & Samuels, 1974). The third dimension is what linguists call prosodic reading (Schreiber, 1980, 1991; Schreiber & Read, 1980).

A fluent reader can maintain this performance for long periods of time, can retain the skill after long periods of no practice, and can generalize across texts. A fluent reader is also not easily distracted and reads in an effortless, flowing manner. The most compelling reason to focus instructional efforts on students becoming fluent readers is the strong correlation between reading fluency and reading comprehension (Allington, 1983; Johns, 1993; Samuels, 1988; Schreiber, 1980). Each aspect of fluency has a clear connection to text comprehension. Without accurate word reading, the reader will have no access to the author's intended meaning, and inaccurate word reading can lead to misinterpretations of the text. Poor automaticity in word reading or slow, laborious movement through the text taxes

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the reader's capacity to construct an ongoing interpretation of the text. Poor prosody can lead to confusion through inappropriate or meaningless groupings of words or through inappropriate applications of expression (Hudson, Lane & Pullen, 2005).

Prosody is a linguistic term to describe the rhythmic and tonal aspects of speech: the "music" of oral language. Prosodic features are variations in pitch (intonation), stress patterns (syllable prominence), and duration (length of time) that contribute to expressive reading of a text (Allington, 1983; Dowhower, 1991; Schreiber, 1980).

A student's reading prosody can be measured only through observation of an oral reading of a connected text. During the reading of a passage, a teacher can listen to the student's inflection, expression, and phrase boundaries. A more quantifiable scale that provides a score that can be used to compare a student against him or herself across time or between students in a class or school can be found in Zutell and Rasinski (1991). Prosody in oral reading should signal reading comprehension of the reader and enhance listening comprehension of the listener. That is, prosodic readers understand what they read and make it easier for others to understand as well.

As can be seen from the literature, prosody is critical in developing reading fluency and comprehension. A review of studies on reading skills conducted in Turkey shows that not many studies have focused on prosodic characteristics. Also, prosodic skills are mostly connected with the music class, and not always emphasized as a reading skill. Prosody has been defined as the harmony between syllable and musical stress in a poem composition, and the entire set of rules about this (Türkçe Sözlük [TDK], 2005). Due to the reasons listed, a need for this study was felt. In this study, the oral reading skills of primary 4th grade students were evaluated from a prosodic perspective. The relationship between WCPM and prosodic reading skills was also examined.

Method

Instrument

The best way to assess prosodic reading is to listen to a student read a grade-level passage and then judge the quality of the reading using a rubric that scores a student on the

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elements of expression and volume, phrasing, smoothness, and pace. Students who score poorly may be considered at risk in this dimension of reading fluency (Rasinski, 2004). This study utilized the Multidimensional Fluency Scale developed by Rasinski (2004) to evaluate prosodic reading skills. The scale has the following four main dimensions: a) expression and volume, b) phrasing, c) smoothness and d) pace. Students can score between a minimum of 4 and a maximum of 16 on the score. Those who score below 8 have problems in fluency, and those above 8 are considered to be developing. Consent was obtained to use the scale in this study.

Participants

The participants in the study were 70 fourth grade students (9-10 years of age) from a primary state school in Ankara, Turkey. Students who were enrolled for this research were selected at random. A total of 34 girls and 36 boys eventually participated in the study.

Procedure

Initially, a reading passage on the 4th grade level was identified. Participants were asked to read it aloud for five minutes, during which they were video-taped. Following the identification of their reading errors, their words correct per minute (WCPM) was established. The oral reading of participants were evaluated separately by using the Multidimensional Fluency Scale and then compared with one another. This yielded a prosodic reading score ranging between 4 and 16 for each individual student. Statistical operations were conducted on WCPM and prosodic reading scores.

Results

The mean and standard deviation values of students' WCPM and prosodic reading scores are shown in Table 1.

Table 1

Descriptive Statistics on Students' WCPM and Prosodic Reading Levels

	<i>N</i>	<i>Mean</i>	<i>SD</i>
WCPM	70	87.18	26.71
Prosodic Reading	70	8.97	2.99

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Table 1 shows that students' mean WCPM was 87.18 with the standard deviation of 26.71 ($M = 87.18, SD = 26.71$), while their mean prosodic reading score was 8.97 with the standard deviation of 2.99 ($M = 6.81, SD = 3.16$). Table 2 presents the levels of students with respect to their prosodic reading skills.

Table 2

Percentages and Frequency Distributions of Students' Prosodic Reading Levels

	<i>F</i>	<i>%</i>
Concern	28	40.0
Good Progress	42	60.0
Total	70	100.0

Table 2 shows that 28 students (40.0%) had problematic prosodic reading level and 42 (60.0%) had good progress. The relationship between students' prosodic reading skills and their WCPM was determined by using the Pearson Correlation Coefficient statistical technique. Results are given in Table 3.

Table 3

The Relationship between WCPM and Prosodic Reading Skills

		WCPM	Prosodic Reading
Reading Prosody	Pearson Correlation	1	,741(**)
	Sig. (2-tailed)		,000
	N	70	70
WCPM	Pearson Correlation	,741(**)	1
	Sig. (2-tailed)	,000	
	N	70	70

** Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows a positive and meaningful relationship between students WCPM and prosodic reading skills ($r = .74, p < .01$). According to this, as students' prosodic reading skills increase, so does their WCPM.

Discussion

Several researchers have previously studied Turkish primary school pupils' WCPM. Tazebay (1995) studied the WCPM of third and fourth graders and concluded that it was 80.65 words; Erden et al. (2002) studied fourth graders and found 97.07 words; Akyol and Temur (2006) stated that third graders read informative passages with 74.13 words and

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narrative passages with 77.2 words, Ateş and Yıldız (2007) studied third graders and concluded that they read 75.38 words. The norm WCPM for fourth graders in the fall semester was reported to be between 70 and 110 (Hasbrouck and Tindal, 1992). The mean WCPM of the fourth graders' in the present study was 87.18, thus placing them within the norms reached by previous studies.

The mean prosodic reading skills score of the participants of this study was 8.97 out of a total of 16 points. As 28 students (40%) scored below 8 on the Multidimensional Fluency Scale, their prosodic reading was decided to be problematic. These results suggest that students are not as successful at prosodic reading as they are in speed reading. In other words, while the participants met the national and international standards with respect to speed reading, this was not the case for prosody.

The absence of similar studies assessing students' prosodic reading skills limits the discussion to be made here. However, certain studies have examined prosodic characteristics under different names. While Ateş and Yıldız (2007) examined several characteristics covered by prosody such as a lack of intonation, stress and punctuation under the name negative reading habits, Sidekli et al. (2007) studied these under the name oral reading errors. Both studies showed that these characteristics were the most commonly recurring errors, thus suggesting that students' prosodic reading was inadequate.

The common error of not paying attention to stress, intonation and punctuation may be explained with the fact that teachers focus solely on teaching reading skills during the early first stage of primary education, and do not spare much time on developing fluent reading skills. Teachers may thus be emphasizing being able to read at the expense of reading according to rules (Ateş & Yıldız, 2007). However, these skills are so important that they cannot be preferred over one another. The results of this study shows that students with progressing prosodic reading skills also have increased reading speed. Teachers should therefore spend more time on teaching prosodic reading skills if they wish to improve their reading speed and comprehension levels.

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