

Effect of Prosodic Reading on Listening Comprehension

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Abstract: The purpose of this paper is to examine the effects of prosodic reading on listening comprehension. Two classes of an elementary school were randomly selected for this research. Then, an appropriate narrative was chosen for use with fifth graders. This text was read to one of the groups by paying attention to prosodic characteristics, while reading for the other group did not involve prosodic characteristics. This was followed by both groups answering a comprehension test about the text. Findings gave shown that the group which experienced prosodic reading was better at listening comprehension than the other group.

Key words: Reading fluency · Prosodic reading · Listening comprehension

INTRODUCTION

A growing body of evidence points to reading fluency as an important factor in student reading success. Reading fluency refers to the smooth and natural oral production of written text [1,2]. Fluency is an aspect of reading that deserves considerable attention. In school settings, judgments about reading ability are often made on the basis of students' oral reading fluency [3]. Thus, teachers, researchers, parents and children alike generally agree on the importance of fluency.

Since the publication of the National Reading Panel report [4] and other recent scholarly reviews of scientific research [5-7], reading fluency has taken a front seat in discussions about student reading success and effective instruction in reading. Yet programs and materials addressing reading instruction and teacher training seldom tackle reading fluency. This lack may be due to the fact that fluency has long been associated with oral reading, a form of reading traditionally viewed as having little importance in learning to read [8-10].

Defining reading fluency may help clarify the issue. Successful reading requires readers to process the text (the surface level of reading) and comprehend the text (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 [1,2, 10].

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 [11,12]. The third dimension is what linguists call prosodic reading [13,14]. The reader must parse the text into syntactically and semantically appropriate units. If readers read quickly and accurately but with no expression in their voices, if they place equal emphasis on every word and have no sense of phrasing and if they ignore most punctuation, blowing through periods and other markers that indicate pauses, then it is unlikely that they will fully understand the text [10].

While it is good for readers to have the additional cognitive capacity that comes from automaticity in word decoding, they also need to actively use that capacity to make sense of the text. Readers can employ their attention for comprehension or for other tasks. All readers have had

the experience of accurately and automatically decoding words while thinking about something else and, as a result, not comprehend the passage [1].

This is the point where fluency connects directly to comprehension. The prosody component of reading fluency stresses the appropriate use of phrasing and expression [15,13,14]. When readers embed appropriate volume, tone, emphasis, phrasing and other elements in oral expression, they are giving evidence of actively interpreting or constructing meaning from the text. Just as fluent musicians interpret or construct meaning from a musical score through phrasing, emphasis and variations in tone and volume, fluent readers use cognitive resources to construct meaning through expressive interpretation of the text [10].

Schreiber [13] suggested that fluent readers use other cues (i.e., morphemic, syntactic, semantic and pragmatic) present in the text to organize it into meaningful phrases and read with correct prosody (i.e., reading that sounds like speaking). Struggling readers are often characterized as reading in a monotone without expression or with inappropriate phrasing. Because prosody and reading comprehension seem to have a reciprocal relationship, prosody is an important area of focus for fluency instruction.

Prosodic reading provides evidence that the reader understands what is being read [6]. Despite this connection, little research has been conducted exploring the relationship between prosody and comprehension [9,16,17]. Most of these particularly center around the relationship between the other dimensions of fluent reading, reading accuracy and reading rate and comprehension [15,7,10,13,14]. There seems to be no studies conducted in Turkey investigating the association of prosodic reading and comprehension. It is due to this gap in the literature that the present study investigates the effects of prosodic reading on listening comprehension.

MATERIALS AND METHODS

Subjects: Seventy-two fifth-grade students (35 males and 37 females) selected from a randomly selected elementary school in Ankara, Turkey participated in the research. The instrument (comprehension test) was conducted in two randomly selected classrooms from this school.

Instrument: A 15-item listening comprehension test based on the narrative chosen by the researchers was

developed in order to measure students' listening comprehension skills. The test comprised 7 open-ended and 8 multiple choice questions measuring both basic and in-depth understanding. In multiple choice questions, correct responses received "1" point and incorrect responses received "0". In open-ended questions, a three-item scoring was used, allocating "1" point to fully correct responses, "0.5" to partially correct responses and "0" to incorrect responses. Total points on the test thus ranged between "0" and "15". The statistical analyses used in the comparison of groups were held over students' total test scores.

Procedure: An appropriate narrative text for fifth graders was chosen. This text was read to one of the groups by taking into consideration the prosodic characteristics according to Rasinski's [10] "Multidimensional Fluency Scale". The other group was read the same text flatly by ignoring prosodic characteristics. Following these readings, the students were asked to complete the listening comprehension test. Then statistical analyses were performed on the data obtained.

RESULTS

Independent-samples *t* test was used to determine whether there is a meaningful difference between the listening comprehension total scores of students who were exposed to prosodic and nonprosodic reading. The means and standard deviations pertaining to the two groups are presented in Table 1.

The Levene's Test for homogeneity of variance indicated that group variances were equal ($p=0.81$). Therefore, the null hypothesis of equal variance was retained. Independent-sample *t* test was used to determine whether the listening comprehension total scores of students who did prosodic and nonprosodic listening differed meaningfully. The test was significant, $t_{(70)} = 2.160$, $p = 0.03$. The group who did prosodic listening ($M = 8.48$, $SD = 3.35$) was better at listening comprehension than the group who did nonprosodic listening ($M = 6.81$, $SD = 3.16$), thus suggesting that prosodic reading increases listening comprehension. The 95% confidence interval for the difference in means was quite wide, ranging from 0.12 to 3.21. The standardized effect size index, *d*, (Cohen's *d*) for this data was 0.51, a medium effect size. Figure 1 shows the distribution for the two groups.

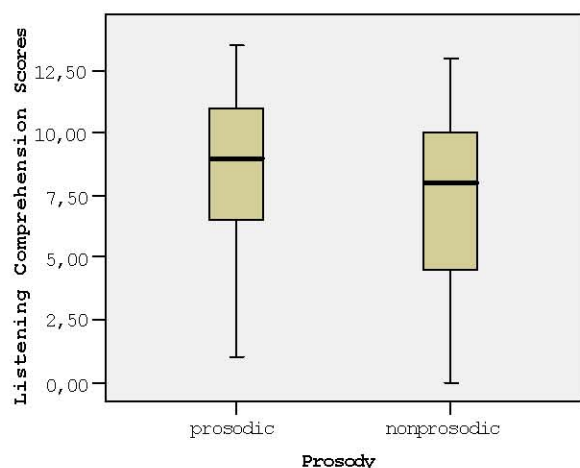


Fig. 1: Distributions of listening comprehension scores by prosody

Table 1: Means and standard deviations for students who did prosodic and non-prosodic listening

	<i>N</i>	<i>M</i>	<i>SD</i>
Those who did prosodic listening	39	8.48	3.35
Those who did nonprosodic listening	33	6.81	3.16

DISCUSSION

The aim of this study was to determine the effectiveness of prosodic reading on listening comprehension. Based on the research presented in this paper, the study not only has significant practical implications for classroom teachers in Turkey, but also provides contributions to the current literature on reading fluency and prosodic reading. Our findings indicate that prosodic reading is effective in listening comprehension in that the group which experienced prosodic reading had better listening comprehension than the group which experienced nonprosodic reading.

The most compelling reason to focus instructional efforts on students becoming fluent readers is the strong correlation between reading fluency and comprehension [13]. 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 the reader's capacity to construct an ongoing interpretation of the text. Similarly, poor prosody can lead to confusion through inappropriate or meaningless groupings of words or through inappropriate applications of expression [9].

Prosodic reading is the ability to read in expressive rhythmic and melodic patterns, which educators call reading with expression. Scholars investigating prosody specifically in reading have identified at least six markers related to expressive reading. The following section describes these prosodic indicators: (a) presence or lack of pausal intrusions, (b) length of phrases between pauses, (c) number of appropriate and inappropriate phrases, (d) durations of final words of syntactic phrases, (e) the change of pitch at final punctuation marks and (f) stress or accent [18]. Reading a text by paying attention to all of these markers will benefit the understanding of both the reader and the listener [9,1,13,14].

Dowhower [18] found in his study that second graders who read slowly had about three inappropriate pauses per sentence before a repeated reading intervention. After practicing five stories repeatedly, these children gained reading accuracy, rate and comprehension and significantly decreased the number of pausal intrusions in the practiced stories. Moreover, these gains carried over to a new unpracticed story. One conclusion from these studies is that few pausal intrusions within words and syntactic units would be indicative of skill in prosodic reading. Also, it seems that if pauses are inappropriate, comprehension would be adversely affected. Our study has also shown that nonprosodic reading adversely affects comprehension. Other rare studies on this topic also indicate a strong positive relation between prosodic reading and comprehension [16,14,17,19].

Educators have long regarded reading with expression as a necessary and defining feature of skilled fluent reading. However, as a component of fluency, reading with expression has been a vague instructional phrase, rarely defined explicitly either by teachers or by texts on teaching reading [18,19].

Even though experts acknowledge that reading with expression is an important part of being fluent, they rarely have attempted to study the issue. Reading researchers usually have investigated fluency by quantifying rate (words per minute) and accuracy (numbers of words correctly identified) and have left the third bedfellow of fluency called *prosody* unattended [15,18,10,19].

A review of the literature in Turkey reveals that very few studies have concerned themselves with fluent reading. Further, no study has dwelled on the relationship between comprehension and prosodic characteristics, one of the most important elements of fluent reading. The present study may thus act as a pioneer for future studies focusing on this topic to fill the gap in Turkey. Such

studies will also guide educators in their endeavors to equip students with the skill of fluent reading and in evaluating these skills.

REFERENCES

1. Rasinski, T.V., 1989. Fluency for Everyone: Incorporating Fluency Instruction in The Classroom. *The Reading Teacher*, 42: 690-693.
2. Rasinski, T.V., N. Padak, V. Linek and E. Sturtevant, 1994. Effects of Fluency Development on Urban Second-Grade Readers. *Journal of Educational Res.*, 87: 158-165.
3. Lipson, M.Y. and L.B. Lang, 1991. Not as Easy as It Seems: Some Unresolved Questions about Fluency. *Theory Into Practice*, 30: 218-227.
4. National Reading Panel, 2001. About the NRP-Charge. Retrieved September 20, 2008, from <http://www.nationalreadingpanel.org/NRPAbout/Charge.htm>.
5. Chard, D.J., S. Vaughn and B. Tyler, 2002. A Synthesis of Research on Effective Interventions for Building Fluency with Elementary Students With Learning Disabilities. *Journal of Learning Disabilities*, 35: 386-406.
6. Kuhn, M.R. and S.A. Stahl, 2000. Fluency: A Review of Developmental and Remedial Practices. Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.
7. Rasinski, T.V. and J.V. Hoffman, 2003. Oral Reading in The School Reading Curriculum. *Reading Res. Quarterly*, 38: 510-522.
8. National Institute of Child Health and Human Development, 2000. Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
9. Hudson, R.F., H. Lane and P. Pullen, 2005. Reading Fluency Assessment and Instruction: What, Why and How? *The Reading Teacher*, 58: 702-714.
10. Rasinski, T.V., 2004. Creating Fluent Readers. *Educational Leadership*, 61: 46-51.
11. LaBerge, D. and S.J. Samuels, 1974. Toward a Theory of Automatic Information Processing in Reading. *Cognitive Psychologist*, 6: 293-323.
12. Samuels, S.J., 1979. The Method of Repeated Readings. *The Reading Teacher*, 32: 403-408.
13. Schreiber, P.A., 1980. On the Acquisition of Reading Fluency. *Journal of Reading Behavior*, 12: 177-186.
14. Schreiber, P.A., 1991. Understanding Prosody's Role in Reading Acquisition. *Theory Into Practice*, 30: 158-164.
15. Dowhower, S.L., 1987. Effects of Repeated Reading on Second-Grade Transitional Readers' Fluency and Comprehension. *Reading Res. Quarterly*, 22: 389-406.
16. Ravid, D. and Y.E. Mashraki, 2007. Prosodic Reading, Comprehension and Morphological Skills in Hebrew-Speaking Fourth Graders. *Journal of Research in Reading*, 30: 140-156.
17. Whalley, K. and J. Hansen, 2006. The Role of Prosodic Sensitivity in Children's Reading Development. *Journal of Research in Reading*, 29: 288-303.
18. Dowhower, S.L., 1991. Speaking of Prosody: Fluency's Unattended Bedfellow. *Theory Into Practice*, 30: 165-175.
19. Zutell, J. and T.V. Rasinski, 1991. Training Teachers to Attend to Their Students' Oral Reading Fluency. *Theory Into Practice*, 30: 211-217.