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The Effectiveness of Listening Previewing on Oral Reading Performance

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THE EFFECTIVENESS OF LISTENING PREVIEWING ON ORAL READING PERFORMANCE

A Thesis

Presented to

the Faculty of the Department of Psychology

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Education

by

LaTisha Ann Smith

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THE EFFECTIVENESS OF LISTENING PREVIEWING ON
ORAL READING PERFORMANCE

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Director of Thesis

Dean, Graduate Studies and Research Date
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To successfully function in today's society, a skill that is arguably necessary is that of reading. Educators are constantly in search of effective reading interventions to use with students. This study examined the effects of listening previewing on the oral reading fluency of third grade students from regular education classrooms. Twelve participants were assigned to one of two groups: Experimental Group or Control Group. Results indicated that the listening previewing procedure was superior to reading practice only when the progress monitoring data was collected on previewed probes. The findings imply that improvements in oral reading fluency due to the listening previewing procedure may not generalize to new materials. Implications for future research are further discussed.
Literature Review

To successfully function in today’s society, a skill that is arguably necessary is that of reading. It is a fundamental skill for academic success, which is a good predictor of success in life. How is reading defined, though? Reading is a complex skill that requires the coordination of numerous interrelated sources of information (Anderson, Hiebert, Scott, & Wilkinson, 1985). More specifically, reading is made up of many subskills that build upon one another, such as first identifying letters and how they sound, then blending sounds into words, and so on (Anderson et al., 1985; Chall, 1983). As a result, decoding and comprehension are the two components that traditionally characterize reading (Shinn, Good, Knutson, Tilly, & Collins, 1992). Decoding is defined as “the ability to pronounce the printed word” (Golinkoff, 1975, p. 633). Comprehension is defined as the understanding of words read (Carnine & Silbert, 1979). Reading fluency is a third component of reading that is often neglected in classroom instruction (National Reading Panel, 2000; Reutzel & Cooter, 1999; Shinn et al., 1992). Fluency has been defined as the ability to read quickly and accurately without consciously attending to individual words and has been found to be a critical component of skilled reading (Burns, Griffin, & Snow, 1999; National Reading Panel, 2000; O’Donnell & Wood, 1999; Reutzel & Cooter, 1999; Shinn et al., 1992). Fluency has not only been neglected but also its relationship to reading has been questioned by educators. This questioning has led to investigations focusing on how fluency relates to reading.
To investigate the relationship and importance of fluency to reading in general, a testing strategy called Curriculum Based Measurement (CBM) of oral reading fluency has been developed. This strategy uses standardized procedures to obtain a measure of oral reading (a combination of accuracy and rate) expressed as Words Read Correctly (WRC) per minute (Hasbrouck & Tindal, 1992; Markell & Deno, 1997). Shinn et al. (1992) found that fluency, as measured by CBM, provided a good index of reading proficiency, including comprehension. They found the indirect relationship between CBM oral reading fluency and comprehension to be high, with oral reading fluency directly related to reading decoding and reading decoding strongly correlated to reading comprehension ($r = .83$). This relationship found by Shinn et al. (1992) is similar to Chall’s (1983) stages of reading development, which also discusses a correlation between fluent reading and comprehension. According to Chall (1983), as fundamental skills (e.g., decoding) are mastered, fluency will become routine leading to reading for learning or comprehension.

Deno, Mirkin, and Chiang (1982) found higher correlations between oral reading fluency tasks and standardized comprehension tests (.78 and .80) than between other comprehension measures and standardized comprehension tests (.67 and .71). To explore the validity of oral reading fluency, Fuchs, Fuchs, and Maxwell (1988) compared reading fluency with commonly used measures of comprehension (oral and written retells, oral and written cloze, question-answering strategies, and the reading subtests of the *Stanford Achievement Test* [SAT], which is a published norm-referenced achievement test). The results indicated that CBM reading fluency strongly correlated with the SAT at .91. This correlation was significantly higher than other comprehension assessment methods
(Fuchs et al., 1988). In their literature review of Curriculum-Based Measurement of reading, Madelaine and Wheldall (1999) argued that oral reading fluency was an accurate indicator of both general reading ability and reading comprehension and reported that it was a means of progress monitoring. Reutzal and Cooter (1999) found that stronger reading fluency positively correlated with better comprehension.

**Need for Reading Interventions**

A recent National Assessment of Educational Progress evaluation found that 37% of a national sample of high school seniors were described as “proficient” at reading with one fourth of the sample falling below the “basic” level of reading (as cited in Daly, Lentz, & Boyer, 1996). Since reading is considered to be an important life skill and fluency is considered to be a critical component of reading, it is crucial to target this skill in students while they are young. Teachers tend to have limited time to give extra assistance to individual students, and they are not always fortunate enough to have extra supports in the classroom such as aides or volunteers. Due to lack of time and funding, many students may not get the extra help they need (Burns et al., 1999). Educators are continuously searching for interventions that work and are easy to implement, preferably with groups of students.

Several interventions have been suggested as strategies to improve oral reading fluency. A few include Repeated Reading, which involves the student rereading a passage until a predetermined level of fluency is achieved (Herman, 1985; Meyerson & Kulesza, 2002; National Reading Panel, 2000; O'Donnell & Wood, 1992; Rasinski, 1990; Rathvon, 1999; Reutzel & Cooter, 1999); Paired or Assisted Reading, which involves having a student listen to a taped passage, read the passage along with the
teacher, and then read the material independently (Gilbert, Williams, & McLaughlin, 1996; O’Donnell & Wood, 1992; Reutzel & Cooter, 1999); and Listening Previewing, which is described in detail below (Daly et al., 1996; Daly & Martens, 1994; Rathvon, 1999; Rose, 1984; Rose & Beattie, 1986; Rose & Sherry, 1984; Skinner et al., 1993; Skinner, Cooper, & Cole, 1997). The focus of the present study will be on the listening previewing intervention.

**Listening Previewing**

Implementation of listening previewing consists of the following procedures. A copy of the reading passage is provided for the student and he/she is directed to follow along with the teacher who reads it aloud. The student then reads the passage aloud. Each student in the group gets a turn to listen and preview the passage silently and then read it aloud independently (Rathvon, 1999). Listening previewing allows the student to hear a fluent model prior to independent reading. Rasinski (1989) discussed how the modeling of fluent reading was a helpful strategy when investigating the instructional components of effective fluency instruction. Daly et al. (1996) also suggested that modeling reading was helpful. Daly et al. expected that modeling the reading prior to the student’s independent reading, as in listening previewing, would be more effective than other strategies that correct the student after he/she makes an error. Modeling is a component present in assisted or paired reading, which is an intervention that has been found to increase reading performance (Gilbert et al., 1996).

Several studies have investigated the effects of listening previewing on oral reading fluency. Rose (1984) investigated the effects of two previewing procedures, silent and listening, on the oral reading rate of 6 learning disabled students ages 9 years 6
months to 13 years 2 months. Silent previewing allows the learner to preview the passage silently prior to reading aloud. Listening previewing, as previously described, allows the learner to listen and follow along silently prior to reading the passage individually. Following the collection of baseline data, Rose alternated the two procedures randomly for approximately 25 consecutive school days. Data consisting of the learner rereading a timed sample from the previous day’s passage were collected for progress monitoring at the beginning of each session. The findings of the study (Rose, 1984) indicated that previewing procedures were related to improvements in oral reading fluency and that the listening previewing procedure was superior to the silent previewing procedure. Rose did not use statistical analysis to determine the results of the study. The data points were plotted and Rose (1984) compared the Words Read Correctly (WRC) per minute to determine the results. A control group was not used to ascertain if the improvements were due to the treatment. One of the future research questions Rose suggested was whether the learner’s new skills would generalize to new reading materials.

Rose and Sherry (1984) extended earlier findings regarding the effects of silent and listening previewing by investigating those effects among 5 learning disabled adolescents ages 14 years, 10 months to 16 years, 2 months. Baseline data were collected and an alternating-treatments design of previewing procedures was employed as in Rose’s (1984) study. Data were collected in the same manner as previously mentioned using a probe from the previous day’s passage that the student reread. The treatment followed the data collection probe and the treatment phase lasted approximately 30 to 35 consecutive school days (Rose & Sherry, 1984). Results supported previous findings
suggesting that previewing procedures were related to improvements in oral reading performance with the listening previewing procedure shown to be more effective than silent previewing. These results were seen in four of the five participants. As in Rose’s (1984) earlier study, Rose and Sherry (1984) did not use statistical analysis or a control group.

Rose and Beattie (1986) conducted a study to investigate a modification to the listening previewing technique. The researchers compared the effects of teacher directed previewing, which had been used in previous studies, to a modification of the technique using prerecorded previewing tapes. Four elementary students with learning disabilities were participants. Each participant received both previewing techniques in an alternating random order following a baseline condition. The treatment condition was conducted for approximately 30 consecutive school days. Both previewing conditions, listening and taped, resulted in higher Words Read Correctly when compared to the baseline condition (no previewing). When comparing the listening previewing to the taped previewing, the data showed that the listening previewing condition resulted in higher Words Read Correctly than the taped previewing. Results confirmed that previewing procedures may lead to improved oral reading performance, with the teacher-directed listening previewing technique resulting in slightly higher degrees of improvement (Rose & Beattie, 1986).

Daly and Martens (1994) compared the effects of three interventions (listening passage preview, subject passage preview, and taped words) on the oral reading performance of four students with learning disabilities whose average age was 10 years 8 months. Listening passage preview was defined, as in previous studies, with the
experimenter reading the passage and the subject following along. The subject passage preview technique required the subjects to read the passage independently aloud prior to being assessed. The taped word intervention had the subject read along with a list of words presented by the audiotape. Following the instructional technique, the subject was directed to read aloud the passage or word list and then read it again for assessment purposes. A multi-element design was used to compare treatment conditions. Each treatment was administered once during the three school day block over a period of 21 days. Therefore, each treatment was administered seven times. Although small positive effects were found for the other two conditions, listening passage preview was found to yield the greatest immediate increases in accuracy and fluency. A control group was not present in this study.

In a study conducted by Skinner et al. (1993), three types of previewing were compared. The 12 participants were students with learning disabilities in reading whose ages ranged from 13 years 9 months to 18 years 9 months. Two types of listening previewing, fast-rate and slow-rate, were used as interventions. The third previewing procedure was silent previewing. The premise for this study was that students might increase their speed of accurate reading by following along with a model who reads at a fast rate (Skinner et al., 1993). The experimenter either read at a fast-rate (77.7% faster than students' average oral reading rate) with the student following along, at a slow-rate (22.5% faster than students’ average oral reading rate) with the student following along, or had the student read silently. Each previewing procedure was presented as in earlier studies with each subject's oral reading being assessed on the same passage that was previewed. Each student received all three treatments in one session. Each treatment
was administered three times with results assessed immediately after each treatment. Skinner et al. reported no statistically significant increases in accurate oral reading rates after any of the previewing conditions, but slow-rate listening previewing did result in increases in accurate oral reading rates for 9 of the students. The experimenters attributed the lack of significant findings possibly to the brief exposure to the treatments (Skinner et al., 1993).

A study conducted by Skinner et al. (1997) isolated listening previewing reading rates to further investigate their effects on accurate oral rereading. The same hypothesis that students' oral reading rate would be more rapid when the experimenter modeled a rapid rate was the basis for this study. Another hypothesis was that the modeled reading should be at a slow-rate to assure the student reads each word. Listening previewing was presented by the experimenter at both rapid (experimenter's natural rate) and slow rates (50 words per minute) and a silent previewing control condition was also conducted. Only two students participated in this study, both who were identified as learning disabled. The experimental phase was conducted over 15 school days, alternating the three treatment conditions, occasionally administering two in one day. Assessments were conducted immediately following the treatment. To determine the effect of each treatment condition, the mean number of WRC for each treatment was computed. For both participants, the slow rate previewing resulted in the highest number of WRC, fast rate previewing was the second largest, and the silent previewing condition had the least number of WRC. This finding was consistent with previous results showing that listening previewing results in greater increases of accurate rereading rates than silent previewing (Rose, 1984; Rose & Sherry, 1984; Daly & Martens, 1994). The findings of
this study also suggested that students' accurate oral rereading might be increased if the experimenter presents the passage at a slow rate. The findings of this study, though, were based on the reading performances of only two participants and no control group. One future research suggestion was to look at the effects of listening previewing on students' generalized oral reading fluency by exposing them to unpreviewed materials.

Whereas the reviewed research studies have found listening previewing to have positive effects on oral reading fluency, with the exception of Skinner et al.'s (1993) finding of no effect, one other researcher has found it to be unsuccessful. Morris's (2000) study compared the effectiveness of two reading interventions, listening previewing and folding-in, on oral reading fluency. Morris (2000) described the folding-in technique as the student reading a passage orally with the researcher noting the errors and "known" words (read easily and appeared to comprehend) and then writing errors on flashcards (not to exceed five) and writing "known" words on the rest, for a total of ten flashcards. The researcher then would drill the student with the flashcards until all errors had been mastered (able to identify a word three consecutive times when presented on flashcard). Nine third-grade students in regular education classes were the participants in this study and were assigned to one of three groups (listening previewing, folding-in, and a control group). The control group read a new passage to the researcher during each session and the researcher marked errors on a copy of the passage. The interventions and control group readings took place for 30 consecutive school days; maintenance data was collected three weeks after the intervention phase had ended. Neither intervention was successful in improving the student's oral reading fluency. Two of the three participants in the listening previewing group showed minimal gains in reading fluency.
(slopes = .23, .12, -.27). Having students practice reading each day (control group) resulted in the same amount or more of an increase in reading fluency than implementing the interventions. An increase in reading fluency was observed in all of the groups during the maintenance data collection. Morris attributed this increase possibly to the novelty of reintroducing the maintenance probes three weeks later. Findings from this study conflict with other studies in that listening previewing did not yield successful results.

Even though some of the researchers talked about positive results for listening previewing, none of those studies included a control group for comparison. In most of the studies, each participant received all treatment conditions in an alternating method. Morris (2000) included a control group in her study and found no difference between the effects of the listening previewing intervention and the control group. The positive results discussed in the literature reviewed did not refer to significant results. Due to the small sample sizes, the results were typically compared visually by utilizing graphs and by directly comparing Words Read Correctly (WRC).

Purpose

Previous studies that investigated listening previewing as a technique intended to increase oral reading fluency found mixed results (Rose, 1984; Rose & Sherry, 1984; Rose & Beattie, 1986; Daly & Martens, 1994; Skinner et al., 1993; Skinner et al., 1997; Morris, 2000). Limitations with some of the previous studies include: the use of small sample sizes (2-12 students) so that statistical significance could not be determined; typically alternating different types of previewing techniques so that students received all interventions; failure to use control groups to compare success of treatment; and
assessing progress on reading materials that the students had already previewed or read. The purpose of the present study was to further evaluate the effects of listening previewing as an intervention for students who have low rates of oral reading fluency. Based upon research suggestions by Rose (1984) and Skinner et al. (1997), the present study investigated the effects of listening previewing on students' generalized oral reading fluency. This was done by exposing participants to new or unpreviewed materials, unlike other researchers who used previewed probes (Rose, 1984; Rose & Sherry, 1984; Daly & Martens, 1994; Skinner et al., 1993; Skinner et al., 1997).

In addition to assessing progress with both previewed and new/unpreviewed probes, the present study implemented the intervention two times a week instead of daily. This suggestion was based on Morris's (2000) study where the intervention was implemented daily. Morris suggested that daily exposure to the intervention was too much because the students were possibly tired of reading the passages every day. Many of the previous studies were implemented for 30 days, but treatments were alternated over the experimental phase -- thus providing only two to three exposures per week of each treatment. Finally, the present study was conducted with a slightly larger sample of students (12 total split equally into an experimental group and control group) and used only listening previewing versus a control group.

Based on the previous research, it was important to investigate the following research questions:

1. Does listening previewing affect the oral reading fluency of elementary students who struggle with reading in regular education?
2. How will using unpreviewed probes to collect data compare to using previewed probes?

3. Will any improvements generalize or be maintained after one month’s time has passed without the intervention?
Method

Participants

Twelve third-grade students in regular education classes participated in this study. The participating public school district was located in an urban area in the Midwest part of the United States. Six female students (one African American and five Caucasian) and six male students (three African American and three Caucasian), ages 8-9, were chosen from seven different classrooms at two different schools. Six participants (twelve total) were selected from each of the two schools (in the same school district) based on recommendations by the reading specialists (teachers who work with students only on reading) in each school. Regular education students were chosen instead of special education students to rule out possible confounding variables involved with learning disabilities (i.e., much more individual instruction). All participants were students in regular education, but towards the end of the study, Student 3E was referred for Special Education services and found eligible as a student with a Learning Disability in the area of reading after the study had ended. This student was not receiving special education services at the time of the study.

The students selected were eligible for and receiving Title I reading services. Title I is a federally funded program allowing local school districts to improve classroom performance with special programs in education (i.e., reading, math, etc.). The local school district involved in this study uses their Title I funds to improve performance in the area of reading. Students are selected for Title I services based on a matrix that is
composed of a student’s classroom performance; teacher, principal, or parent recommendation; and achievement scores. The achievement scores were taken from the Metropolitan Achievement Test- Seventh Edition (MAT-7), a standardized test administered in a group setting across the school district. The reading specialists for Title I services during the current school year took the MAT-7 scores from March 2001 into consideration. The total reading performance for students eligible for Title I services typically falls below the 35th percentile when compared to other students taking the same test. Third-grade students were chosen for this study because reading skills such as decoding and fluency should already be mastered (Chall, 1983; Burns et al., 1999). In addition, the third-grade year is, typically, the time that problems in these basic skill areas may first be noticed. Students who have fallen behind their peers need interventions to assist in improving decoding and fluency skills so that they can move on to reading more difficult material and reading for learning or comprehension.

Following the selection, a consent form detailing the study (see Appendix A) was distributed to the parents/guardians; they were asked to read and sign the form. Twelve forms were distributed; two of the parents/guardians denied consent. Two more students were selected and consent was obtained. Following parent/guardian consent, participants were asked to sign an assent form that explained what they would do during the study and that it was voluntary (see Appendix B). Each student was assigned to one of two groups at each school, resulting in groups of three. Gender and ethnicity were given consideration in assigning the groups. Participants were separated into piles regarding gender and ethnicity and then split equally into the groups. The Experimental Group consisted of two African American males, one Caucasian male, and three Caucasian
females. The Control Group consisted of one African American male, two Caucasian males, one African American female, and two Caucasian females. Approval was obtained for this study from the Western Kentucky University Human Subjects Review Board (see Appendix C).

Materials

Materials used in this study included a stopwatch, cassette recorder, cassettes, and Curriculum-Based Measurement (CBM) probes. CBM is a systematic set of procedures that may be used in place of standardized tests to assess student achievement and make placement and programming decisions (Deno, 1985; Shinn, 1989). Shapiro (1996) described CBM as a sensitive measurement that can be used to determine an intervention’s effectiveness. CBM was used because of some of the stated advantages including generation of reliable and valid data of reading competence (Deno, 1985; Good & Shinn, 1990), frequent measurement leading to more effective monitoring, sensitivity to small changes in progress, and a measure of fluency rather than accuracy alone (Madelaine & Wheldall, 1999). CBM of reading requires the student to read aloud for 1 minute from a grade level passage, often taken from the school curriculum. Typically, the measurement of reading skill is obtained one or two times per week (Good & Shinn, 1990). Graphing the number of Words Read Correctly (WRC) provides immediate information about student progress (Good & Shinn, 1990). WRC may be figured by simply adding the total number of words read correctly (Shapiro, 1996) or by subtracting the number of errors from the total number of words read (Shinn, 1989). Standardized procedures are provided for the administration and scoring of reading CBM (see Appendix D).
Both of the schools where participants were selected follow the same curriculum. To avoid using reading materials to which the students had already been exposed, the reading probes did not come from the school’s curriculum. Reading probes were obtained from two sources: A curriculum-based assessment project used to establish local norms in Clark County School District in Nevada and *Progress monitoring: Assessment passages and instruction manual for fluency assessment-Grade 3* (Read Naturally, 2001), an assessment book provided by Read Naturally that contains grade level normed passages. Fry’s (1977) Readability Graph was used to assess the probes, assuring that they were at an appropriate third-grade reading level. To use the readability graph, three passages were selected randomly from both sources. The average number of syllables and average number of sentences per 100 words were plotted on the graph provided to determine the grade level of the material. The probes assessed were at a 3rd grade level according to Fry’s Readability Graph.

Probes were presented on a blank sheet of paper to eliminate context clues, and contained approximately 250 to 350 words. The grade level probes were used for both the previewing intervention and for the progress monitoring. Two copies of each probe were used: an examiner’s copy with words and word count numbers and a student copy with only the words. Words Read Correctly (WRC) were recorded for the progress monitoring on the examiner’s copy. The progress monitoring took place prior to the previewing intervention.

*Design and Procedure*

An AB design was used for the data collection. The two phases were A, baseline/pretest and B, treatment/control group. Maintenance data, consisting of the three
original baseline probes and three new CBM probes, were collected one month after the second phase had ended. The advantages to using this type of design were that it was simple and provided an easy way to compare a student’s progress from the baseline through the intervention (Alberto & Troutman, 1990). The disadvantage to using this design was that a “functional relationship” cannot be assumed since the procedure cannot be replicated (Alberto & Troutman, 1990, p. 154). Inclusion of the control group was an attempt to control for this disadvantage.

**Baseline/Pretest.** A baseline level of WRC was established for each participant to serve as pretest data. Each participant read aloud three passages that had not been previewed. This step was completed with the students individually; therefore they all read the same three passages. The experimenter recorded the number of WRC per minute and used the median of the three passages as the baseline for each student.

**Intervention.** The listening previewing intervention was introduced to the experimental group. Students previewed a probe by listening to the researcher read aloud while following along with a copy of the probe in front of them. The first student then read aloud the probe that was previewed. This process was repeated for all group members using a different probe for each student to avoid additional previewing for those that read second or third. The control group did not receive the listening previewing intervention. The first student read the first probe aloud and so on until each student had read his or her own probe aloud. This procedure was done to control for the practice effects. The intervention and control conditions were presented two times a week for five weeks.
Posttest. One month after the intervention had ended data were collected to assess the effect of the intervention on the students’ oral reading performance. This data was collected over two days and was completed with each participant individually as in the baseline condition. During the first posttest data collection, each student read aloud the same three probes from the baseline condition and the WRC were recorded. This data was considered to be posttest data for the probes that had been previewed. On the next day, the students read aloud three new probes and the WRC were recorded, which served as posttest data for the unpreviewed probes. In order to make a comparison, the median WRC of each set of probes was used as the posttest data. This data served as maintenance data.

Progress monitoring throughout the intervention phase. Data were collected at the beginning of each session to monitor each student’s progress. In order to see if the intervention generalized to new reading materials, progress was monitored on both previewed probes and unpreviewed probes. The students read the previewed probe from the previous day’s session as the previewed material; then before the next intervention they read an unpreviewed probe to serve as new material. Collection of the two types of probes occurred on an alternating schedule (e.g., Day 2-previewed probe, Day 3-unpreviewed probe, etc.). The researcher recorded WRC per minute on both the previewed and unpreviewed probes. This information provided the data points for graphing each student’s progress. Unpreviewed probes were used to see if the effects of the intervention would generalize to new or unpreviewed material. Each of the students in a group read different probes to assure that additional previewing did not occur.
Curriculum-Based Measurement (CBM), as described previously, was used to monitor the students’ progress in the present study.

Reading Rate. Based on previous research findings that showed slow presentation of the reading passage resulted in greater increases in accurate rereading (Skinner et al., 1993; Skinner et al., 1997), the researcher attempted to slow her normal oral reading rate for the intervention. Following the baseline, the average WRC of each student’s median WRC was calculated. The researcher practiced at a rate approximately 20% faster than the calculated WRC, following Skinner et al. (1993) who used a slow rate that was 22.5% faster than the students’ reading rate. However, this rate was determined to be too slow for the purpose of this study since oral reading fluency was to be modeled. Therefore, the researcher decreased her normal reading rate of approximately 180 WRC to a goal of 120 WRC. To assure that the researcher read at this rate, an observer listened to four taped sessions to collect treatment integrity data. The researcher read 109 to 145 WRC per minute (M = 128).

Interobserver Agreement

To assure that the researcher was consistently and correctly implementing the intervention and recording the WRC per minute, tape recordings of three days of each group's sessions were evaluated by a certified school psychologist (five years of experience) who was familiar with the intervention and proficient in CBM (reliability observer). Tape recorded sessions and copies of the reading probes were provided to the reliability observer. The observer listened to the tapes and marked the WRC for the progress monitoring probes. Interobserver agreement was computed by dividing the number of agreements by the number of agreements plus disagreements and then
multiplying by 100. The mean interobserver agreement was 99.75% (range = 97% to 100%).
Results

The purpose of this study was to evaluate the effects of listening previewing as an intervention for elementary students who struggle with reading and to evaluate if the effects of listening previewing generalized to new reading materials. Figure 1 displays the individual results of the Experimental Group and Figure 2 displays the individual results of the Control Group. For comparison, both previewed and unpreviewed materials are included. The same baseline information was used for both previewed and unpreviewed probes as a basis for comparison to the intervention phase. Nine individual data collections took place on different days plus two days of posttest data collection.

It is important to note that the Experimental Group and the Control Group were very different as regards their reading skills as measured by WRC. The mean baseline WRC for the Experimental Group was 68.6, and the mean baseline WRC for the Control Group was 95.6. A t-test resulted in a t of -3.06, which is considered to be a significant difference (<.05) between the two groups. The Control Group included the stronger readers.

Figure 1 shows that the Experimental Group students’ reading performances were generally higher with the previewed probes, although student 3E and student 6E had overlapping data (i.e., previewed probes were lower than unpreviewed probes). Figure 2 shows that the Control Group students’ reading performances were higher with the previewed probes for students 2C, 5C, and 6C, and students 1C, 3C, and 4C had overlapping data (i.e., previewed probes were lower than unpreviewed probes). Table 1
Student 1E

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Student 2E

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<th>5</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previewed</td>
<td>84</td>
<td>123</td>
<td>120</td>
<td>115</td>
<td>119</td>
<td>93</td>
</tr>
<tr>
<td>Unpreviewed</td>
<td>84</td>
<td>68</td>
<td>107</td>
<td>92</td>
<td>88</td>
<td>94</td>
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Student 3E

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previewed</td>
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<td>48</td>
<td>74</td>
<td>65</td>
<td>56</td>
<td>63</td>
</tr>
<tr>
<td>Unpreviewed</td>
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<td>52</td>
<td>63</td>
<td>50</td>
<td>49</td>
<td>63</td>
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</tbody>
</table>

(continued)
Figure 1. Words read correctly across sessions for the experimental group.
Student 1C

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previewed</td>
<td>84</td>
<td>94</td>
<td>98</td>
<td>78</td>
<td>68</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Unpreviewed</td>
<td>84</td>
<td>83</td>
<td>70</td>
<td>88</td>
<td>92</td>
<td>96</td>
<td>85</td>
</tr>
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</table>

Student 2C

<table>
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<tr>
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<th>Baseline</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previewed</td>
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<td>137</td>
<td>140</td>
<td>143</td>
<td>127</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>Unpreviewed</td>
<td>97</td>
<td>79</td>
<td>120</td>
<td>82</td>
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<td>104</td>
<td>98</td>
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</table>

Student 3C

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previewed</td>
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<td>131</td>
<td>126</td>
<td>140</td>
<td>130</td>
<td>137</td>
<td></td>
</tr>
<tr>
<td>Unpreviewed</td>
<td>111</td>
<td>113</td>
<td>133</td>
<td>127</td>
<td>137</td>
<td>98</td>
<td>102</td>
</tr>
</tbody>
</table>

(continued)
Figure 2. Words read correctly across sessions for the control group.
displays the individual slopes for both groups. Each student in the Experimental Group had a positive slope for both the previewed and unpreviewed probes, and all of the slopes were higher for the previewed probes. Following the guidelines of Shinn (1989), trendlines were computed in Microsoft Excel in order to get the slopes of WRC from the baseline through the intervention (posttest data not included). Table 1 displays the slopes for each individual student on both previewed and unpreviewed probes. The slopes for the group means were computed by calculating the mean number of WRC for each session across the students in each group and then using the means as the data points.

In examining the slopes in the Experimental Group (Table 1), student 1E and student 5E showed the greatest amount of performance increase in the previewed probes, while the rest of the group made smaller increases. Improvement over the intervention phase as regards the unpreviewed probes was present, but noticeably less than with the previewed probes. The individual slopes for the Control Group (Table 1) showed small increases in performance for all of the students with the exception of student 1C and student 4C whose performance actually decreased with the previewed probes. Student 4C’s performance also decreased with the unpreviewed probes.

The mean slopes for both the Experimental Group and the Control Group were calculated using both the previewed and unpreviewed probes. The group means are listed in Table 1, and the corresponding trendlines are displayed in Figure 3. By using the means for each group, the research questions pertaining to the present study may be addressed. The first question asked whether listening previewing would affect the oral reading fluency of elementary students who struggle with reading in regular education. The listening previewing intervention had the greatest effect on the Experimental Group
Table 1

Slopes of Words Read Correctly

<table>
<thead>
<tr>
<th>Participants</th>
<th>Previewed</th>
<th>Unpreviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 1E</td>
<td>8.20</td>
<td>4.86</td>
</tr>
<tr>
<td>Student 2E</td>
<td>6.20</td>
<td>2.71</td>
</tr>
<tr>
<td>Student 3E</td>
<td>1.90</td>
<td>0.51</td>
</tr>
<tr>
<td>Student 4E</td>
<td>2.30</td>
<td>0.14</td>
</tr>
<tr>
<td>Student 5E</td>
<td>15.10</td>
<td>1.60</td>
</tr>
<tr>
<td>Student 6E</td>
<td>4.90</td>
<td>2.83</td>
</tr>
<tr>
<td>Means</td>
<td>6.30</td>
<td>2.09</td>
</tr>
<tr>
<td><strong>Control Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 1C</td>
<td>-4.80</td>
<td>3.00</td>
</tr>
<tr>
<td>Student 2C</td>
<td>6.60</td>
<td>3.26</td>
</tr>
<tr>
<td>Student 3C</td>
<td>4.70</td>
<td>0.03</td>
</tr>
<tr>
<td>Student 4C</td>
<td>-3.10</td>
<td>-0.03</td>
</tr>
<tr>
<td>Student 5C</td>
<td>5.50</td>
<td>3.51</td>
</tr>
<tr>
<td>Student 6C</td>
<td>5.30</td>
<td>1.69</td>
</tr>
<tr>
<td>Means</td>
<td>2.30</td>
<td>2.00</td>
</tr>
</tbody>
</table>
Figure 3. Trendlines from the baseline condition through the intervention showing improvement across both previewed and unpreviewed probes for the experimental group and control group.
when previewed probes were used for the progress monitoring. Otherwise, the intervention was no more effective than reading practice (received by the Control Group) when unpreviewed probes were read. This finding indicates that the effectiveness of the intervention was dependent on what types of probes were used for progress monitoring.

The next research question explored the use of unpreviewed probes to collect data compared to using previewed probes. Unpreviewed probes were used to determine if the participants would generalize improvements to new materials, since most of the previous research had used previewed materials to validate the intervention. The Experimental Group showed greater increases of WRC when previewed probes (mean slope = 6.30) were used for the data collection versus the unpreviewed probes (mean slope = 2.09). Reading performance for the Control Group did not vary greatly when previewed probes (mean slope = 2.30) were used versus unpreviewed probes (mean slope = 2.00). Therefore, when looking at generalization of reading skills to new materials the listening previewing intervention did not appear to be any more effective than reading practice (received by the Control Group).

The last research question asked if any improvements would generalize or be maintained after one month’s time has passed without the intervention. To make a decision about maintenance of skills, the mean number of WRC at the end of the intervention was compared to the mean number of WRC during the posttest data collection for each group on both sets of probes. At the end of the intervention, the mean number of WRC for the Experimental Group was 80.7 on unpreviewed probes and 94.3 on the previewed probes. A decline in WRC was observed for the posttest data, which consisted of 72.5 WRC for the unpreviewed probes and 82.7 for the previewed probes.
The Control Group’s mean number of WRC at the end of the intervention was 102.5 for the unpreviewed probes and 105.8 for the previewed probes. Posttest data showed a decline in the WRC for the unpreviewed probes with a mean of 94.8 and a slight decrease in the previewed probes with a mean WRC of 104.7. The posttest data for both the Experimental Group and the Control Group did not show increases in WRC after a one month delay -- therefore showing the lack of skill maintenance.
Discussion

The purpose of the present study was to evaluate the effects of listening previewing as an intervention for students who have low rates of oral reading fluency and to evaluate how listening previewing generalizes to other reading materials. The results of the present study show that listening previewing can lead to improved oral reading fluency when data are collected on previewed materials. The reading performance of the Experimental Group increased when previewed probes were used for the progress monitoring. This finding is consistent with previous research findings (Rose, 1984; Rose & Sherry, 1984; Daly & Martens, 1994; Skinner et al., 1997). However, when using unpreviewed materials to collect data, the listening previewing intervention was not any more effective than reading practice. The increase in the reading performance of the Experimental Group when unpreviewed probes were used was consistent with that of the Control Group under both sets of probes. Furthermore, improvements in oral reading fluency did not maintain after one month had passed without the intervention. The posttest data for both the Experimental Group and the Control Group were lower or unchanged from the last data collection at the end of the intervention. Overall, reading practice was just as effective as the listening previewing procedure when looking at generalization of skills to new reading materials.

Some differences were present between the current study and previous studies that may have affected the research findings. First, the intervention and progress
monitoring was conducted in small groups instead of individually since this method is most likely how the intervention would be performed in a practical school setting. This approach did not seem to have an adverse effect on the students' performance, especially since the results showed improved performance when measured with previewed probes, as used in previous studies. Third, this study was conducted with regular education students rather than special education students. Students from regular education were chosen because those students who are in special education classes are typically exposed to more intensive and individualized programs. The purpose of the study was to investigate the effects of listening previewing and eliminating the variables (i.e., specialized instruction) involved with special education was preferred. Finally, progress monitoring was completed by alternating the use of previewed and unpreviewed probes. By alternating the type of probe, it was possible to observe that there was little difference between the effects of listening previewing and reading practice when unpreviewed probes were used. This finding would indicate that listening previewing is not as effective when reading skills are to be generalized to new reading materials.

Educators may want to select an intervention that is just as or more effective and not as demanding of their time.

Limitations

Several limitations of the present study should be noted. First, although larger than previous studies examining listening previewing, the sample size is still considered to be small. Generalizability of the results may be limited due to the small sample size. Second, the subjects' reading level was not known prior to the assignment of subjects to groups. In general, the Control Group participants were reading at rates higher than most
of the Experimental Group. This difference in initial reading rate may have influenced the results. Since the participants in the Control Group were already reading more WRC than the Experimental Group during the baseline, they may not have had as much room for improvement. Third, the intervention may not have been long enough to ascertain if the intervention would continue to be effective. The intervention lasted for 5 weeks, but the groups met for only two days. Although previous studies used a similar duration, they were typically consecutive school days resulting in more data collections. In addition, the data collections of the present study alternated between previewed and unpreviewed probes. Therefore, the trendlines were based on only 4 or 5 data points. Finally, the researcher provided the “treatments” as well as collected the data. The researcher was experienced with the intervention and Curriculum-Based Measurement, but experimenter bias could have been present. An attempt to control for this bias was made by using a reliability observer to evaluate taped sessions and independently score the probes.

**Future Research**

Several areas would appear to need further investigation. First, similar studies need to be conducted over a longer period of time (i.e., a full semester). Second, using knowledge of participants’ reading levels prior to group assignment would lead to more equivalent groups. Third, further research may utilize trained teachers, aides, or proctors to conduct the intervention and progress monitoring, thereby eliminating the possibility of experimenter bias. Finally, further research investigating the type of reader this intervention is successful with may provide important information. Even though regular education students participated, they may have been very different readers.
Standardized reading tests are able to identify areas of strengths and weaknesses. Such tests could be given to see if students who respond to this intervention are similar.

The present study provides the field of education a more critical look at the listening previewing intervention. With the need for interventions that are effective and efficient, educators should be selective in the interventions they choose. The design of the present study was intended to be a more practical nature (i.e., use of a fluent reading rate, using small groups of students) since educators want interventions that are practical and easy to implement. The finding that listening previewing is no more effective than reading practice when looking at generalization of skills to new materials indicates that this choice may not be the most efficient or effective one for educators. With so many choices, educators may want to select an intervention that achieves the same or better results and one that is less demanding of their time.
References


Appendix A

Parent/Guardian Consent Form
Parental Consent Form

Dear Parent/Guardian:

Your child is invited to take part in a project with me, LaTisha Smith. It will look at how well a reading intervention works on students’ oral reading. I am a School Psychologist Intern with Belleville Area Special Services Cooperative (BASSC) and a Western Kentucky University graduate student. Your child’s school has said it is okay for this study to take place in their school. This study may help teachers to assist students with their reading. Your child’s teacher will help plan the time of the sessions. Your child will not miss any crucial learning activities.

The reading intervention will be simple and brief. It will take place in the students’ classroom or a quiet area (e.g., library or classroom). Each student will be put in to one of two groups. Students in one group will listen to a story being read before reading it aloud. Students in the other group will get extra reading practice each session. I will meet with the students for 10 sessions over a five weeks period. There will be a single follow-up session one-month after the first five weeks.

Your child’s participation in this project is voluntary. If you or your child decide not to participate, there will be no penalty. Your child may stop taking part in this study at any time. The information that I collect will be kept private. Results will be reported on a group basis to the teacher, parents, and school district for the benefit of the child. Code numbers will be used instead of students’ names. Only I will know these numbers. Their names will be kept private when the results are reported. The name of the district will also be kept private when the results are reported.
The Western Kentucky University Committee for the Protection of Human Research Participants has approved this study. Contact Dr. Phillip E. Myers, Human Protections Administrator, at (270) 745-4652 with questions about the protection of your child. For questions about this study contact LaTisha Smith, person working with the students, at (618) 355-4727, or Dr. Antony Norman, WKU Supervisor, at (270) 745-6324. Give either one of us a call with any questions.

I hope that you will let your child to take part in this study. I promise to make it a pleasant learning experience for your child. I will plan session times with your child's teacher. Please fill in the information on the form below. Please have your child return the attached form to their teacher.

Thank you for your help.

Sincerely,

LaTisha Smith

School Psychologist Intern
Western Kentucky University

Parental Consent Form

(Please sign and return this portion to your child’s teacher)

Child’s Name: ___________________________ Date of Birth: ___________

Teacher’s Name: __________________________________________________________

____ Yes. I have read the information provided about this study. I give my consent for my child to participate in the project conducted by LaTisha Smith of BASSC and Western Kentucky University. I understand that I may withdraw my child from this study at any time without penalty.

____ No. I do not give my consent for my child to participate in this study.

Parent/Guardian signature: ___________________________ Date: ______________
Appendix B

Participant Assent Form
Western Kentucky University

Participant Assent Form

I, ________________________________, understand that my parents have given permission or said it's okay for me to take part in a project that may help me learn to read better. Mrs. LaTisha Smith will be working with the other students and me. I am taking part because I want to. I have been told that I can stop at any time I want to and nothing will happen to me if I want to stop.

Signature ___________________________ Date ___________________
Appendix C

Human Subjects Review Board Approval Letter
LaTisha Smith
1710 Shadow Ridge Ct., Apt. C
Belleville, IL 62221

Dear LaTisha:

1. Your research project, “The effectiveness of listening previewing on oral reading performance,” was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

2. In addition, the IRB found that: (1) informed consent will be sought and documented from each prospective subject. (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

   a. Your research therefore meets the criteria of Full Board Review and is approved.

3. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future to determine the status of the project.

Kindest regards.

Sincerely,

Phillip E. Myers, Ph.D.
Director, Office of Sponsored Programs and
Human Subjects Coordinator

c: Human Subjects File02-059R1
Dr. Antony Norman, Department of Psychology
Appendix D

CBM Procedures for Scoring and Assessing Oral Reading Fluency
CBM Procedures for Assessing and Scoring Oral Reading Fluency

Say to the student: "When I say 'start,' begin reading aloud at the top of this page. Read across the page [demonstrate by pointing]. Try to read each word. If you come to a word you don't know, I'll tell it to you. Be sure to do you best reading. Are there any questions?"

Say: "Start." [begin timing with your stopwatch when the student says the first word.]

Follow along on your copy of the story, marking the words that are read incorrectly. If a student stops or struggles with a word for 3 seconds, tell the student the word and mark it incorrect with a slash (/) through it. Place a vertical line after the last word read at the end of 1 minute and thank the student. Count the number of words read correctly and incorrectly.

Scoring Guidelines

1. **Words read correctly.** Words read correctly are those words that are pronounced correctly, given the reading context.
   a. The word "read" must be pronounced "reed" when presented in the context of "He will read the book," not as "red."
   b. Repetitions are not counted as incorrect.
   c. Self-corrections within 3 seconds are counted as correctly read words.

2. **Words read incorrectly.** The following types of errors are counted: (a) mispronunciations, (b) substitutions, and (c) omissions. Further, words not read within 3 seconds are counted as errors.
   a. **Mispronunciations** are words that are misread: dog for dig.
   b. **Substitutions** are words that are substituted for the stimulus word; this is often inferred by a one-to-one correspondence between word orders: dog for cat.
   c. **Omissions** are words skipped or not read; if a student skips an entire line, each word is counted as an error.

3. **3-Second rule.** If a student is struggling to pronounce a word or hesitates for 3 seconds, the student is told the word, and it is counted as an error.

Source: Shinn (1989)