

The Effects of Repeated Readings on Reading Abilities of English Language Learners with Specific Learning Disabilities

Katrina Landa and Patricia Barbetta
Florida International University, USA

Abstract: This study evaluates the effects of repeated readings on the reading fluency and comprehension of 4 third through fifth grade English Language Learners (ELLs) with Specific Learning Disabilities (SLD). The results indicate gains in fluency, a decrease in errors, and an increase in correct answers to literal comprehension questions.

Students who read well are able to easily access information both in school and beyond school (Rasinski, 2000). Students who do not read well find school challenging and are at risk of facing negative consequences both in and outside of school. English language learners (ELLs) and students with specific learning disabilities (SLD) are both at risk of not reading well (Bernhard et al., 2006; Osborn et al., 2007). ELLs are students who are less fluent in English than in their first language. Students with SLD have a disorder in one or more of the basic psychological processes involved in understanding or in using language, which may lead to difficulties in listening, processing, speaking, writing, spelling, or doing mathematical calculations (U.S. Department of Education (DOE), 2003).

At the intersection of these two groups are students who are ELLs with SLD. ELLs with SLD often struggle to keep up with their native English speaking peers in the area of reading in English (Denton, Anthony, Parker, & Hasbrouck, 2004). Their limited reading fluency and comprehension in English is a problem in other subjects which use reading as a means to access information (Rasinski, 2000). In addition to challenges in reading, these students often face multiple issues related to language, culture, disabilities, and mastering content areas (Tam, Heward, & Heng, 2006).

Approximately 56% of ELLs with disabilities are diagnosed with SLD (U.S. DOE, 2003). ELLs with SLD often exhibit characteristics similar to native English speakers with SLD. These students frequently read below grade level in English, have difficulties with comprehension, and misbehave or withdraw as a result of reading difficulties (McCardle, Mele-McCarthy, & Leos, 2005). Although there are studies examining ELLs and students with SLD, little is known about the process of English reading acquisition in students who are ELLs with SLD (Tam et al., 2006). The question remains as to what interventions can improve reading fluency and comprehension so that ELLs with SLD can succeed in the classroom and beyond.

Literature Review

One promising approach is repeated readings (Chard, Vaughn, & Taylor, 2002; Nelson, Alber, & Gordy, 2004; Therrien & Kubina, 2006; Weinstein & Cooke, 1992). Repeated readings is an intervention that targets reading fluency by having the reader repeatedly read a passage of no more than 200 words (Samuels, 1979; Stahl & Heubach, 2005; Therrien & Kubina, 2006). The assumption is that once a participant is fluent in reading, more attention can be focused on comprehension (Samuels, 1979). Repeated readings has been successful with elementary and secondary students (e.g., Begeny, Daly, & Valleley, 2006; Freeland, Skinner, Jackson, McDaniel, & Smith, 2000), students reading below grade level (e.g., Stoddard, Valcante,

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Sindelar, O’Shea, & Algozzine, 1993; Tam et al., 2006), students at or above grade level (Bryant et al., 2000), and students with visual impairments (e.g., Pattillo, Heller, & Smith, 2004).

Limited research exists pertaining to the use of repeated readings with ELLs with SLD. Only two studies were found that examined the effects of repeated readings on ELLs. One of them included ELL participants identified as “at risk,” but not as SLD; participants made significant gains in oral reading fluency and passage comprehension following a repeated reading intervention (Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003). The second study included five ELLs; however, only two were ELLs with SLD; participants improved their reading fluency and comprehension following a repeated readings intervention (Tam et al., 2006). That study was preliminary, with only five participants; the needs of ELLs vary from learner to learner.

Purpose

More research is needed to examine the effects of repeated readings on ELLs with SLD, as there are increasing numbers of ELLs with SLD experiencing reading challenges in U.S. schools (U.S. DOE, 2003). Although ELLs with SLD are prevalent in many large urban school districts, there is an absence of research related to strategies for improving their reading fluency and comprehension (Tam et al., 2006). The population of ELLs with SLD has been projected to grow, particularly in states with high percentages of annual immigration (Case & Taylor, 2005).

Research has demonstrated positive outcomes when repeated readings is employed with other types of learners (Bryant et al., 2000; Freeland et al., 2000; Pattillo et al., 2004; Stoddard et al., 1993). However, the research on this method and ELLs with SLD is limited (i.e., Tam et al., 2006). Subsequently, this study fills a gap in the research base by investigating the effects of repeated readings on a new population: ELLs with SLD.

Research Questions

This study examined the effects of a repeated readings intervention on the number of words read per minute, number of errors made per minute, and answers to comprehension questions in ELLs with SLD who are struggling with reading in English in an urban elementary school. Additionally, this study examined maintenance and generalization of potential gains in reading skills. With regard to these ELLs with SLD, who are struggling readers in an urban elementary school, the research questions were as follows: (a) Will repeated readings result in a change in reading fluency as measured by the number of correct words read aloud per minute? (b) Will repeated readings result in a change in the number of reading errors read aloud per minute? (c) Will repeated readings result in a change in the number of literal comprehension questions answered aloud correctly? (d) Will repeated readings result in generalization of the number of correct words read aloud per minute, errors and types of errors read aloud per minute, and literal comprehension questions answered aloud correctly with untaught similar passages? (e) Will repeated readings result in a maintenance of the number of correct words read aloud per minute, errors and types of errors read aloud per minute, and literal comprehension questions answered aloud correctly 2, 4, and 6 weeks after the intervention?

Experimental Design

A single subject design called multiple probe baseline design across subjects was used in this study. In this design, once steady state responding (a pattern of responding that exhibits relatively little variation) is reached under baseline probes, the intervention is applied to one participant while the other participants remain in baseline (Barger-Anderson, Domaracki, Kearney-Vakulick, & Kubina, 2004; Cooper et al., 2007; Horner & Baer, 1978). When steady state is reached in intervention for the first participant, the intervention is applied to next

participant and so on. In a multiple probe baseline design, periodic measures are taken until a few days prior to implementation of the intervention, at which time continuous measures are taken.

Procedure

All sessions were conducted one on one with the participants in a quiet classroom. The materials selected were in the participants' instructional reading level, or the level at which the participant could read with assistance. The sessions were digitally recorded. Sessions were categorized as Multiple Probe Baseline Condition, Repeated Readings Intervention Condition, Generalization Probes, or Maintenance Probes. The differences in procedures during each of these four conditions are explained below.

Multiple Probe Baseline Condition

The researcher used flashcards to determine whether the participant knew the meaning of three to five challenging words that would appear in the passage for that day. Then, the participant read the passage of approximately 100 words (range 100-105 words) aloud. During this reading, a whole word error correction strategy was employed (Barbetta, Heward & Bradley, 1993). When the participant made an error, the researcher immediately read the word correctly aloud. Then, the participant repeated the word aloud. After this, the participant read aloud the sentence containing that word again and the words that were initially stated incorrectly were repeated aloud again by the participant in isolation. Finally, the participant read the passage aloud from the beginning to assess the number of correct words and errors read per minute. Five literal comprehension questions were asked (Tam et al., 2006). The participant had 5 seconds to respond; correct answers were followed by a "yes" or "correct." Incorrect answers were followed by a "no" and the correct answer.

Repeated Readings Intervention Condition

The repeated readings intervention condition began with vocabulary instruction and a reading of the passage as described above. Afterward, the participant read the passage two more times (for a total of three readings). These two additional readings did not contain the error correction procedures described above. The three readings were followed by the fluency and literal comprehension question assessments.

Generalization Probes

Immediately following approximately 25% of the sessions, a new passage of approximately 100 words at the same level; 80% of the same words previously used were taken out. The participant read the passage once aloud. This reading did not contain the error correction procedures. Fluency and literal comprehension question assessments followed this reading.

Maintenance Probes

Two, 4, and 6 weeks after the last repeated readings intervention session, the participant read aloud a previously read passage once. This reading did not contain the error correction procedures. Fluency and literal comprehension question assessments followed this reading.

Treatment Fidelity

A treatment fidelity measure was gathered daily by the researcher. Monitoring treatment fidelity allowed for a record of consistency, served as a routine review of procedures, and determined problems in implementation. A checklist was used to record the daily occurrence and nonoccurrence of the planned procedures. Checklists were also completed for 25% of the sessions by independent raters. Checklists completed by the raters and by the researcher were consistent.

Data Collection

Data were collected on five dependent variables. First, to determine reading fluency, the number of words read aloud correctly per minute (without prompting within 3 seconds) were counted and recorded. To assess the second variable, the total number of errors read aloud during a one-minute reading was counted and recorded (Tam et al., 2006). For assessing the third variable, five literal comprehension questions were asked aloud; the participant had 5 seconds to answer them aloud. For determining the fourth variable, participants were assessed on generalization of skills to untaught passages similar to those being used in experimental sessions. The same dependent variables were measured to determine generalization of gains. For assessing the fifth variable, maintenance of performance after 2, 4, and 6 weeks after the study was concluded. The same dependent variables were measured to determine maintenance. In addition, an interobserver agreement measure was collected.

Two independent raters listened to the recorded sessions and counted the number of correct words read per minute and the number of errors read per minute. This rater also listened to the responses to the literal comprehension questions and scored them as correct or incorrect in accordance with a key. The raters were graduate students enrolled in an elementary education program at Florida International University. Throughout the study, approximately 25% of randomly selected audio recordings were scored by the independent raters. IOA data was taken from the baseline intervention, generalization, and maintenance conditions. Agreements and disagreements between the researcher and the independent raters were counted using a word-by-word examination of the data sheets. IOA was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100.

Data Analysis

In a multiple probe baseline design, data analysis is accomplished through the visual inspection of graphed data in which performance during the intervention is compared to baseline. Predictions based on one participant's behavior are verified by the performance of the other participants, and replication of effect is dependent on the performance of other participants. Verification is evident if the data path changes in a predictable manner through a condition change, as from baseline to intervention for each participant. Replication of this prediction and verification may occur when the data paths of the other participants follow patterns similar to the first participant. A functional relation is identified when baseline behaviors are stable and change only when the intervention is applied. Experimental control is demonstrated by replicating the effects with another participant (Cooper et al., 2007).

Findings to Existing Theory

Repeated readings grew out of the Automaticity Theory (LaBerge & Samuels, 1974; Samuels & Flor, 1997) which states that a fluent reader can decode text without focusing on the process of reading, leaving attention free to dedicate to comprehension (Samuels, 1979). Beginning readers need to focus on letters and sounds, but as they become more fluent, they can focus on phrases, sentences, and meaning. The practice provided in repeated readings makes the decoding necessary for reading automatic, leading to better comprehension (Samuels, 1979).

Data indicated that all four participants experienced reading gains in the intervention phase. The gains were particularly high in fluency (see Figure 1). During baseline, the mean number of words per minute was 39.46 wpm (range 6-76). When repeated readings was introduced, the mean number of words per minute increased to a mean of 75.7 (range 38-100). Overall, the mean number of words per minute was highest during the repeated readings intervention, with a mean increase of 36.11 wpm more than baseline. During baseline, the mean

number of errors per minute was 9.16 (range 4-18). When repeated readings was introduced, the mean number of errors per minute decreased to 5.57 (range 2-11). Overall, the mean number of errors per minute was lowest during the repeated readings intervention, with a mean decrease of 3.59 errors per minute than baseline (See Figure 2). During baseline, the mean number of correct answers to literal comprehension questions was 2.88 (range 1-5). When repeated readings was introduced, the mean number of correct answers to literal comprehension questions increased to 3.94 (range 2-5). Overall, the mean number of correct answers to literal comprehension questions was highest during the repeated readings intervention, with a mean increase of 1.21 more correct answers over baseline (see Figure 3). Generalization probes indicated that the dependent variables did not return to baseline levels in untaught passages. Maintenance data was varied.

The most dramatic gains were made in reading fluency, which indicated that repeated readings were valuable to the participants. Tam et al. (2006) also found an increase in oral reading fluency following a repeated readings intervention. During the second condition, 4 of 5 participants (2 participants were identified as ELLs with SLD) reached the predetermined fluency criterion of 100 correct words per minute. The mean number of comprehension questions answered correctly per session in the Tam et al. (2006) study was notably higher during both intervention conditions than during baseline.

Implications and Recommendations

Although outcomes have varied for individual participants (See Figure 1), data demonstrate that repeated readings have had a positive impact on participant reading skills as measured by the dependent variables. The results suggest that for ELLs with SLD, repeated readings increased reading fluency, decreased the number of errors, and increased the number of correct literal comprehension questions related to the reading.

The results of this study have implications for classroom practice. Teachers of ELLs with SLD should consider repeated readings as a strategy to improve reading fluency and comprehension. Teachers may implement this method one on one, or they may train paraprofessionals or competent students to do it. Teachers may also encourage students to repeatedly read a passage before attempting reading assessments. Additionally, teachers may assign shorter passages to ELLs with SLD to allow for repeated readings during class time.

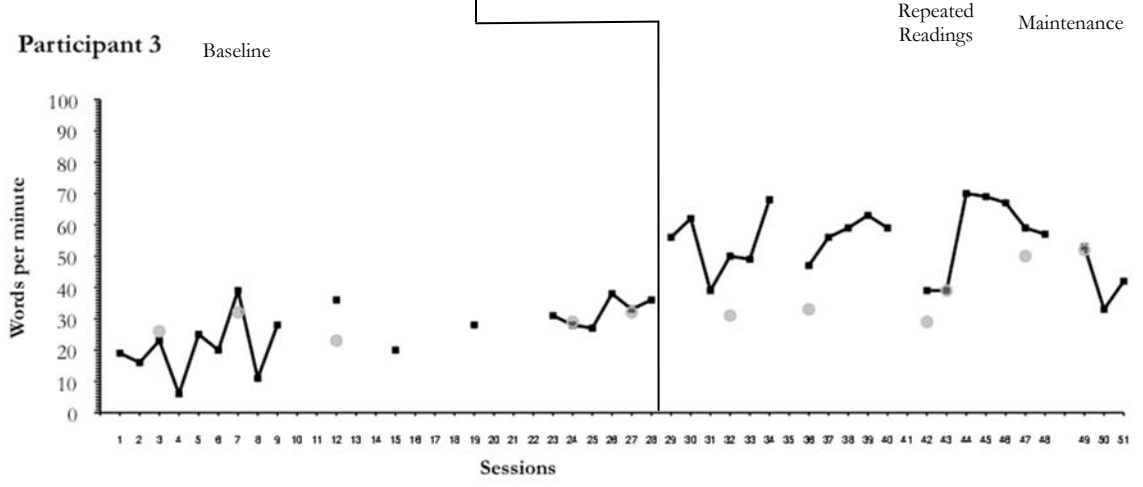
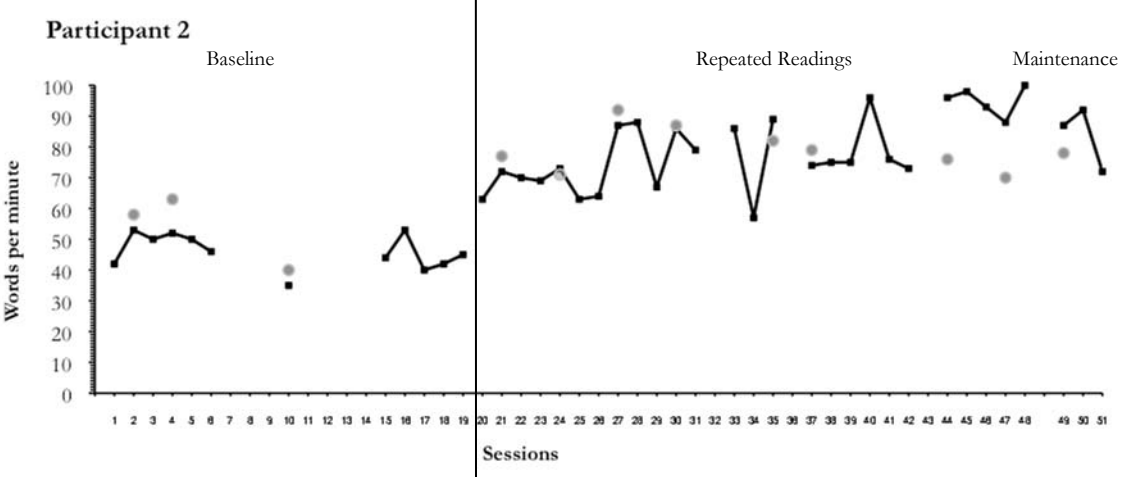
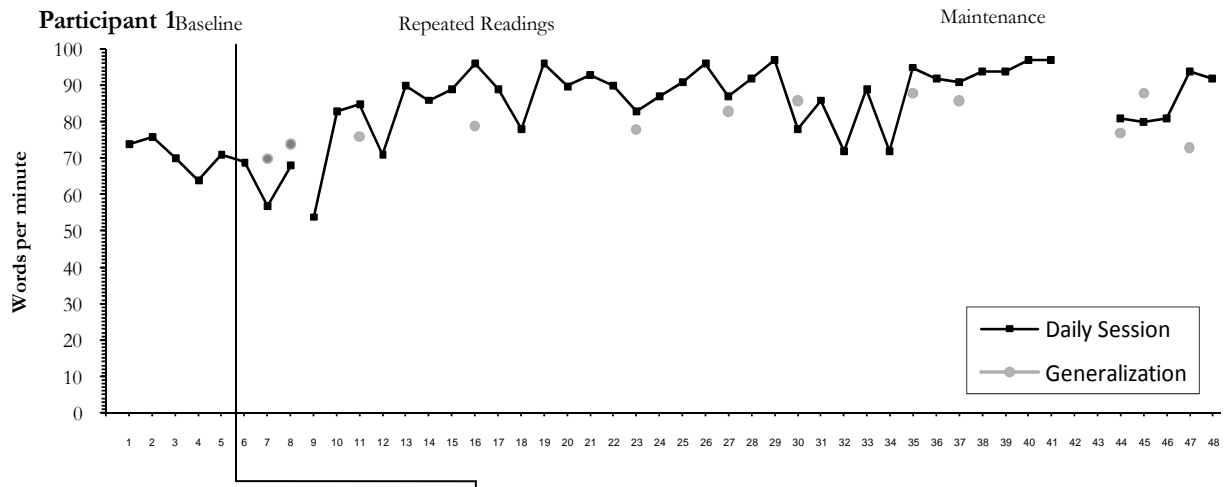
This study examined the use of repeated readings and students who were ELLs with SLD; however, there is a need for additional research. No known previous study has specifically targeted ELLs with SLD using the methods in this study. The sample size is small by the nature of the design and therefore limits the generalization of its findings. Future studies should target students who are ELLs with SLD. Additional research may focus on ELLs with SLD from varying backgrounds. Although this study targeted students reading at least one year below grade level, future studies could examine ELLs with SLD at various stages of reading acquisition and various stages of their English language acquisition. Additionally, more research is needed in the area of repeated readings and the number of readings that is optimal for ELLs with SLD.

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Reading Fluency



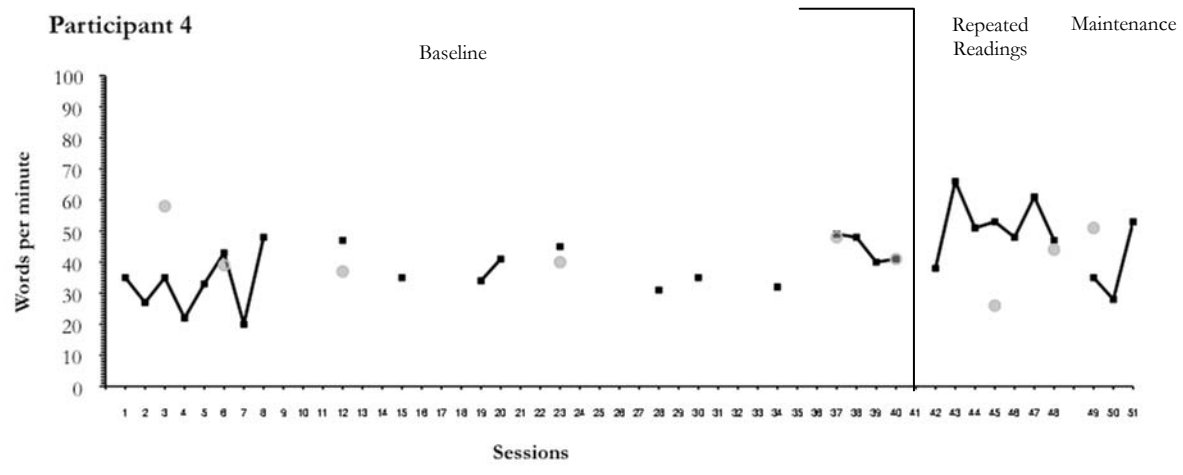
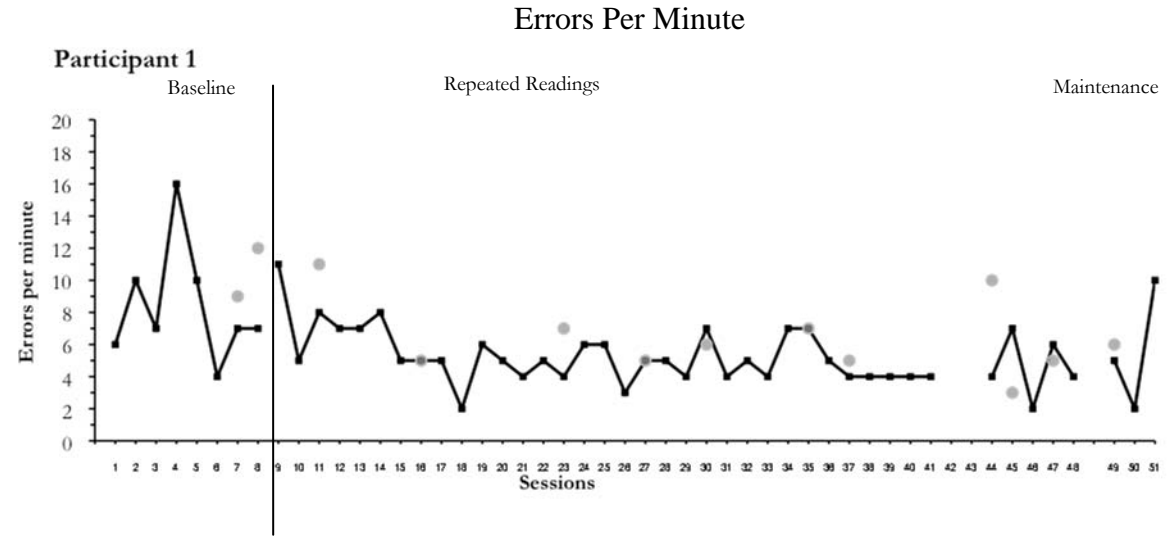


Figure 1. Reading fluency as measured by the number of words read correctly per minute by during a 1-minute fluency assessment at the end of each session.



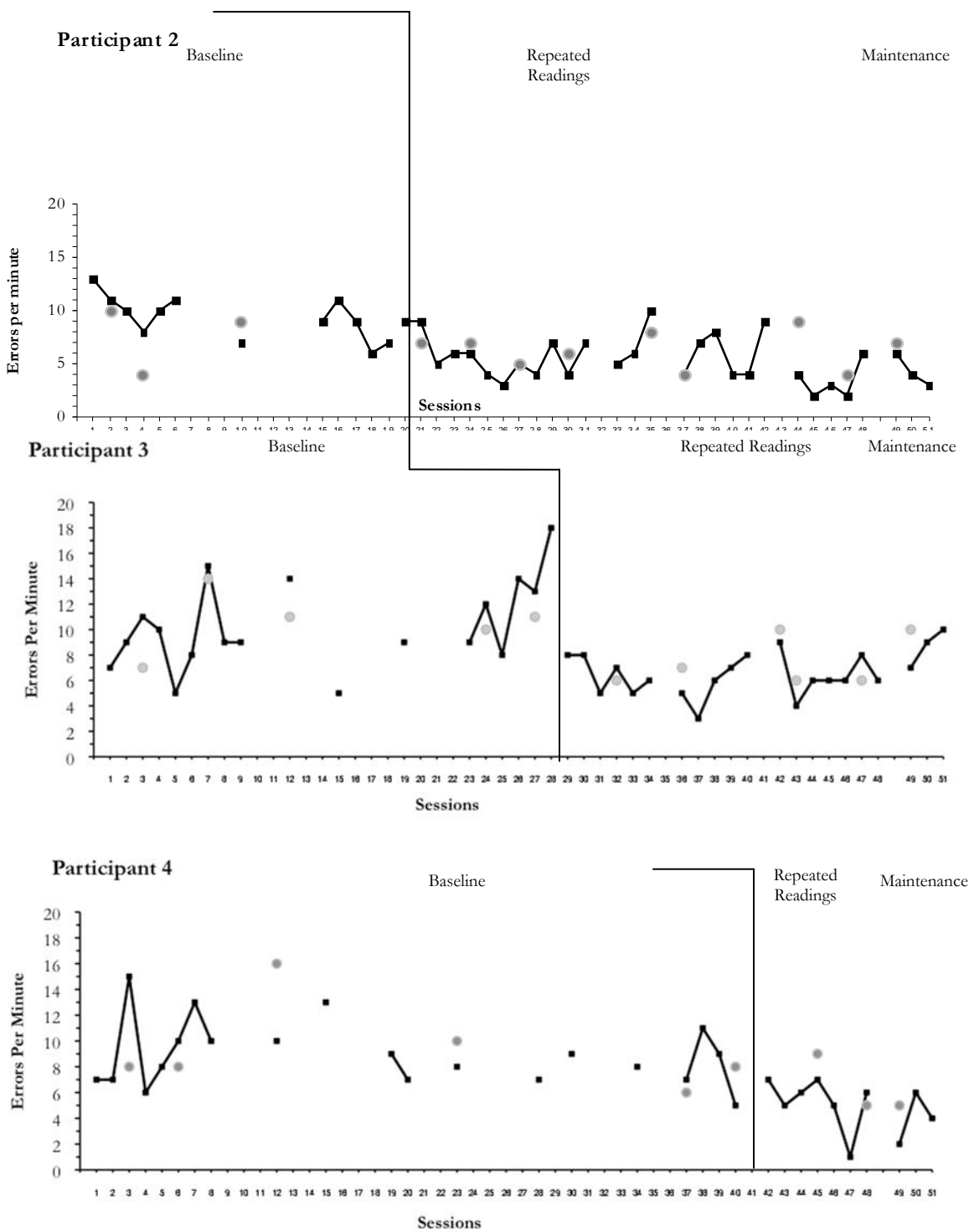
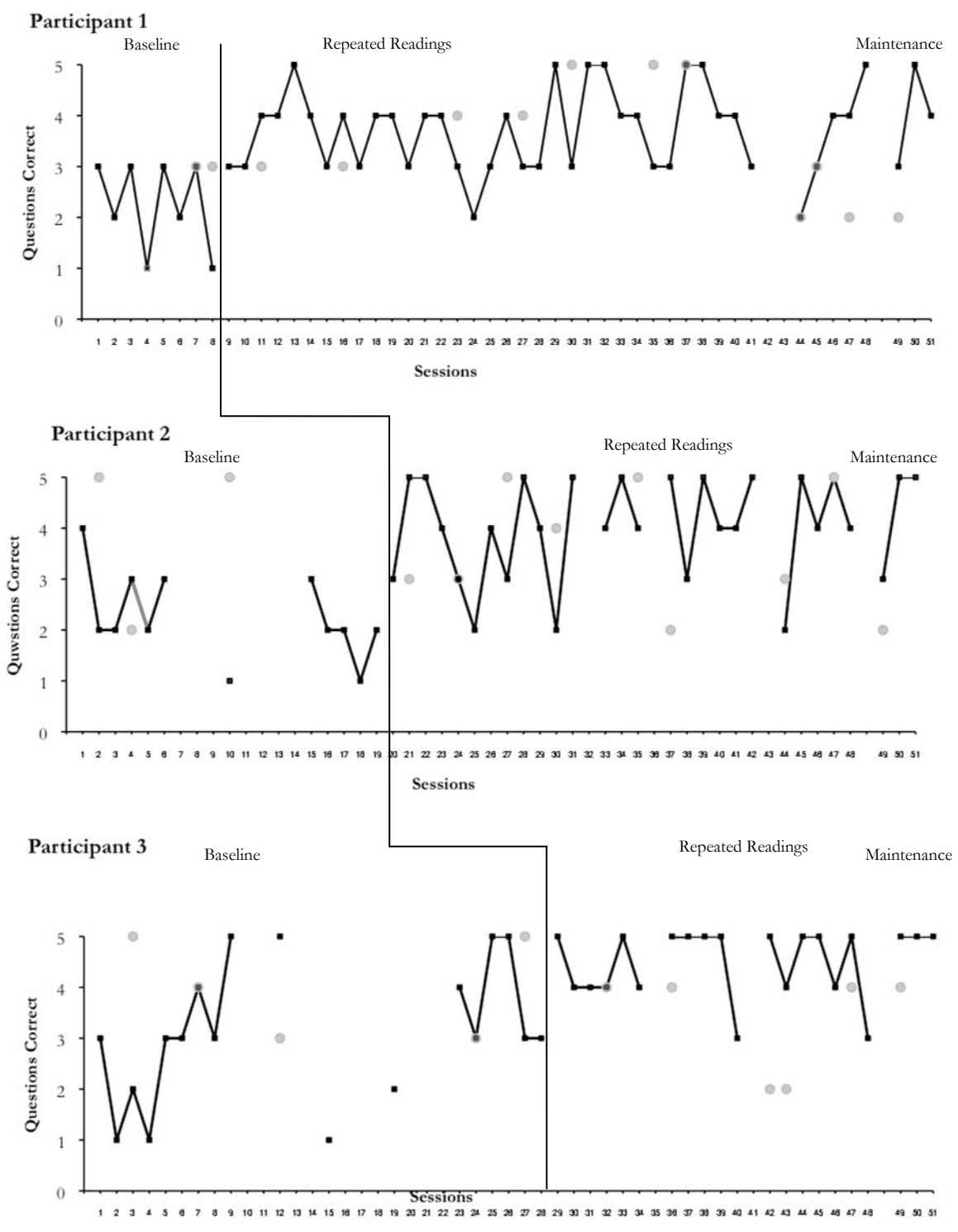


Figure 2. Errors Per Minute as measured by the number of words read incorrectly per minute during a 1-minute fluency assessment at the end of each session.

Literal Comprehension Questions



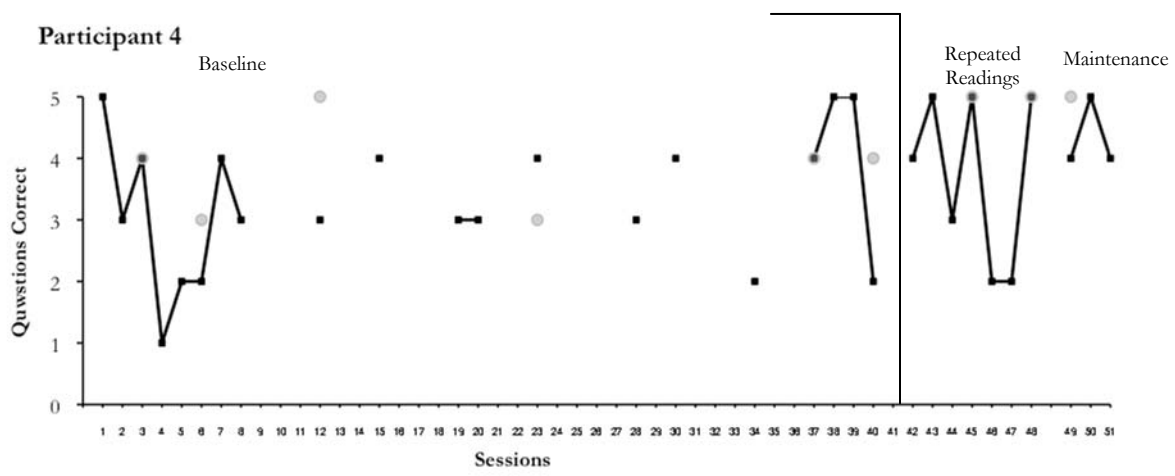


Figure 3. Literal Comprehension as measured by the number of literal comprehension questions answered correctly during the literal comprehension assessment at the end of each session.