The Relationship Between Text Topic Interest and Reading Performance
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Abstract
The effectiveness of reading interventions depends on numerous factors such as participants' reading abilities, type of intervention, length of intervention, etc. An additional factor related to the effectiveness of reading interventions was the topic interest level. This particular study examined whether text topic interest level influenced the readers’ performance on reading comprehension. The hypothesis was that text topic interest level was a major factor in the effectiveness of reading intervention. The participants in this study were 36 4th graders from a regional school. The participants were divided into three groups. Group A received intensive instruction on reading comprehension, Group B received intensive instruction on reading fluency, and Group C received no instruction. Reading comprehension and fluency were measured at the beginning and the end of the study. Results showed that reading comprehension scores increased significantly for all three groups, but reading fluency scores increased significantly only for the Group B. This suggests that text topic interest level was more important for reading comprehension than for reading fluency.

Introduction
Reading is a fundamental skill that underlies academic success and is essential for people to thrive in their day-to-day life. Literacy skills are required in nearly every academic subject and are essential for daily activities such as grocery shopping, using computers, reading road signs, and searching for jobs. Despite the importance of this skill, a recent National Assessment of Educational Progress Progress Report reported that 33% of 4th grade students and 24% of 8th grade students are reading below grade levels (National Center for Education Statistics, 2011). Reading skill deficits likely contribute to adverse outcomes for students such as grade retention, dropout, and poor academic achievement (Walcott, Edgar, & Neel, 1995). With that in mind, it is important to highlight that early opportunities for success in reading and early reading interventions to remediate these deficits and facilitate success are crucial. Among the variables that can contribute to the effectiveness of reading interventions is text topic interest. Previous studies have indicated links between reading, interest, and reading performance. Ainsley, Hillman, and Hildi (2002) found that the content of the text titles of passages, the character in the story, contributed to reading levels. Wiegfield, and Hamrick (2006) found that presenting a stimulating task to go along with a related book will increase situational interest in the reading material and consequently, will increase students’ comprehension. Additional studies found that higher levels of topic interest were positively related to reading comprehension. Ainsley, J. et al. (2002) found that text topic interest was related to inference generation and recall. Finally, Lin and Zubrisky (1997) discovered that the more interest the participant had in the text topic, the more confident they reported they were in their knowledge about the topic and their ability to answer inference questions about it. Clearly, interest plays an important role in reading and its role in reading interventions should be further examined.

Method
Participants
Four participants (three females, one male) were selected for this study. Three 5th graders, one 4th grade student were selected. The reading comprehension questions were answered correctly by a 4th grade student and a 5th grade student. The reading fluency questions were answered correctly by two 5th grade students.

Materials and Measures
This program was an adaptation of the Read Naturally Intervention. Read Naturally is comprised of short, structured passages focusing on topics in science and social sciences. Each passage has a picture illustrating the topic as well as key vocabulary words and comprehension questions at the end. Oral reading fluency is the speed and accuracy with which a person can read. It was measured by the correct words read in one minute for each passage. The participants’ reading comprehension was indicated by the percentage of comprehension questions the student answered correctly after each passage. It should be noted that there is no information on the reliability or validity of the outcome measures as they are part of the instructional package of Read Naturally and not true CBM.

Procedure
Prior to the study, text topics were presented and participants were asked to rate each topic using a visual scale (1 = very interesting, 4 = not at all interesting). The students employed a multiple baseline design, in which participants were presented with low-interest text topics first in varied quantities before they switched to high-interest text topics. The intervention was implemented every weekday over approximately four weeks. In each session, interventionists reviewed the vocabulary for the passage with the child before they began reading and asked the student to make a prediction about the passage in some cases. Then the students read the passage for one minute and the interventionist calculated words read correct and errors. This “score card” was recorded on a graph for the student to see. Next Listing Passage Preview and Repeated Reading were applied to the passage. The student then read the passage aloud one more time while the interventionist recorded words read correct and errors for a “hot score.” The “hot score” was then compared to the student could see his or her growth on the passage. Students then answered brief comprehension questions about the passage.

Results
Visual analysis of the results indicated the trend, level, variability, and immediacy of the data for each participant. Melany exhibited a steep downward trend in the baseline condition of the ORF hot read measure with a mean of 122 and a median of 129 (range = 99-139). The trend immediately increases and even out in the intervention phase with a mean of 133 and median of 131 (range = 111-156). Chris exhibited a similar trend in the baseline phase and the intervention phase. However, there was an immediate increase in his baseline phase with a mean of 146 and a median of 148 (range = 129-168) to his intervention phase with a mean of 173 and a median of 173 (range = 147-189). Payton exhibited a consistent trend and level in the baseline and intervention phases with a mean of 112 in baseline (median = 112, range = 106-132) and a mean of 116 (median = 121, range = 102-133) in the Intervention phase. Margaret also exhibited consistent performance across phases. Her mean in baseline was 129.5 (median = 123.5, range = 117-141) and mean in the intervention phase was 130.5 (median = 123.5, range = 124-147). It is important to note that Chris and Margaret may have maxed out their skills in ORF because there are limits to how fast students can read at a given age. There was no clear effect of text topic interest on the percentage of correctly answered comprehension questions for any of the participants.

Discussion
For Melany, text topic interest appeared to have a positive impact on her reading performance with a significant increase in her ORF scores as evidenced by the changes in the trend and level of her scores. Chris’s ORF was also positively impacted by the intervention in text topic interest according to visual analysis of the data. For both Payton and Margaret, text topic interest did not impact their ORF, resulting from a summer program where ORF was the only measure. All participants experienced a significant difference between their “cold read” scores and their “hot read” scores in each session, which suggests that the intervention was working well to improve their Oral Reading Fluency. Each passage. Practical implications for school personnel are that text topic interest may improve reading performance for some students and that the intervention used in this study works to improve students’ ORF.

Limitations
There are a few limitations to consider in this study. First, the change in ORF from baseline to the intervention phase for Melany and Chris may have been affected by factors other than text topic interest, such as the practice effect. Second, individual interest of the participants was not measured and it may have impacted their performance on certain passages. Third, the psychometric properties of the visual scale for interest was that used to measure situational interest are not known.

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References
Wigfield, A., & Eccles, J. S., & Halman, K., & Hildi, S. (2002). Problem Given the importance of reading interventions for students who have reading difficulties, and the fact that text topic interest is strongly associated with the effectiveness of these interventions.
Research Question
There is an impact of text topic interest level on reading comprehension and Oral Reading Fluency in the context of a reading intervention.

Hypothesis
Text topic interest is related to performance on reading comprehension questions presented after a passage and participants’ reading speed and accuracy (Grabski, 2011). The intervention was predicted that a high level of text topic interest in a passage would result in a higher percentage of comprehension questions answered correctly and a higher Oral Reading Fluency score.