

## The Effect of Mandatory Reading Logs on Children's Motivation to Read

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### Abstract

Reading logs have become a practice in many elementary schools. Although lack of autonomy undermines intrinsic motivation (Lepper, Greene, & Nisbett, 1973), no study has examined the effect of logs. Second and third-grade students ( $N=112$ ) were assigned either a mandatory or voluntary log and surveyed about their motivation to read at baseline and after two months. Students with mandatory logs expressed declines in both interest and attitudes towards recreational reading in comparison to peers with voluntary logs, and attitudes towards academic reading decreased significantly from pre to post test across conditions. Future research should explore alternate ways to promote reading.

Keywords: reading, motivation, reading logs

Reading plays a crucial role in developing the foundation for future educational success, yet the amount of time spent reading is steadily declining among students throughout the United States (NEA, 2007). Time spent reading is strongly correlated with a number of personal and social benefits including academic success, higher average salaries, and positive community involvement (NEA, 2007), underscoring the need for educators find a way to reverse the trend toward less reading.

Reading logs are designed to encourage reading by assigning daily reading homework for a minimum number of minutes and are popular in many elementary schools. Although research has shown that diminished autonomy, defined as the ability to choose one's own actions, undermines intrinsic motivation (Ryan & Deci, 2000), no research thus far has investigated how mandatory reading assignments, like reading logs, affect children's intrinsic motivation to read. In an effort to fill this gap, the current experiment examined the effect of mandatory reading logs on children's motivation to read.

Well-meaning school officials expect that reading logs will increase the amount of time students spend reading. Parents are typically asked to remind their children to do their reading and to sign their logs each night. The long term effect of reading logs may, however, be a decline in student motivation to read, and the logs ultimately may lead students to spend less time reading. Research has established that there are two distinct kinds of motivation, intrinsic and extrinsic. Individuals are intrinsically motivated when they pursue an activity as an end in itself, without external motivators (Ryan & Deci, 2000). Considerable research evidence shows that the introduction of external controls such as assigned goals, evaluation, deadlines, and surveillance can undermine intrinsic motivation (e.g., Deci, Koestner, & Ryan, 1999; Deci, Koestner, & Ryan, 2001; Deci & Ryan, 1985). Moreover, the undermining of intrinsic motivation is associated with serious costs, including showing less interest in and having more negative attitudes towards the activity, producing lower-quality work, and being less creative (e.g., Cordova & Lepper, 1996; Deci, Koestner, & Ryan, 1999; Ryan & Deci, 2000).

With regard to reading, studies have shown that individuals who are not intrinsically motivated read for shorter periods of time and are less likely to choose reading as a recreational activity than extrinsically motivated readers (e.g., Baker & Wigfield, 1999; Paris & Oka, 1986;

Wigfield & Guthrie, 1997). Research has found that positive attitudes towards reading are the strongest correlate of reported time spent on recreational reading (Allen, Cipielewski, & Stanovich, 1992; Greaney & Hegarty, 1987; Scales & Glenn, 1984) and therefore can serve as an estimate of time spent in the activity.

Recognizing the benefits of intrinsic motivation, researchers have focused on the conditions under which individuals become intrinsically motivated. Bem's self-perception theory (1967) states that individuals attribute the motivations of their actions based on observations of their own behavior. Thus, if rewards are not made salient, children will not attribute their behavior as being extrinsically motivated (Hunter & Barker, 1987). The motivational implications of self-perception theory are reflected in Deci and Ryan's (1985) cognitive evaluation theory (CET), which contends that individuals require a sense of competence and autonomy to be intrinsically motivated.

An individual's sense of autonomy, defined as the ability to choose one's own actions, is an especially important determinant of intrinsic motivation (Ryan & Deci, 2000). Rewards, surveillance, pressure, control, and deadlines have all been shown to decrease intrinsic motivation (e.g., Amabile, DeJong, & Lepper, 1976; Deci & Cascio, 1972; Plant & Deci, 1985; Plant & Ryan, 1985). A more recent meta-analysis of the use of tangible and verbal rewards concluded that children appear to be particularly sensitive not just to rewards, but to an array of controlling tactics, such as imposed goals, deadlines, and surveillance, and that this result is especially true for children of elementary age (Deci, et al., 1999). However, unexpected rewards have been found slightly to increase intrinsic motivation in an activity (Deci, Koestner, & Ryan, 2001; Lepper, Green, & Nisbett, 1973). A meta-analysis of 128 studies showed that although tangible rewards decreased intrinsic motivation for an activity, certain types of external rewards,

like praise, were less damaging and could even have positive effects on intrinsic motivation (Cameron, 2001). A review of praise literature found that when given in a manner that promotes effort, competence, autonomy, and is informative rather than controlling, praise can significantly enhance motivation (Henderlong & Lepper, 2002). While external motivators may have a positive impact on intrinsic motivation, it is possible that the introduction of nightly reading logs may not be interpreted as a helpful form of structure but instead as a controlling manipulation.

Despite their popularity, there has been no research conducted on the effects of reading logs on children's motivation to read. It is possible that these types of mandatory reading assignments may undermine children's motivation to read because of their inherently controlling nature. When forced to read for a minimum number of minutes each night, children may feel that reading is an externally imposed activity, rather than something they choose of their own volition.

The present experiment investigated this question by testing the effect of reading logs on students' interest in and attitude toward reading. It was hypothesized that, compared to children given voluntary reading logs, children assigned mandatory reading logs would report: 1) less interest in reading, 2) more negative attitudes towards academic reading, and 3) more negative attitudes towards recreational reading.

## Method

### *Recruitment*

Second and third grade teachers in a suburban school district were approached in the spring preceding the study. The researcher explained the rationale behind the study, described the procedure, and answered questions. In total, 14 teachers agreed to participate in the study,

and each class was randomly assigned to be either in the mandatory or voluntary reading log condition.

Student participants were recruited at the beginning of the next school year. Students were told that the purpose of the study was to examine children's attitudes towards reading. Students were then given an informational packet to take home and read with their parents. The packet consisted of a letter from the school principal endorsing the study, a letter describing the study, and a consent form for both the parent and child.

### *Participants*

The sample for this study consisted of 112 2<sup>nd</sup> and 3<sup>rd</sup> grade students ranging in age from 6 to 8. Seventy students (63%) were in the 3<sup>rd</sup> grade, and 42 students (37%) were in the 2<sup>nd</sup> grade. Students were randomly assigned by class to either the voluntary reading log or mandatory reading log condition. Fifty-seven students (52%) were in the voluntary reading log condition, and 55 students (48%) were in the mandatory reading log condition. No additional demographic information was collected from participants in order to protect their privacy

### *procedure*

Teachers in the mandatory reading log condition assigned their students to read at least 20 minutes each night (but students were free to read more if they so wished) and required them to record their reading in a log with a parent signature after each entry. In the voluntary condition, teachers encouraged students to read and distributed logs but emphasized that it was an optional activity.

Participants took a survey both at the start and at the close of the study to see if attitudes and/or interest in reading changed. Two measures were used to measure intrinsic motivation. The attitudes component was drawn from the Elementary Reading Attitudes Survey (ERAS)

(McKenna & Kear, 1990) a 20-item survey that consists of two subscales: recreational and academic reading. Research has found that the recreational reading attitudes subscale of ERAS is strongly correlated with time spent reading as recorded in the daily activity diary of participants (Allen, Cipielewski, & Stanovich, 1992). Kids too young for accurate diary?

Each scale of ERAS consists of 10 items, and the survey has been found to be highly reliable across a large population (McKenna, Kear, & Ellsworth, 1995). Permission to use and adapt the survey was obtained from the creators. After discussion with teachers at both elementary schools, the academic reading subscale was modified to match the needs of this particular population, and 3 items were removed. One item referred to the use of a dictionary in class, which teachers in the 2<sup>nd</sup> and 3<sup>rd</sup> grades in neither school used. The second item referred to workbook pages and worksheets, which were also not used by teachers in the 2<sup>nd</sup> and 3<sup>rd</sup> grades. Finally, an item referring to “learning from a book” was removed because reading teachers believed that young students would not be able to understand the question. In addition, at the suggestion of teachers, one item was changed so that it read, “How do you feel about taking reading assessments” rather than “reading tests?”

Both attitude scales were answered on a 4-point scale, with each point depicted by a different image of Garfield. The leftmost image of Garfield (smiling Garfield) indicated strong agreement with the statement, while the rightmost image of Garfield (angry Garfield) indicated that strong disagreement with the statement. A Cronbach’s alpha revealed that students’ responses on the recreational reading subscale had a high reliability of .80 in the pretest, and a sample item from the recreational reading subscale was, “How do you feel about spending free time reading a book?” Student responses to the academic reading subscale also had a high

reliability of .81 in the pretest, and a sample item from the Academic Reading scale was, “How do you feel when you read aloud in class?”

The Reading Interest Scale is a 6-item scale adapted from the 7-item Interest Scale of the Intrinsic Motivation Inventory (Ryan, 1982). One item was removed (“This activity did not hold my attention at all”) because the elementary teachers believed that the item would be difficult for 2<sup>nd</sup> and 3<sup>rd</sup> graders to answer. A sample item read, “I enjoy reading very much.” The word “reading” replaced the general term “activity” to make it specific to this study’s question – that’s true on all the items?. Finally, the scale was answered on a 4-point Likert-type scale, but it was adapted so that instead of numbers, students saw the pictures of Garfield used in ERAS. A reverse-scored item was rephrased from “I thought this was a boring activity” to “I think reading is boring” because teachers believed the original item may have been confusing for 2<sup>nd</sup> and 3<sup>rd</sup> graders to answer. A Cronbach’s alpha revealed that student responses to the Interest Scale had a high reliability of .79 in the pre test.

Because all students may not have had achieved the fluency necessary to complete the survey independently, each item was aloud while administering the survey. Before survey administration, the Garfield scale was explained to the students. Participants were told that the survey would gauge how they felt about reading. It was emphasized that the survey was not a test and there were no “right answers”. Students required approximately 20 minutes to complete the survey.

## Results

### *Data Analysis*

Students’ responses on the Recreational Reading subscale of the ERAS, the Academic Reading subscale of the ERAS, and the Reading Interest scale were averaged separately to obtain

a score for each scale. Repeated-measures ANOVAs were used to examine hypothesized differences between groups in attitudes and interest. In all tests, an alpha value of .05 was used as the cutoff for statistical significance. Preliminary analyses showed there was no effect for grade that approached significance ( $p > .10$ ), so this variable was not included in the main analyses.

### *The Effect of Mandatory Reading Logs on General Interest in Reading*

A two-way ANOVA was performed with Condition (assigned/voluntary) as a between-subjects factor and Time (pretest/posttest) as a repeated measure. A significant interaction was found between interest in reading and condition,  $F(1, 112) = 8.38, p < .05, \eta^2_p = .07$ . As depicted in Figure 1, students assigned mandatory reading logs experienced a decrease in interest in reading ( $M=3.06$  to  $M=2.89$ ), while students given voluntary reading logs experienced an increase in interest in reading ( $M=3.08$  to  $M=3.29$ ).

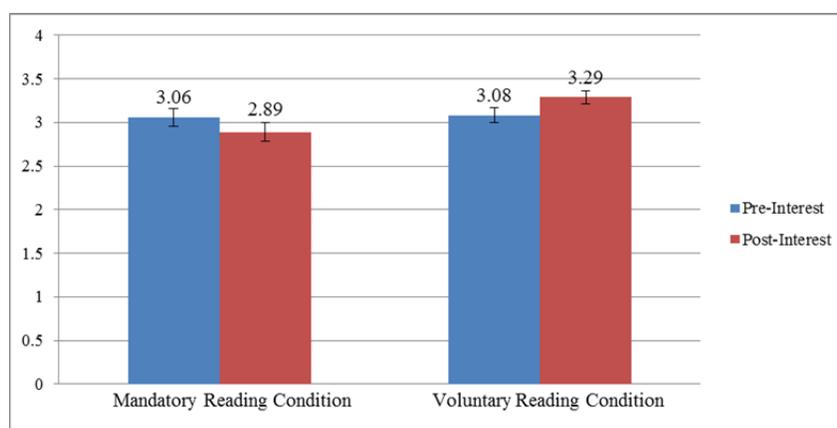
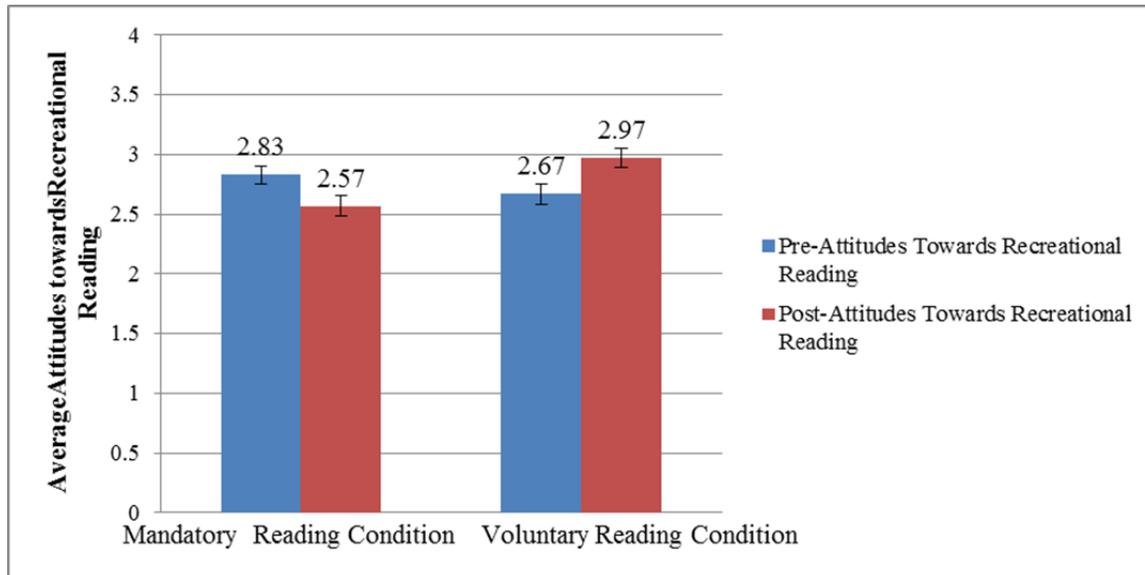


Figure 1. The interaction between pre and post test and interest in reading

### *The Effect of Mandatory Reading Logs on Attitudes towards Recreational Reading*

Another repeated-measures ANOVA revealed that there was a significant interaction between attitudes toward recreational reading and condition,  $F(1, 112) = 22.64, p < .001, \eta^2_p =$

.17. Figure 2 shows that students assigned mandatory reading logs experienced a decrease in attitudes toward recreation reading ( $M=2.83$  to  $M=2.57$ ), while students given voluntary reading logs experienced an increase in interest ( $M=2.67$  to  $M=2.97$ ).



#### *The Effect of Mandatory Reading Logs on Attitudes towards Academic Reading*

No significant interaction was found between attitudes toward academic reading and condition,  $F(1, 125) = 0.33$ ,  $p = .57$ ,  $n^2_p = .003$ . However, there was a significant difference between pre and post-tests overall,  $F(1, 125) = 1298.76$ ,  $p < .001$ ,  $n^2_p = .91$ , as depicted below in Figure 3. Students assigned mandatory reading logs experienced a decrease in attitudes towards reading ( $M=3.50$ ,  $M=2.86$ ), as did students given voluntary reading logs ( $M=3.45$ ,  $M=2.79$ ).

### Discussion

#### *The Impact of Mandatory Reading Logs on Interest in Reading*

As hypothesized, there was an interaction between pre and post test scores and condition on interest in reading; students who were assigned mandatory reading logs reported a decrease in interest, while students who were given voluntary reading logs reported an increase in interest.

The mandatory reading log, with its minimum requirement of 20 minutes of reading, may have undermined children's sense of autonomy and subsequently reduced their interest in reading in the same fashion that reduction in autonomy – in the form of deadlines, surveillances, and threats – have been shown to lead to decreases in task interest (Amabile, et al.,1976; Deci & Cascio, 1972; Plant & Deci, 1985).

#### *The Impact of Mandatory Reading Logs on Attitudes Towards Recreational Reading*

The study revealed a similar interaction between pre and post test and condition on attitudes towards recreational reading. At the end of the study, students in the mandatory log condition reported more negative attitudes toward recreational reading while the students who were simply encouraged to read reported more positive attitudes. Although there have not yet been previous studies on the topic of mandatory reading assignments, studies on surveillance, pressure, control, and deadlines have all shown that a decrease in autonomy leads to more negative attitudes towards the activity (Amabile, et al.,1976; Deci & Cascio, 1972; Plant & Deci, 1985). As suggested by self-perception theory (Bem, 1967), when reading is portrayed as something one has to be forced to do, students may draw the conclusion that it is not the kind of activity they want to engage in when given free time.

#### *The Impact of Mandatory Reading Logs on Attitudes Towards Academic Reading*

Contrary to the hypothesis, students in both conditions expressed more negative attitudes towards academic reading from pre to post-test. Attitudes towards academic reading is a measure of children's attitudes toward reading to learn, or, in other words, using reading as a tool by which to obtain new information. It is possible that students may have come to feel more negatively about academic reading over the two-month period of the study, as there is typically little opportunity for autonomy within academic reading. Often, the entire class reads the same

material (e.g., a textbook). Because students' ability to choose may have been circumscribed within academic reading in both conditions, it is possible that a lack of autonomy led to a decline in attitudes towards reading across both conditions. That students may find reading in school to be un motivating is a troubling finding in that externally motivated individuals often display less creativity, interest, and enjoyment in a task than internally motivated individuals (Deci, et al., 1999). Most importantly, externally motivated individuals do not pursue the activity of their own accord after external motivators are removed (Ryan & Deci, 2000; Deci, Koestner, & Ryan, 2001).

### *Conclusion*

To explore the possibility that lack of choice is responsible for the decline in interest and attitudes towards in academic reading, it would be useful to test the effect of giving students more choice when reading to learn. In addition, a longitudinal study would enable researchers to see if the decline in children's attitudes towards academic reading continues throughout the entire year and as they enter middle and high school.

It is worth noting that the experimental manipulation only lasted two months. Many schools use reading logs with students over many successive years. While it is possible that the negative effects of such practices become less pronounced over time, it is also possible that they are additive, ultimately leading some students to reject reading altogether. School officials and researchers need to partner to explore these issues more thoroughly and over a longer time period.

The importance of reading is virtually undeniable, and yet, motivating children to read has been a struggle for many educators and parents. Unfortunately, the results of this study suggest that resorting to methods like mandatory reading assignments such as reading logs are

ineffective ways of fostering a love of reading and may even lead to a decrease in children's motivation to read. To stem the tide of the declining time spent reading, educators should explore the possibility of crafting assignments that enable students to be more autonomous readers.

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