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# Motivational Changes in Reading Recovery Children: A Pre and Post Analysis

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Becoming literate is critical to school success, yet poor readers continue to lose ground in literacy development while those who demonstrate literacy skills early continue to make gains (Cunningham & Stanovich, 1997; Stanovich, 1986). In fact, learners who are poor readers at the end of first grade are likely to remain so at the end of fourth grade (Juel, 1988). Such findings suggest a critical window in literacy development; by the end of first grade, students who are not successful readers remain unsuccessful in future grades (Cunningham & Stanovich; Juel; Stanovich). Likewise, there is growing evidence that suggests there is a reciprocal relationship between reading achievement and reading motivation (Chapman & Tunmer, 2003; Quirk, Schwanenflugel, & Webb, 2009; Wigfield et al., 1997). Motivation affects overall academic success (Bandura, 1997; Deci, Vallerand, Pelletier, & Ryan, 1991) and more specifically, literacy performance (Gambrell, 2011; Morgan & Fuchs, 2007; Schunk & Zimmerman, 1997). One explanation for this is that positive motivation, in turn, affects self-efficacy, higher achievement, and perseverance. An additional related factor is valuing reading — learners who value or enjoy reading are more likely to put forth increased effort on literacy tasks (Csikszentmihalyi, 1990; Eccles et al., 1983; Oldfather, 2002; Wigfield & Guthrie, 1997).

Most Reading Recovery professionals would attest to the impact that Reading Recovery has on motivational factors; they see the changes in learner motivation during daily lessons and hear reports from classroom teachers and parents. However, there is limited research exploring self-systems related to self-concept, competence beliefs, and/or valuing

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**This investigation set out to determine whether Reading Recovery students demonstrate positive responses in regard to motivational constructs of self-concept, competence beliefs, and/or valuing of reading within Reading Recovery.**

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of reading within Reading Recovery. There is, however, a growing body of research within the early grades, K–2, related to these constructs. Using the foundation of early literacy research, and more specifically, early literacy interventions, this investigation set out to determine whether Reading Recovery students demonstrate positive responses in regard to these motivational constructs. Within this article, we will review some key stud-

ies on motivation and interventions, particularly those related to Reading Recovery, report the findings of our research, and then discuss implications for future research related to Reading Recovery.

## The Role of Motivation in Learning

Motivation has an important role in learning. Once thought to be centered on drives (Weiner, 1990), current theorists and researchers recognize that goals (Schunk, 2003), self-concepts (Dweck, 2000) competence beliefs (Wigfield & Eccles, 2002; Wigfield et al., 1997), self-efficacy (Bandura, 1997; Schunk, 1985), values (Wigfield & Eccles), and sociocognitive/sociocultural influences (Oldfather, 2002; Schunk & Pajares, 2002) are important factors related to motivation. In turn, these motivational goals, attitudes, values, beliefs, and influences are important in literacy development.

Experiences, instruction, and participation in learning contexts link emotions, attributions, and expectations for success or failure with cognitive activity (Lyons, 2003; Winne & Marx, 1989). When learners control tasks and move toward goal attainment, these positive feelings of success are stored in memory. In contrast, if students are working to complete a task, then self-monitor, and subsequently decide their resulting outcome (or product) is deficient,

negative feelings are stored (Winne & Marx). Repeated occurrences of these negative learning experiences can establish a state of learned helplessness or passivity. (See Fullerton, 2001, for a case example.) Such responses are in direct contrast to what underlies motivation — internal states which move the learner to act, to invoke strategic processes. Either way, such experiences will also impact competence beliefs and expectancies for success (Eccles, Adler, & Meece, 1984; Eccles, Wigfield, Harold, & Blumenfeld, 1993; Wigfield & Eccles, 2000; Wigfield et al., 1997). Competence beliefs connect two important perceptions — views related to the self and views related to the task. In this case, the task relates to valuing reading and may result in readers who demonstrate increased effort on literacy tasks (Eccles et al., 1983; Oldfather, 2002). Thus, there is also a reciprocal relationship between valuing of learning tasks and achievement motivation. For example, when a child enjoys taking home a book that he can successfully read to a family member, it is likely that his self-efficacy and perceptions of competence will be positively affected and may even bring about increased valuing as a result of the emotions he feels as a part of the endeavor. A counterexample is a child who brings home a book that she knows is too challenging; a response may be the face-saving attribution of limited effort as the cause of lack of success. Such attributions are frequently exhibited by struggling readers. Therefore, it is not surprising that research evidence suggests that motivation seems to diminish as children progress through school, and perceptions of ability are also likely to decline (Dweck, 2002). Potentially, contextual factors such as

supportive environments and good first teaching may lessen or at least slow the decline.

### **Related Research with Students Experiencing Early Reading Failure**

Increasingly, there are studies that have examined the changes in learners' motivation during the early grades, but there is also a need to examine the motivational changes in struggling readers. Morgan, Fuchs, Compton, Cordray, & Fuchs (2008), conducted an investigation to determine whether early reading failure decreases reading motivation. Seventy-five first-grade subjects were designated as high-skilled ( $N = 30$ ) or low-skilled ( $N = 45$ ) based on a sight word list task. Fifteen of the low-skilled students were randomly assigned to 25–30 hours of small-group tutoring. The poorer readers (low skilled) reported lower reading self-concepts than did the skilled readers. These poorer students were also characterized as less likely to participate in independent reading practice. In spite of increasing children's skills through the small-group support, there were not corresponding changes in reading self-concept, motivation, or task orientation. Rather, the researchers suggested that the earlier level of motivation and practice strongly predicted the later level of motivation or practice (task orientation). Again, these results warrant concern — they indicate that learners who were at risk for reading failure began the study trailing their skilled peers in reading motivation and practice and remained behind after the small-group intervention. The authors posited that the “reading skills — reading motivation relationship emerges quickly (i.e., by midway

into first grade)” (p. 399) echoing the earlier findings presented by Dweck (2000, 2002).

Morgan et al. (2008) acknowledged that tutoring children on word-based strategies did not result in positive changes in motivation. They also pointed out that word-level strategies have been recommended as improving reading motivation and that text-based strategies have been associated with lower motivation in the research of Chapman and Tunmer (Chapman & Tunmer, 1995; Chapman, Tunmer, & Prochnow, 2000, Tunmer & Chapman, 2002). Yet, within their investigation, they found that “word-based strategies were similarly ineffective in terms of reading motivation” (p. 399).

Along similar lines of other investigations, Chapman, Tunmer, & Prochnow (2000) conducted a longitudinal investigation examining the relationship between academic self-concept (ASC) and reading performance and reading self-concept. One of the goals of this research was to gain a sense of the point when self-perceptions and reading performance interact. Assessed at the beginning of Year 1 in school, again at the end of Years 1 and 2, and finally, at mid-point in Year 3, the researchers found that children who had negative ASCs had poorer requisite literacy skills (phonological sensitivity and letter naming) than children with more-positive ASCs. Results also indicated that by the end of the first year as well as the third, the children who had negative ASCs read at lower text levels and performed more poorly on word recognition and comprehension measures. Of particular interest is that these differences in performance between the negative and positive

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self-concept groups “emerged very quickly” (p. 707). The researchers presented findings consistent with the view that academic self-concept “forms in response to early learning experiences” (p. 707), foreshadowing the findings of Morgan and colleagues (2008), that reading difficulties are mirrored in self-perceptions of reading ability and eventually lead to a more-generalized negative academic self-concept. Again echoing the findings just discussed, Wilson and Trainin (2007), using confirmatory factor analysis to test the reliability and validity of The Early Literacy Motivation Survey, argued that self-influence constructs (attributions, competence-difficulty relationships, and self-efficacy) are strongly linked to early literacy performance as early as mid-first grade. These findings suggest important implications for early intervention and more specifically, first- and second-entry implications within Reading Recovery.

### Related Research in Reading Recovery

Reading Recovery is a well-researched intervention (D’Agostino & Murphy, 2004; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994; Schwartz, 2005); yet, only a few studies have explored motivational aspects. In this section,

we review motivation investigations related to struggling readers who have received the Reading Recovery intervention.

In a case study of a Reading Recovery student, Fullerton (2001) outlined the particular motivational constructs that helped to explain the response patterns of a first grader who displayed diminished competence beliefs and learned helplessness traits, but as a result of one-to-one interactions that facilitated the child’s literacy development, changes occurred in the child’s self-regulation and engagement. In turn, increased levels of persistence resulted in the child achieving reading levels beyond most of his classroom peers.

Three other studies (Cohen, McDonell, & Osborn, 1989; Townsend, Townsend, & Seo, 2001; Wade & Moore, 1998) examined Reading Recovery students’ self-perceptions, efficacy, attitudes (valuing) as motivational constructs *after* the intervention was completed. As a result of their investigation, Cohen et al. asserted that Reading Recovery appears to influence achievement motivation in positive ways because it facilitates a sense of control and increased ability, quite similar to the conclusions of Fullerton (2001).

Of the 138 first graders in Cohen et al., (1989), 50 were in Reading Recovery, 48 in small-group tutoring sessions, and the other 40 were high-achieving students. The two measures used in the study were an attribution scale developed by the first author and a self-efficacy measure adapted from Schunk (1985). As noted previously, the scales were given after students had completed their interventions. Findings indicated that there were significant differences between the Reading Recovery children and other at-risk students on three of the five attributions of ability, effort, and mood. Furthermore, there were no significant differences between the Reading Recovery and high-achieving children. As a result, the authors suggest that the Reading Recovery students became more like the high-achieving learners and attributed their success to internal and stable causes. For example, the Reading Recovery students responded with more self-efficacious responses than the at-risk group on the self-efficacy measure. Cohen et al. conclude their report by stating that “Reading Recovery increases ability and effort attributions as well as self-efficacy, variables that have been demonstrated to mediate self-regulated classroom behavior and achievement motivation” (p. 122).

While the Cohen et al. data were collected immediately after the intervention, the Wade and Moore (1998) study (as cited in Townsend et al., 2001) was conducted a considerable time after the intervention was completed. Conducted in Victoria, New South Wales and in New Zealand, the investigation was conducted 4 or 5 years after students participated in Reading Recovery. A standardized measure of reading comprehension

as well as an “Attitudes to Reading” questionnaire evaluated 121 former Reading Recovery students. The instrument asked students to rate their perceptions of their reading ability and used Likert-type items to assess valuing of reading. For example, students responded to items such as “Reading is very important” on a 5-point scale from strongly agree to strong disagree (as cited in Townsend et al., p. 585).

Former Reading Recovery students were compared to children in the same year who had average or below-average reading skills. In spite of the comparison group’s higher reading ability overall, results indicated that the former Reading Recovery students had “significantly greater reading comprehension (by approximately 1 year of reading age), and were significantly more positive about reading” than their non-Reading Recovery classmates (as cited in Townsend et al., 2001, p. 585). Furthermore, those in Reading Recovery had more positive self-perceptions of themselves as readers. As Townsend and colleagues point out, “these results are noteworthy given the length of time that had elapsed since the program, and the fact that the comparison children were initially a more able group of readers” (Townsend et al., p. 585).

In another retrospective investigation conducted in New Zealand, Townsend et al. (2001) attempted to ascertain the motivational effects of Reading Recovery in a follow-up study specifically focused on self-concept and task value. Some of the children had received the Reading Recovery intervention in Year 2 (equivalent to first grade in the United States). Participants were from

Years 4–6 (equivalent to Grades 3–5 in the United States); 36 of the 103 children had completed Reading Recovery. In addition, 31 of these children had been eligible for Reading Recovery based on literacy assessments but had not been placed in the intervention. (Most likely this was a result of an insufficient number

of intervention slots.) Finally, 36 of these participants (the random group) were not eligible because of their good reading progress at age 6.

ers found that Reading Recovery children’s responses were all in positive directions, rating their responses on the motivation measures as moderately high. The Reading Recovery group and the random group had similarly positive responses on attitude and valuing, but the responses for the self-concept scale were higher

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**In summary, the results related to motivational responses of Reading Recovery children from a small number of studies suggest that overall, motivation responses are positive after Reading Recovery. What was not answered is whether there is motivational change as determined directly before and after the Reading Recovery intervention.**

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The researchers used the Reading Self-Concept and Reading Value scales of the Motivation to Read Profile (Gambrell, Palmer, Codling, & Mazzoni, 1996) and the Attitude to Reading scale (Wade & Moore, 1998). In addition, teachers completed a questionnaire regarding each child’s reading. Standardized reading tests as well as classroom reading assessments were also reported. Overall, mean scores were higher for Reading Recovery students than for non-Reading Recovery students (who were not served) with reading comprehension as significantly higher. The scores were not as high as those for the random group. In terms of motivational responses, the research-

ers found that Reading Recovery children’s responses were all in positive directions, rating their responses on the motivation measures as moderately high. The Reading Recovery group and the random group had similarly positive responses on attitude and valuing, but the responses for the self-concept scale were higher

for the random group. Furthermore, there were no significant differences between the ex-Reading Recovery group and the non-Reading Recovery learners on self-concept, reading value, attitude toward reading, or the teacher’s ratings. Finally, the investigators found no gender differences — more boys had entered Reading Recovery, and girls had higher scores on the standardized tests, but there were no significant differences on the motivational measures responded to by the children. Interestingly, girls were rated higher than boys by their teachers.

In summary, the results related to motivational responses of Reading Recovery children from this small number of studies suggest that overall, motivation responses are positive after Reading Recovery. Both the Cohen et al. (1989) and Townsend et

al. (2001) studies measured responses *after* the intervention; the former, immediately after, and the latter, 2–4 years after, and the Wade and Moore study (1998) with even more time elapsed between the intervention and data collection. The Cohen et al. investigation suggests a positive boost in motivational responses following Reading Recovery, but the Townsend and colleagues' study suggests that over time, motivational responses were lowered in these older learners. It is important to note that neither of the studies attempted to determine if there was a change in motivational responses comparing before and after the intervention. What may be reflected in these findings, particularly Townsend et al., mirrors the research on motivation as a whole — motivation appears to diminish as children progress through the grades.

## Methods

What is not answered within these motivation studies is whether there is motivational change as determined directly before and after the Reading Recovery intervention. We set out to explore this issue by designing a study to answer two research questions:

1. Are there changes over time in the motivation responses of children during their series of Reading Recovery lessons?
2. Are there gender differences in these responses?

Our investigation focused on first graders' self-competence beliefs and value of reading *before and after* the Reading Recovery intervention. Using the Children's Reading Motivation Survey (Mazzoni, Gambrell, & Korkeamaki, 1999), we administered the questionnaire developed for

early literacy learners to explore motivational responses in at-risk readers pre- and post-Reading Recovery.

### *Data sources*

*Participants.* One hundred thirteen Reading Recovery learners participated in this investigation. These students entered Reading Recovery at mid-year, but the majority were identified as at-risk since the beginning of first grade. All participants were first graders, 49 girls and 64 boys. Students were from school districts in urban, suburban, and rural locations in a midwestern state, and included lower and middle socioeconomic statuses. The students were selected to receive Reading Recovery intervention instruction because they were the lowest-achieving readers and writers in their heterogeneous first-grade classrooms at the time of selection. These readers were at readiness, preprimer, or primer instructional levels at the beginning of their series of lessons. At the end of the series of lessons, they were all reading above first-grade levels.

It is important to note that the subjects of this investigation were all placed in Reading Recovery instruction in late winter or spring of first grade during second entry. While they were likely to have been identified as below-grade level at the beginning of the year, there were other children who scored lower on the Observation Survey (Clay, 2013) and were placed in Reading Recovery at that time. Thus, these children waited 4–6 months before they were provided with the Reading Recovery intervention.

*Measures.* As stated previously, we used the Children's Reading Motivation Survey (Mazzoni et al., 1999) in

this investigation. The instrument, adapted from the Motivation to Read Profile (Gambrell et al., 1996), was designed for elementary-age readers and measures young learners' motivation to read, specifically the constructs of valuing reading and self-concept about reading. Administered as a pre and post measure, the multiple-choice questionnaire consisted of 17 motivation response items, including two practice items (see Appendix A). The motivation response items were based on a 2-, 3-, or 4-point response scale. Placement of least- and most-positive items was varied for eight items and recoded to maintain equivalent values to other items; in other words, the highest positive responses were represented by the highest value for each item. Reliability for the survey was computed using Cronbach's alpha resulting in a reliability coefficient of .72 in the Mazzoni et al. study; ours resulted in a coefficient of .68.

### *Data collection procedures*

The Children's Reading Motivation Survey was administered by a Reading Recovery teacher to each child individually at the beginning of the intervention and again, at the completion of their series of lessons (approximately 4–5 months later, depending on entry and exit date). Since these children were not able to read the questionnaire initially (beginning of the year), conditions were kept constant; both times questions and responses were read to the child as the child followed along. Both teacher and student had a copy of the questionnaire and after hearing the question, the child chose a response by circling it. Teachers were trained in administration by the second researcher.

### Data analysis

Questionnaire data from both entry and exit periods were collected for all 113 participants. Data were entered into SPSS 16.0, a statistical analysis program. Paired-samples t-tests were used to determine the significance of changes between pre- and post-Reading Recovery survey responses for each item, as well as the total scale score. In addition, the data were analyzed using repeated measures analysis of variance (ANOVA) in order to determine if there was differential change based on gender. Gender served as the between-subjects factor and time of assessment (pre, post) served as the within-subjects factor. Of interest was the two-way interaction between time and gender, indicating if boys and girls experienced differential improvements on motivation scores.

### Findings

Using the Children's Reading Motivation Survey (Mazzoni et al., 1999), this investigation was conducted to determine whether there were differences in Reading Recovery children's motivation responses immediately before and after the intervention and whether there were gender differences in children's responses.

#### *Changes over time in the motivation responses of Reading Recovery children*

Our goal was to determine whether responses significantly differed from the time students were given the questionnaire before the intervention and again, immediately after the intervention. Total questionnaire responses (pre-Reading Recovery versus post-Reading Recovery) were compared through paired-samples (dependent) t-tests. Results indicated

that children's responses changed over time in significant and positive ways; children's responses on the post-Reading Recovery questionnaire ( $M = 35.6$ ,  $SD = 4.8$ ) were significantly different than their responses on the questionnaire administered before the intervention ( $M = 34.0$ ,  $SD = 4.9$ ),  $t(112) = 3.06$ ,  $p < .001$  (two-tailed). These results represent a substantial change in motivation responses from the time that learners entered the intervention at approximately mid-year in contrast to end-of-year when they exited the intervention.

In addition to the analysis of total responses, each survey response item was analyzed to determine whether the responses for the item differed significantly at pre and post, again using paired-samples t-tests. Responses were significantly different at pre- and post-Reading Recovery for three items (items 1, 3, and 14), with three additional items approaching

significance (items 10, 12, and 15). See Table 1 for descriptive statistics.

Two of the responses that were significantly different were related to the construct of valuing reading, item 1: "How often would you like for your teacher to read stories out loud to the class?" (Every day/Almost every day/Not much) and item 3: "Which would you most like to have?" (A new game/A new book). Item 14 was related to self-concept about reading: "What kind of reader are you?" (I am a very good reader/I am an OK reader/I am NOT a very good reader).

#### *Differences in the responses of boys and girls*

We used repeated measures ANOVA to determine if girls and boys experienced differential change between the two points in time for the motivation survey. There was a significant between-subjects effect indicating

**Table 1. Descriptive Statistics for the Pre- and Post-Reading Recovery Motivation Survey Items**

Item	Pre-Reading Recovery		Post-Reading Recovery		Significance (two-tailed)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1	2.22	.86	2.42	.76	$p < .02^*$
2	2.50	.73	2.59	.70	$p < .20$
3	1.41	.49	1.58	.50	$p < .00^*$
4	2.81	1.10	2.88	1.10	$p < .57$
5	3.12	.94	3.21	.90	$p < .39$
6	2.15	.89	2.21	.90	$p < .59$
7	2.77	.54	2.81	.49	$p < .77$
8	1.82	.80	1.75	.77	$p < .20$
9	1.80	.80	1.77	.80	$p < .77$
10	1.47	.50	1.57	.50	$p < .07$
11	1.82	.38	1.79	.41	$p < .43$
12	2.58	.64	2.73	.56	$p < .06$
13	2.32	.66	2.50	.66	$p < .11$
14	2.23	.67	2.58	.55	$p < .00^*$
15	2.97	1.10	3.18	1.00	$p < .08$

\* $p < .02$

that reading motivation scores (combined across the two time points) were significantly different for girls and boys,  $F(1, 111) = 20.59$ ,  $p < .001$ , with girls having a reading motivation score of 33.66 ( $SD = .55$ ) and boys having a reading motivation score of 33.34 ( $SD = 0.48$ ). While girls' survey responses were higher than boys' responses both before and after Reading Recovery, there was an increase in positive responses for both genders, as shown by the significant within-subjects factor,  $F(1,111) = 10.89$ ,  $p < .001$ . However, there was not a significant gender by time (pre and post) interaction,  $F(1,111) = .001$ ,  $p < .979$ , indicating that both males and females improved at similar rates. These findings suggest there is a difference between boys' and girls' motivation scores (combined) both before and after Reading Recovery instruction, but not a difference between the two groups in the amount of motivational change during the series of lessons.

## Discussion

While this study determined that there were significant positive changes in students' motivation during their Reading Recovery series of lessons, there are a few limitations to the study which lead us to stress the need for further investigations. Recent research has made it increasingly clear that homes, schools, and classrooms influence learner motivation (Guthrie & Cox, 2001; Urdan & Schoenfelder, 2006; Wigfield, Guthrie, Tonks, & Perencevich, 2004). However, there are few descriptive studies related to motivation and young literacy learners. Recently, researchers have begun to bridge this gap by focusing on social contexts within school (Guthrie et al., 2006; Guthrie & Humen-

ick, 2004) and home (Baker & Scher, 2002; Baker, Scher, & Mackler, 1997). It is not surprising that motivation to read is related to reading enjoyment since "social contexts mediate the variables that predict behaviors" (Guthrie & Cox, 2001, p. 128). While the questionnaire used in this study attempted to tap into situational contexts that influence motivation to read, more research that closely examines specifics of learning contexts, as well as home and school connections to motivation is needed, particularly in relation to at-risk learners. A one-to-one intervention such as Reading Recovery would allow such close examination of contexts and constructs that influence motivation.

An additional limitation of this study is that it relied on student self-report with questionnaires administered by Reading Recovery teachers rather than a researcher. While it is quite common to use questionnaires to study motivation in literacy contexts, there are potential concerns about ways that young children might interpret questions. Young children's interpretations depend upon their language and vocabulary knowledge as it relates to the questions. It is also feasible that the teacher-child relationship influenced responses.

Some recent research has noted that student's self-perceptions and competence beliefs vary within different domains or learning contexts. It is important to note that this investigation does not attempt to sort differing perspectives as a result of classroom and intervention environments. The results of this investigation can be generalized only to children who are in the early stages of learning to read. It is also important to recognize that

reading motivation could be related to additional factors not included in the survey. Finally, our research design does not allow us to attribute changes directly to the Reading Recovery intervention. Further research that includes a comparison group without the Reading Recovery intervention is needed in order to determine if there is a causal connection. Certainly, this study is more closely tied to entry and exit points in Reading Recovery than previous motivational studies of the intervention (Cohen et al., 1989; Townsend et al., 2001; Wade & Moore, 1998). Therefore, we can confidently state that immediately after the intervention, the Reading Recovery children's motivational responses were significantly more positive than prior to the intervention.

### *Gender differences in response*

Earlier research indicated that girls typically have more-positive attitudes toward reading (McKenna, Kear, & Ellsworth, 1995), but more recent research has suggested that gender differences vary depending on the motivational constructs studied. For example, there is little difference in the construct of self-efficacy among male and female elementary students (Schunk & Pajares, 2002). However, there are clear gender differences in relation to beliefs about competency, but they are task specific (Wigfield et al., 1997; Wigfield & Eccles, 2002) and may be related to stereotype influences (Eccles, 1987; Wigfield et al.) that emerge early. For example, children's beliefs about competence and valuing of tasks were found to be gender specific; boys' task values were higher in relation to math and sports, girls', in reading and instrumental music (Wigfield et al.).



Marinak & Gambrell (2010) found no differences in boys and girls in relation to self-concept but found that valuing of reading was less present in boys than girls. These findings are all related to the general elementary school population. Prior to the current investigation, the only Reading Recovery study that included gender was the Townsend et al. (2001) investigation. They found that more boys than girls participated in Reading Recovery, girls had higher standardized test scores and were rated by their teachers as higher in motivation, but there were no significant differences in the students on motivational measures.

Somewhat differently, within our investigation, there was a significant between-subjects effect indicating that reading motivation scores (combined across the two time points) were significantly different for girls and boys with girls having a higher reading motivation score. However, while girls' survey responses were higher than boys' responses overall, there was a significant increase in positive responses for both genders at the end of the intervention but no significant gender differences at each of the points in time measure separately (pre and post). The increase in positive responses at the end of the intervention are indicative of a change in motivational perspective as well as a different developmental trajectory than has been found in some studies (Miller, 1987; Stipek, 1981; Wigfield et al., 1997).

#### *Motivation responses of Reading Recovery children—change over time*

Results of several early literacy investigations suggest that, while reading skill continues to improve after first grade, motivation does not continue

to increase, but actually diminishes (McKenna et al., 1995; Miller, 1987; Stipek, 1981; Wigfield et al., 1997). In contrast, Mazzone et al. (1999) found that first-grade students' reading motivation increased across the school year along with the initial acquisition of reading skills but was not linked to the age of the children. Their findings suggest a strong effect of schooling on children's reading motivation during the first-grade year; our results concur. These

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### Across studies of early literacy, and particularly Reading Recovery, results further emphasize the need to clarify the role that motivation plays in early literacy development.

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results, along with several other intervention studies (Chapman et al., 2000; Morgan et al., 2008; Wilson & Trainin, 2007), indicate a connection between literacy development and development of reading motivation, particularly for students initially identified as at-risk readers.

Across studies of early literacy, and particularly Reading Recovery, results further emphasize the need to clarify the role that motivation plays in early literacy development. The current study found an increase in reading motivation for first graders at a time when these learners were acquiring initial reading competence. Given the earlier discussion of perceptions of self and literacy achievement becom-

ing so solidly established by mid-point in first grade (Chapman et al., 2000; Morgan et al., 2008; Wilson & Trainin, 2007), it is important to note that these students were at-risk readers entering the Reading Recovery intervention at *mid-year*. For students who are not successful in learning to read, self-concept is typically lower than it is for skilled readers (Morgan & Fuchs, 2007; Morgan et al.). During the Reading Recovery intervention, these students gained both literacy skill and increased motivation for reading.

Our results differ from those of Morgan et al. (2008) who did not find an increase in reading motivation for students who received a reading intervention, despite an increase in reading skills. Negative "Matthew effects" (Stanovich, 1986, p. 360), the learning and motivational issues that result from struggling with reading problems, were halted. Likewise, in Cohen et al. (1989) and Wade and Moore (1998), even several years later, Reading Recovery students' motivation and self-concepts were positive.

Why might this be? While our research does not directly represent explanatory findings, numerous qualitative studies of Reading Recovery suggest that the carefully scaffolded, individually designed instruction within this one-to-one collaborative setting brings about teacher-child attunement, resulting in increased literacy understandings while also enhancing the learner's views of self and learning (Fullerton, 2001; Lyons, 2003). In turn, the internal states which underlie motivation move the learner to increasingly activate and self-regulate their own strategic processes. Such positive

instantiations, coupled with teacher standby support, continue a learning cycle that positively impacts competence beliefs and expectancies for success (Dweck, 2000; Eccles et al., 1984; Eccles et al., 1993; Wigfield & Eccles, 2000; Wigfield et al., 1997). In other words, the child's theory of self becomes, "I can do this!"

## Implications and Future Directions

Views of self are inexorably linked to views of task, thus, the reciprocal relationship of valuing tasks and achievement motivation. ("I like to read—I see myself as a reader" and vice-versa). As motivation is related to overall academic success (Bandura, 1997; Deci et al., 1991) and more specifically, literacy performance (Gambrell & Morrow, 1996; Guthrie & Wigfield, 2000; Morgan & Fuchs, 2007; Schunk & Zimmerman, 1997; Wigfield & Guthrie, 1997; Wilson & Trainin, 2007), there is a need for further study of the development of motivation in at-risk readers. Foundational to the theoretical frame of our investigation, is the view that socio-cultural or sociocognitive influences must be considered in order to understand motivation for literacy learning (Oldfather, 2002; Turner & Patrick, 2008). Specifically, in the context of interventions for struggling readers, more research is needed on the development of motivation in order to explore the influence of teacher-child interactions, teacher-student ratio (e.g., one-to-one versus small-group interventions), relationship of challenge and text, and types of literacy activities (i.e., isolated skills practice, word learning, reading continuous text, writing authentic messages). Clearly, many of these aspects of

instruction are especially relevant to the Reading Recovery intervention. Moreover, larger studies that compare Reading Recovery students who receive the intervention immediately to those who must wait until second or later entry, as well as studies that compare the motivation of children who received Reading Recovery to those who do not, are needed. Motivation in Reading Recovery has received limited research attention across decades of implementation; exploring the relationship more deeply may provide further insights into instructional and implementation factors.

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## Appendix A — Me and My Reading

### PRACTICE

1. What grade are you in?	1 First Grade	2 Second Grade		
2. I am a	1 Girl	2 Boy		
3. How often would you like for your teacher to read stories out loud to the class?	1 Every day	2 Almost every day	3 Not much	
4. Do you like to read books <b>all by yourself</b> ?	1 No	2 It's OK	3 Not much	
5. Which would you <b>most</b> like to have?	1 A new game	2 A new book		
6. Do you tell your friends about books and stories you read?	1 Never	2 Almost Never	3 Sometimes	4 A lot
7. How do you feel when <b>you</b> read out loud to someone?	1 Happy	2 Embarrassed	3 OK	4 Sad
8. Do you like to read during your <b>free time</b> ?	1 Yes!	2 It's OK.	3 I would do something else.	
9. How would you feel if someone gave you a book for a present?	1 Disappointed	2 Sort of happy	3 Happy	
10. Does someone in your family read to you before you go to bed?	1 Almost every night	2 Sometimes	3 No	
11. Do you read <b>by yourself</b> before you go to bed?	1 Almost every night	2 Sometimes	3 No	
12. Which would you rather do?	1 Clean your room	2 Read a book		
13. How do you feel when you are in a group talking about a story?	1 I <b>like</b> to talk about my ideas.	2 I do <b>not</b> like to talk about my ideas.		
14. Do you take any books home from school to read?	1 Almost never	2 Sometimes	3 Almost every day	
15. Do you read books out loud to someone in your family?	1 Almost every day	2 Sometimes	3 Never	
16. What kind of reader are you?	1 I am a very good reader.	2 I am an OK reader.	3 I am NOT a very good reader.	
17. Learning to read is	1 Really hard	2 Sort of hard	3 Sort of easy	4 Really easy

SOURCE: Children's Reading Motivation Survey (Mazzoni, S. A., Gambrell, L. B., & Korkeamaki, R. L., 1999)