

Long-Term Stability of Children's Attitudes Toward Reading

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ABSTRACT The long-term stability of the construct of children's attitudes toward reading was examined. One hundred eighty-nine students in Grades 1–4 completed two administrations of the Elementary Reading Attitude Survey (ERAS) following a 3-year interval. Initially, reading attitudes were relatively positive and comparable to the standardization sample for both the recreational and academic subscales of the ERAS. Following the 3 years, however, reading attitudes dropped significantly for both recreational and academic scores. Nonsignificant grade differences were observed, but girls consistently expressed more positive attitudes toward recreational reading than did boys. Similarly, girls also demonstrated greater stability in reading attitudes than boys, based on higher correlations between first and second administrations of the ERAS. Implications for the classroom and directions for future research are provided.

The improvement of children's reading remains one of the most important challenges for contemporary educators. Although the focus of most current educational reform has been directed toward cognitive aspects of reading (Greaney, 1991), researchers are beginning to examine ways in which affective factors impact the subsequent development of reading skills (Gentle & McMillan, 1987; Lipson & Wixson, 1986; Paris, Wasik, & Turner, 1991; Williams, 1994).

Prominent among the affective factors that impact reading achievement is the child's attitude toward reading. An attitude is a "predisposition . . . to react specifically towards an object, situation, or value [which is] usually accompanied by feelings and emotions" (Good, 1973, p. 49). Thus, attitude toward reading has been defined by Smith (1990) "as a state of mind, accompanied by feelings and emotions, that make reading more or less probable" (p. 215).

The development of positive attitudes toward reading has been associated with sustained reading throughout the lifespan (Cullinan, 1987). Although students' attitudes toward reading are commonly identified by teachers as important (Quinn & Jadav, 1987), little time is spent developing positive reading attitudes in public schools (Greaney, 1991; Heathington & Alexander, 1984). Similarly, teacher ratings of student attitudes toward reading do not always match attitudes actually held by their students and are often influenced more by how well the student reads (Swanson, 1985).

Particularly at the early stages of reading instruction, the causal relationship between reading attitude and achievement is unclear. Measures of reading attitude and achievement yield only moderate correlations, typically ranging from .20 to .40 (Deck & Barnette, 1976; Roettger, Szymczuk, & Millard, 1979; Swanson, 1982). Whereas many researchers hypothesize that positive student attitudes toward reading contribute to higher reading achievement (Bettelheim & Zelan, 1981), others argue that the causal relationship flows in the opposite direction—from achievement to attitude (Quinn & Jadav, 1987). This debate is not unique to reading; similar arguments concerning the attitude-achievement relationship occur for mathematics (Reynolds & Walberg, 1992a) and science (Reynolds & Walberg, 1992b). Although both positions possess some merit, it is probably more tenable to consider attitude and achievement as exerting a bidirectional influence. This view is exemplified by Stanovich's (1986) theory of reciprocal causation, which weaves cognitive and affective components together to better conceptualize the development of individual differences in reading ability over time.

Regardless of the direction of causality, it is known that good readers generally possess more positive attitudes toward reading than poor readers do (Wigfield & Asher, 1984). Not all poor readers dislike reading, however, and many maintain positive reading attitudes despite limited skills and continuing frustration (Russ, 1989). Empirical studies have also found that girls tend to have more favorable reading attitudes than do boys (Downing & Che, 1982), and younger children tend to exhibit more positive attitudes toward reading than do older children (Alexander & Filler, 1976; Barnett & Irwin, 1994; Guthrie & Greaney, 1991; Mikulecky, 1976; Smith, 1990; Swanson, 1985), although the exact developmental onset of these trends remains unclear. Equally unclear are possible mitigating factors that may buffer or protect students who are at risk for future reading difficulties, as well as specific intervention strategies that may reverse this negative developmental progression. A more precise delineation of individual stu-

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dent characteristics and their interactive relationship with reading attitude and achievement remains to be discovered.

One of the limitations of previous reading attitude research has been an overreliance upon cross-sectional designs. Research methodology that uses a cross-sectional design is unable to uncover long-term, developmental changes. Similarly, previous research has tended to consider student attitudes toward reading as a unitary construct (Barnett & Irwin, 1994) and has failed to consider that reading attitude may be multidimensional, with factors reciprocally interacting across environments and developmental levels (Lehr, 1982).

In this study we examined the longitudinal stability of reading attitudes in a large sample of elementary-aged students, followed over 3 years. Our purpose was to identify distinct developmental trends in reading attitudes on a multidimensional measure of reading attitude. In this regard, we selected the Elementary Reading Attitude Survey (ERAS; McKenna & Kear, 1990) because it provides scores for both recreational and academic reading attitudes. In addition, we also examined gender differences in reading attitude to determine if the finding of negative reading attitudes for boys, previously reported in cross-sectional research, could be replicated in a longitudinal design.

Method

Participants

Three hundred nineteen students enrolled in Grades 1–4 in a southwestern, suburban school district constituted the initial participant pool. Because of natural attrition factors, 190 students (83 boys, 107 girls) continued to be enrolled at the school following the 3-year interval of the study, and they served as participants. At the time of the initial fall semester testing, there were 38 students in Grade 7, 70 students in Grade 2, 44 students in Grade 3, and 38 students in Grade 4. This cohort subsequently advanced to Grades 3–6, respectively, at the time of the second administration of the ERAS (spring semester of the school year, 3 years later). Each year, students were randomly assigned to teachers in 1 of 14 classrooms. Ethnic status, as reported in school records, was 94% White, 4% Hispanic, 1% Black, and 1% Asian. The socioeconomic level of the school was designated middle class based on the percentage of students (10%) participating in free or reduced-cost lunch programs (Peng, Wang, & Walberg, 1992).

Instrument

The Elementary Reading Attitude Survey (ERAS; McKenna & Kear, 1990) is a 20-item questionnaire that asks students to rate their attitudes toward reading. Each item presents a brief, simply worded statement about reading followed by four pictures of the comic strip character Garfield the Cat in varying pictorial poses. Percentile ranks

are obtained for two component subscales: recreational reading attitude and academic reading attitude. Recreation items focus on reading for fun outside the school setting, and the academic subscale examines the school environment: reading aloud in class; reading workbooks and worksheets; and reading schoolbooks. A total reading attitude percentile rank can also be computed as an additive composite of the recreational and academic scores.

The ERAS was normed on over 18,000 students in Grades 1–6, across 38 states. Internal consistency of the scale is adequate (.74 – .89) (Allen, Cipielewski & Stanovich, 1992; McKenna & Kear, 1990), and a factor analysis of the normative sample provides evidence supportive of two discrete subscales of reading attitude. Convergent and divergent validity with other measures of reading attitude, book reading, activity preferences, and television viewing has been demonstrated as well (Estes, Estes, Richards, & Roettger, 1981; Marjoribanks, 1992; Stanovich, 1993).

Procedure

Students completed the ERAS in the fall of the 1990–91 school year and again in the spring of the 1992–93 school year. The ERAS was administered to intact classrooms with teachers' reading the directions aloud while students read along silently. Following several practice items, students completed the 20 items of the ERAS.

Completed ERAS forms were scored according to standardized instructions provided by McKenna and Kear (1990). We used raw scores in all subsequent data analyses. The scores were converted to standard scores ($M = 100$, $SD = 15$) by a computer program (Watkins, 1992) for descriptive purposes.

Results

A preliminary analysis examined factors relating to subject attrition. A series of three independent t tests examined possible differences in reading attitudes between the present participant pool and students who had moved out of the attendance area. Results of these analyses all suggested nonsignificant differences in reading attitudes between students who remained at the school for the 3-year period and those who completed the initial ERAS administration but were not at the school following the 3-year interval (Recreational $t = -.40$, $p > .01$; Academic $t = -1.51$, $p > .01$; Total $t = -1.11$, $p > .01$).

Standard scores for the total sample, for both administrations of the ERAS, are reported in Table 1. Scores from the initial ERAS administration were similar to the standardization sample; means for all scales were near 100, and standard deviations near 15. Score ranges varied approximately two standard deviations above and below the standard score means. Scores from the second ERAS administration were approximately 3 points lower for both subscales and for the total score. Ranges and standard devi-

ations were similar to the first administration and to the standardization sample.

Correlation coefficients for the total sample and for boys and girls for both administrations of the ERAS are presented in Table 2. Most correlations exceeded the .01 significance level. Intersubscale correlations were .62 for both test and retest administrations. These results are similar to the intersubscale correlation of .64 reported for the normative sample. The long-term stability coefficient for the total ERAS scale, following a 3-year interval, was .26. A series of Fisher *r* to *z* transformations indicated significant gender differences across all test-retest correlations ($p > .01$); girls consistently demonstrated greater stability in reading attitudes than boys did, based on higher correlations between first and second administrations of the ERAS.

A series of two 2×4 (Gender \times Grade) analyses of variance were performed on ERAS recreational and academic scores; scores for both administrations served as repeated

measures (Huberty & Morris, 1989). Significant differences between first and second administrations of the ERAS were found for both the recreational, $F(1, 182) = 26.90, p < .001$, and academic scales, $F(1, 182) = 21.59, p < .001$. These differences reflected significant declines in recreational and academic reading attitudes by all students over the 3-year interval between ERAS administrations. In addition, significant gender differences were found only for the recreational subscale, $F(1, 182) = 26.92, p < .0001$; girls evidenced significantly more positive attitudes than boys did. ERAS descriptive statistics for boys and girls are presented in Table 3.

Finally, we obtained nonsignificant grade effects for both scales; however, we found a statistically significant gender-by-grade interaction for the recreational scale, $F(3, 182) = 5.42, p < .001$. On the recreational scale, girls demonstrated more positive reading attitudes than did boys and maintained these differences at all grade levels except one. Only one cohort (students who began as second-grade students) showed initial gender similarities in their attitudes toward recreational reading and maintained this similarity throughout the 3-year interval.

Discussion

In the present study, children's attitudes about reading exhibited a consistent decline across the elementary school years. This somewhat alarming, but not unexpected, trend occurred for attitudes expressed about both academic and recreational reading. Across all grade levels, students demonstrated initial academic and recreational reading attitudes similar to the standardization sample, but 3 years later their attitudes toward reading were much less positive. The

Table 1.—Standard Score Means, Standard Deviations, and Ranges of the Elementary Reading Attitude Survey for the Total Sample

Variable	<i>M</i>	<i>SD</i>	Minimum	Maximum
First administration				
Recreational	100.80	15.10	50	127
Academic	99.41	15.47	58	129
Total	100.09	15.08	50	131
Second administration				
Recreational	96.89	14.54	42	129
Academic	97.56	14.31	67	136
Total	96.89	14.45	56	136

Table 2.—Test-Retest Correlation for the Elementary Reading Attitude Survey for the Total Sample and by Gender

Variable	Academic test	Total test	Recreational retest	Academic retest	Total retest
Recreational (test)	.62*	.88*	.28*	.09	.21*
Boys	.61*	.88*	.12	-.03	.05
Girls	.61*	.87*	.36*	.17	.29*
Academic (test)		.92*	.24*	.22*	.25*
Boys		.91*	.05	.14	.10
Girls		.92*	.34*	.27*	.34*
Total (test)			.29*	.18*	.26*
Boys			.02	.07	.09
Girls			.39*	.26*	.35*
Recreational (retest)				.62*	.90*
Boys				.64*	.91*
Girls				.63*	.89*
Academic (retest)					.90*
Boys					.90*
Girls					.91*

* $p < .01$.

Table 3.—Raw Score Means, Standard Deviations, and Ranges of the Elementary Reading Attitude Survey, by Gender

Variable	<i>M</i>	<i>SD</i>	Minimum	Maximum
<i>First administration</i>				
Recreational				
Boys	29.13	6.21	10	40
Girls	31.57	5.05	18	40
Academic				
Boys	27.10	7.03	10	40
Girls	28.96	6.29	14	40
Total				
Boys	56.23	11.88	20	78
Girls	60.53	10.13	38	80
<i>Second administration</i>				
Recreational				
Boys	26.18	5.91	11	40
Girls	29.13	5.22	18	40
Academic				
Boys	25.07	5.78	13	40
Girls	25.48	6.04	12	40
Total				
Boys	51.28	10.66	24	80
Girls	54.61	10.14	31	80

results from the present longitudinal design are consistent with previous cross-sectional research suggestive of long-term developmental declines in children's reading attitudes (Barnett & Irwin, 1994; Guthrie & Greaney, 1991; Mikulecky, 1976; Smith, 1990; Swanson, 1985).

It appears also that boys and girls are differentially affected over time with regard to specific reading attitudes. Beginning in first grade and continuing 3 years later, the girls in this study consistently expressed more positive attitudes toward recreational reading than did boys. Whereas previous research has failed to separate attitudinal components, results of the present study are consistent with prior results indicating that girls tend to have more favorable attitudes toward reading than boys do (Greaney & Hegarty, 1987; Guthrie & Greaney, 1991; Smith, 1990), but suggest that these differences are most pronounced in reading activities that occur outside of the classroom.

In the present study, the single exception to this trend occurred for one cohort of students in which girls and boys had similar recreational reading attitudes throughout the 3-year interval. This finding is most likely reflective of an atypical group of students. In this particular sample of students, attitudinal similarity was primarily the result of improved reading attitudes by the boys. Although research has shown that teachers, through the use of specific classroom techniques (Lehr, 1982; Wigfield & Asher, 1984), can influence the attitudes that their students develop, no unique instructional method or reading program could be identified that was differentially initiated for the boys and girls in this study. A similar artifact was observed by Parker and Paradis

(1986), who noted a brief increase in student reading attitudes between Grades 4 and 5.

This study augments the growing body of evidence regarding young boys' negative reading attitudes. Boys are identified as problem readers more frequently than girls (Tittle, 1986) and, as a group, demonstrate lower reading achievement (Bank, Biddle, & Good, 1980). Similarly, boys are placed into learning disability programs at a ratio of more than 3:1 (Taylor, 1988), even though there is little evidence that such programs accelerate their achievement (Allington, 1994; Gartner & Lipsky, 1987). Beyond the reading arena, boys express greater alienation from school (Trusty & Dooley-Dickey, 1993), exhibit a higher school dropout rate (Rumberger, 1987), and dominate all categories of emotional maladjustment (McDermott, 1996). Although the reading attitudes of girls, should not be neglected, it does appear that additional attention should be directed toward boys who begin school with poorer attitudes toward reading and subsequently progress through school without showing any sustained improvement (National Center for Education Statistics, 1992).

Reading educators should consider two possible approaches that may alter the reading attitudes of both boys and girls. First, specific classroom activities and instructional methods should be considered when attempting to improve attitudes toward reading. Barnett and Irwin (1994) found a strong relationship between student attitudes and classroom activities. Their research demonstrated that reading instruction that relied on basal readers and worksheets negatively affected student attitudes, whereas instructional methods that avoided such practices positively affected reading attitudes. Qualitatively, research by Palmer, Codling, and Gambrell (1994) suggests that students' motivation to read can be influenced by four variables: prior experiences with books, social interactions about books, book access, and book choice. Similarly, an instructional framework that supports the sharing of books and reading experiences with others (Guthrie, Schafer, Wang, & Afflerbach, 1993) and the ready availability of classroom reading materials (Guthrie & Greaney, 1991) have been found to be supportive of positive reading attitudes.

Second, children's academic attitudes have also been shown to be related to home literacy practices occurring before formal school entry (Scarborough & Dobrich, 1994) and to parental attitudes toward reading (Beech, 1990). These results suggest that schools must involve parents in this endeavor to achieve maximal positive effects. This emphasis may prove to be one strategy particularly rewarding for young boys who remain most at-risk for future reading difficulties.

Future research should be targeted toward classroom and home activities that enhance academic attitudes. It will also be important to examine the long-term predictability of reading attitudes as well as their reciprocal relationship with preexisting reading skills in the prediction of future levels of reading achievement. A particular focus should

examine the possible differential predictability for boys and girls as well as the impact of examining recreational reading attitudes separate from academic reading attitudes. The development of good reading attitudes in young children is clearly essential, and additional research that examines specific interventions designed at promoting and subsequently maintaining these positive reading attitudes, particularly in boys, will be especially beneficial.

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