

A Longitudinal Investigation of Reading Attitude Development from Childhood to Adulthood

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ABSTRACT Few studies exist regarding the development of reading attitude from childhood to adulthood. These studies consist of cross-sectional designs that mask true developmental changes. The present study examined longitudinally the development of reading attitudes among a group of 84 individuals, many of whom were followed over nearly 40 years. Reading attitude measures were given in (a) 1st, 6th, 9th, and 12th grades, (b) 5 years following high school graduation, and (c) either 21 or 26 years following high school graduation. A multiple regression analysis was used to determine which of the childhood and early adult attitude measures best predicts adult attitude. The results showed that the early adult measure accounted for one third of the variance on the adult attitude measure. Although childhood measures seem to be poor predictors of adult attitude, there was evidence of stability in reading attitude over time.

The purpose of the present study was to examine the stability of reading attitude from early childhood to the middle-adult years. The data reported here were gathered in a longitudinal study occurring over 4 decades. Although attitude is assumed to be an important factor in reading (Alexander & Filler, 1976), little research has examined the development of such attitudes from childhood into the adult years.

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). Reading attitude is defined as a state of mind, accompanied by feelings and emotions, that makes reading more or less probable (Smith, in press). Although adults' attitudes toward reading likely result from early reading experiences, both at home and at school, little empirical evidence supports this assumption.

Education professionals widely believed that the development of positive attitudes toward reading in the formative years of schooling will create individuals who are lifelong readers (Cullinan, 1987). A confusing picture

emerges, however, when this conviction is viewed together with the results of previous studies examining the development of children's reading attitudes throughout the school years. A general decline in positive attitude, continuing throughout the school years, has been found in longitudinal studies (Bullen, 1972; Mikulecky, 1976). Bullen, for example, found a decline in reading attitude from Grades 1 to 3. Mikulecky found a decline in reading attitude from 7th to 12th grades. Parker and Paradis (1986), on the other hand, found an increase in reading attitude, but only from Grades 4 to 5.

The few studies of adult readers have consisted of cross-sectional designs comparing the reading attitudes of one group of adults with another (Dwyer & Joy, 1980). Cross-sectional studies suffer from cohort effects present when different age groups are compared (Schaie, 1965). That is, attitudinal differences found among different age groups may be due to historical (e.g., curricula innovations) or generational factors (e.g., younger cohorts are better educated) that may differentially affect one age group but not another. Such influences may mask true developmental changes in reading attitude.

Dwyer and Joy (1980), for example, examined reading attitude development across the life span using a cross-sectional design. The authors compared six groups of children and adults across three ages: two groups of 6th graders (1971, 1978 cohorts), two groups of university students (remedial students and freshmen); young adults of the same age as the university students but who had never attended college; and adults aged 60 years and older.

The complexity of making inferences about developmental changes in attitude was apparent in this study. Although there were no differences among the children and

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old adults (suggesting stability in attitude over the life span), significant differences existed among the older adults and the freshmen and the noncollege adults. The noncollege adults displayed the least positive attitudes, and the older adult group had the most positive attitudes. This result suggests that there is a positive change in attitude from young to old adulthood. There was, however, no indication of educational differences between these two groups of adults, a factor likely to account for much of the variance. Other factors that may affect reading attitude development include occupational reading demands, reading a variety of different text materials and text forms over the life span, and having time for reading.

This article represents only one dimension of a larger study that examined the development of reading skills, metacognitive reading abilities, and reading attitudes from childhood to adulthood (Smith, 1988). I focus here on changes in reading attitude from early childhood to middle adulthood and the results from an assessment of reading attitude in adulthood. Because longitudinal studies of reading development are relatively rare in the literature (Smith, 1988) and almost exclusively cover only the childhood years (Durkin, 1966; Newman, 1978, 1980; Sutton, 1969; Tobin & Pikulski, 1988), this study provides a rare glimpse of developments in the affective domain of reading from childhood to adulthood.

Method

Sample

Eighty-four adults (31 men and 53 women) ranging in age from 35 to 44 (M age = 39.4) participated in this study. All of the subjects were White, of middle-class socioeconomic status (based on occupation), and represented a wide range of educational attainment levels (from high school dropout to postgraduate degree) and many occupations. All of the subjects had participated in two longitudinal studies (Kreitlow, 1962, 1966) when they were children. Kreitlow's research was conducted in 10 Wisconsin communities from 1949 to 1966. These studies included data on the effect of school reorganization on academic achievement and involved 1,596 children. Among the dependent variables in Kreitlow's research were IQ, reading achievement and attitude, and extent of participation in extracurricular activities. Only the reading attitude data were used in the present investigation.

I recruited the subjects in this study from the Kreitlow (1962, 1966) samples to participate in a study of reading skills development (Smith, 1988). The subjects represented two cohorts of students (1949–1961 and 1954–1966 school attendance dates). I located 409 of the 1,596 individuals in the Kreitlow studies and asked them to participate in research concerned with their reading abilities and practices. Eighty-four persons agreed to participate in the study. A comparison of this subsample with the

Kreitlow (1962, 1966) samples on several cognitive measures (i.e., IQ and reading achievement) demonstrated that the adult sample was a superior group. This mortality effect, in which less able subjects drop out of further research, is an inherent problem in longitudinal studies (Schaie, 1965).

Instruments

The subjects in this study were given a 40-item questionnaire assessing reading attitude, along with several questionnaires evaluating reading habits and perceptions of reading. These latter questionnaires and the results from this part of the survey are described in Smith (1988). The Adult Survey of Reading Attitudes (ASRA) was developed for this study and was adapted from a questionnaire created by Wallbrown, Brown, and Engin (1977). The Wallbrown et al. instrument was developed for assessing children's reading attitudes. After item revisions were made, I found that the ASRA was a more relevant and accurate assessment of adults' reading attitudes than the measures used in the Kreitlow (1962, 1966) studies because it assesses multiple dimensions of reading attitude.

Subjects responded to statements about reading along a 5-point, Likert-type scale reflecting *strong agreement* (5) to *strong disagreement* (1). Whereas the Wallbrown et al. measure contains 92 items representing eight subscales, the ASRA contains 40 items drawn from five of the subscales: (a) enjoyment experienced while reading, (b) anxiety experienced while reading or thinking about having to read, (c) external and internal reinforcement received from reading, (d) difficulty encountered while reading; and (e) different types of reading modes that the reader uses. I modified several items from the original Wallbrown et al. survey to reflect adults' reading situations and experiences (e.g., "Reading is one of my best subjects" was changed to "Reading is one of my favorite activities").

I conducted a pilot test of the ASRA using 25 undergraduate and graduate students and 16 nonfaculty employees at the University of Wisconsin–Madison. This testing revealed that the reliability of the ASRA is high (Cronbach's $\alpha = .93$). The split-half correlation was equal to .86, with a Spearman-Brown coefficient equal to .93. The stability coefficient of the ASRA, using a subsample of 13 subjects from the current study, was .87, for an interval of 6 weeks.

A subsequent factor analysis on the ASRA with varimax rotation and a principle components extraction method showed that the 40 items were grouped around five factors: (a) reading activity and enjoyment (16 items); (b) reading anxiety and difficulty (11 items); (c) reading modes (6 items); (d) social reinforcement (6 items); and (e) a new factor, tutoring (2 items), which is concerned with assisting others in reading. One item ("there are better ways to learn new things than by read-

ing a book'') was shared by factors No. 1 and No. 3.

Childhood reading attitude was assessed in Kreitlow's (1962, 1966) research at four different times (Grades 1, 6, 9, and 12) with a measure that he developed—The Reading Attitude Scale. The scale contained 12 forced-choice items (e.g., respondent indicates a preference between two activities: "Roller skate" vs. "Read a comic book"). No measurement characteristics (reliability or validity) for this instrument were reported by Kreitlow. Stability coefficients were determined by the present investigator, using only the childhood attitude scores for the subjects in this study. These coefficients equaled .83 (6th to 9th grades), .64 (9th to 12th grades), and .60 (6th to 12th grades).

I drew the sixth assessment of reading attitude (young adulthood) from a questionnaire that assessed the subjects' attitudes toward adult educational activities (e.g., college attendance and participation) in two earlier dissertation studies (Spencer, 1974; Waldron, 1967). A typical item on this survey stated: "I look forward to a free evening so that I can read a good book." Subjects responded on a scale from *strongly agree* (4) to *strongly disagree* (1). There were 9 items on this scale, referred to as the Young Adult Reading Attitude (YARA) measure. The subjects completed this questionnaire 5 years after high school graduation. A stability coefficient, which I determined with a sample of 53 university students, equaled .90 for an interval of 6 weeks.

The question of interest was, Are the childhood measures of reading attitude used by Kreitlow predictive of adult reading attitude as assessed by the ASRA? If the early childhood measures proved to be good predictors of adult reading attitude, this finding would provide evidence of the importance of establishing positive attitudes in the early school years, as well as proof that reading attitude is a stable dimension of reading.

Results

The two samples from the Kreitlow (1962, 1966) studies were only 5 years apart (1949 and 1954 school entry dates), so I combined them for all data analyses. I assumed that any cohort effects reflected in the data would be insubstantial. There was no indication in the Kreitlow studies that either sample was given particular and different activities to improve reading attitudes. The two groups were in school during 1949 to 1961 and 1954 to 1966, respectively. The 1949 to 1966 period had no significant innovations in reading curricula among the Wisconsin schools represented in the Kreitlow studies (Kreitlow, 1966).

I performed a stepwise multiple-regression analysis with the ASRA as the dependent variable and the four childhood measures and the YARA measure as predictor variables. The alpha level was equal to .05. This analysis revealed that the YARA measure and the 9th-grade as-

essment accounted for the largest portion of the variance on the ASRA (47%). The YARA measure accounted for 33% of the variance (see Table 1).

The correlation matrix (see Table 2) revealed that all but two of the correlations are significant. These two correlations (between 1st and 12th grades and 1st grade and YARA) barely miss the .05 level of significance. The 1st-, 6th-, and 9th-grade measures were strongly correlated with one another and only weakly correlated with the 12th grade, young adult, and adult measures. These latter measures were, however, moderately correlated with one another.

The later childhood measures (i.e., 9th and 12th grades) and the young adult measure of reading attitude (YARA) were stronger predictors of adult reading attitude (ASRA) than were the early childhood measures (i.e., Grades 1 and 6). An examination of the last two columns in Table 2 (YARA and ASRA) shows a modest increase in the strength of the relationships over time between the childhood and adult measures.

The ASRA data revealed interesting findings concerning the reading attitudes of this adult sample. ASRA scores could range from 40 (poor, or negative, attitude) to 200 (good, or positive, attitude). The mean score for the 84 adults was 143.57 (SD = 23.57). For purposes of comparison, the mean score on the ASRA equaled 151.25 (SD = 30.16) for a group of 16 nonfaculty employees at the University of Wisconsin. The mean ASRA score for 46 undergraduates at Northern Illinois University equaled 140.55 (SD = 22.81). The University of Wisconsin employee group was a better educated group, on average, than the adults in this study and the Northern Illinois

Table 1.—Results of Stepwise Regression Analysis: Explained Variance of Predictor Variables on Adult Survey of Reading Attitudes

Criterion variable	Order of entry	r ²	Change in r ²	p <
ASRA	YARA	.34	.34	.001
	ATT-9	.47	.13	.001

Note. ASRA = Adult Survey of Reading Attitude; YARA = Young Adult Reading Attitude; ATT-9 = 9th-grade reading attitude.

Table 2.—Correlation Matrix for Childhood and Adult Reading Attitude Measures

	Grade				YARA	ASRA
	1	6	9	12		
1	—	.91**	.81**	.20	.20	.21*
6		—	.83**	.25*	.28*	.25*
9			—	.30**	.24*	.34**
12				—	.39**	.36**
College					—	.58**

*p < .01. **p < .05.

University undergraduates, which may account for the differences among mean attitude scores.

A one-way analysis of variance showed a significant difference among three levels of educational attainment in the present study, $F(2, 81) = 6.82, p < .01$. The levels were high school education ($n = 26$), college credit (with no degree) or technical school training ($n = 30$), and college degree with or without postgraduate experience ($n = 28$). The college graduate group had significantly higher reading attitude scores than did the high school group, $t = 3.81, p < .05$, determined via a Scheffé post hoc contrast. No other contrasts were significant. Means and standard deviations on the ASRA for educational groups are shown in Table 3.

Differences among four identified occupational groups were then examined via a one-way analysis of variance. The four groups were *professional* (e.g., teacher, $n = 32$); *service* (e.g., computer technician, salesperson, $n = 22$); *labor* (skilled and unskilled, including farm workers, machinists, and mechanics, $n = 18$); and *homemaker* ($n = 12$). There was a significant difference in reading attitude among occupational groups, $F(3, 81) = 3.10, p < .05$. Scheffé post hoc contrasts revealed that the professional group had significantly higher ASRA scores than did the labor group, $t = 2.83, p < .05$. The labor group had the lowest mean score for the ASRA. No other contrasts were significant. Means and standard deviations for occupational groups on the ASRA are shown in Table 3.

Sex differences were also found on the ASRA. I conducted a one-way analysis of variance. Females had significantly higher reading attitude scores than did males, $F(1, 78) = 6.99, p < .01$. The mean ASRA scores for males and females were 135.00 (24.83) and 148.36 (21.95), respectively. This finding supports previous research on sex differences in reading attitude among adults (Mikulecky, Shanklin, & Caverly, 1979).

Discussion

The best predictor of adult reading attitude was the young adult measure of reading attitude, based on the results of a step-wise multiple regression analysis. The young adult measure, collected 5 years following the subjects' graduation from high school, accounted for over one third of the variance on the later adult measure. The 9th-grade measure of reading attitude was the next best predictor; combined, the two measures accounted for nearly one half of the total variance (47%). Although childhood attitude measures appear to be poor predictors of adult attitude, there is some evidence of stability in attitude over time.

Little change in reading attitude occurred throughout the school years. The childhood reading attitude mean scores are shown in Table 4. Scores on this measure could range from 0-12. Interestingly, the mean scores were just

below the midpoint (6) on the scale, suggesting that the reading attitudes of these children were, at best, only moderately positive. The mean score for the adult measure (ASRA) was 143.57, which also can be characterized as moderately positive. This broad comparison suggests some degree of stability in reading attitude over time for the sample.

I used different measures to assess reading attitude in adulthood and in childhood, which may account, in part, for the relative inability of the early childhood measures to predict adult attitude. Another explanation, however, is that many discontinuities exist in reading behavior from childhood to adulthood. For example, there is a shift from learning-to-read to reading-to-learn as the child progresses in school (Chall, 1983). Further, reading tasks become more numerous and more complex throughout one's schooling. As the young adult graduates from high school or college and enters a career or vocation, reading tasks required for many jobs become more demanding and complex (Mikulecky & Ehlinger, 1986; Mikulecky & Winchester, 1983). These factors are likely to have some impact on adults' attitudes toward reading.

The cumulative effects of educational experience also account for a positive reading attitude in adulthood. The adults with the most education had the most positive

Table 3.—Means and Standard Deviations for Men and Women and Occupational and Educational Groups on the Adult Survey of Reading Attitudes

Group	<i>n</i>	<i>M</i>	<i>SD</i>
Men	31	135.00	24.83
Women	53	148.36	21.95
High school	26	128.00	30.16
College/technical	30	144.68	26.45
College graduate	28	153.50	19.41
Professional	32	150.56	20.58
Service	22	143.78	22.81
Labor	18	129.94	25.99
Homemaker	12	141.33	25.27

Note. Scores on the ASRA could range from 40 (low, negative) to 200 (high, positive).

Table 4.—Means and Standard Deviations for Reading Attitude Measure

Grade	<i>M</i>	<i>SD</i>
1	5.63	2.08
6	4.77	2.16
9	5.36	2.26
12	5.77	2.08

Note. The maximum score on the attitude measure for each grade level was 12.

reading attitudes. The correlation between adult reading attitude (ASRA) and education equaled .37 ($p < .01$), accounting for 14% of the variance on the ASRA. The effects of occupational status were moderate, but significant. Those persons in higher status occupations (work that is likely to demand more reading) had more positive attitudes about reading. Of course, individuals with more education often have jobs that demand more reading (e.g., teacher, banker, attorney, engineer).

The sample consisted of White, middle-class adults who grew up in rural areas and, many of whom, migrated to larger towns and cities. The generalizability of the present findings to different groups of adults is unwise. Finally, whereas the childhood attitude measure assessed children's preference for reading over other activities, the adult attitude measure (ASRA) was multidimensional. It is likely that somewhat different aspects of attitude were assessed by these measures.

The evidence presented here suggests that reading attitude is a stable construct over time, although early childhood measures of reading attitude are poor predictors of adult attitude. Positive attitudes about reading that are fostered—particularly during the later school years—will remain positive in adulthood. Continued education and occupational choice also affect reading attitude. The findings indicate the importance of developing good reading attitudes among children. More research is needed to determine effective ways to promote positive attitude development during the formative years of elementary school. Longitudinal research is also needed to track the development of reading attitude over the life span.

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