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ABSTRACT

A longitudinal study in 10 rural Wisconsin communities examined the development of reading attitude in subjects from early childhood to middle adulthood. Subjects, 84 white adults ranging in age from 35 to 44 years, represented a wide range of educational attainment levels, a wide range of occupations, and had participated in studies of reading attitude when they were school children. The subjects were given a 40-item questionnaire assessing reading attitude along with several other questionnaires assessing reading habits and perceptions of reading. Results indicated that the subjects had generally positive attitudes toward reading, as they had when they were in school. Results also indicated that continued education and occupational choice have a significant impact on reading attitude and behavior. (Four tables of data, 26 references, and excerpts from assessment instruments are attached.) (RS)

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A LONGITUDINAL STUDY OF THE DEVELOPMENT OF
READING ATTITUDE FROM CHILDHOOD TO ADULTHOOD

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Attitude is an important factor in the development of reading ability (Alexander & Filler, 1976). Adults possess particular attitudes about reading as a way of acquiring knowledge, as a leisure activity, or even as an unpleasant task to be avoided. It is likely that the attitudes that adults have about reading result from their early reading experiences at home and at school. A child who has difficulty learning to read, and experiences academic failure because of this, is likely to carry negative feelings about reading into adulthood. Numerous studies have documented the importance of exposure to good reading models (Greaney, 1986; Hansen, 1969; Hess, Holloway, Price, & Dickson, 1982; Mathews & Waterman, 1983; Sigel & McGillicuddy-Delisi, 1984; Teale, 1982). Children who have parents who are readers and encourage their children to read are likely to have favorable attitudes about reading.

The development of good attitudes toward reading is both an explicit goal of reading instruction and an implicit goal of education in general. 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 here as those feelings directed towards reading activities that contribute to, or are associated with, the good or poor reading behaviors of an individual.

There is a generalized belief that the development of positive attitudes toward reading in the formative years of schooling will contribute to the development of lifelong readers. No research to date, however, has examined reading attitude development from childhood to adulthood. Previous cross-sectional studies of children's reading attitudes have found a general decline that seems to begin in the school years and continues throughout the child's school experience. Bullen (1972), for example, found a decline in reading attitude from grades 1 to 3. Mikulecky (1976) 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 between grades 4 and 5. We are left to wonder about the reading attitudes of these individuals as they mature into adulthood. Will their continued education turn them off to reading or will they come to enjoy it as they continue to be immersed in the increasing demands for reading in college? Will occupational choice affect their attitudes toward reading or will their choice of careers be affected in some indirect way by their reading attitudes?

Previous studies among adult readers have consisted of cross-sectional designs comparing the reading attitudes of one group of adults to another (Dwyer & Joy, 1980) or have been descriptive accounts of the personal experiences of readers (Hickman, 1977). Cross-sectional studies suffer

from cohort effects present when different age groups are compared (Schaie, 1965). Attitudes, like cognitive and personality factors, are subject to change over time due to different environmental influences which are likely to differ from one cohort to the next.

We know very little about how adults' reading attitudes develop. Dwyer and Joy (1980) examined reading attitude development across the life span using a cross-sectional design. They compared children and adults in 3 different age groups: 6th graders; university students; young adults of the same age as the university students but who had never attended college; and adults age 60 and older. The Estes Reading Attitude Scale (Estes, 1971) was used to assess attitude. The largest difference in attitude was found between the non-college young adults and the other groups. The non-college adults displayed the least positive reading attitudes and the older adult group had the most positive attitudes.

This study suggests two things: (1) the importance of education in developing positive reading attitudes and (2) that factors other than education are important as well. Presumably, the older adults were less well-educated than the younger cohorts (this data was not reported by Dwyer et al.), yet they had the highest reading attitude scores. It is likely that occupational reading demands, exposure to a variety of different text materials and forms of text, and

having available time for reading are important factors as well. The cross-sectional design aside, this study suffered from other methodological problems that limit the generalizeability of Dwyer et al.'s findings. The Estes Reading Attitude Scale is more appropriately used with children rather than adults. One-third of the items reflect classroom reading practices (e.g., "Free reading doesn't teach anything") rather than reading activities in which adults are likely to engage.

The present report is based on data gathered from a longitudinal study and covers the development of reading attitude over nearly a 40 year period. This report represents only one dimension of a larger study that examined the development of reading skills, metacognitive reading abilities, and reading habits and attitudes from childhood to adulthood (Smith, 1988). Changes in reading attitude from early childhood to middle adulthood are examined, and the results from an assessment of reading attitude in adulthood are reported here.

METHOD

Sample

Eighty-four adults (31 males and 53 females) ranging in age from 35-44 (mean age = 39.4) participated in this study. All subjects were white, of middle class socioeconomic status (based on occupation), represented a wide range of educational attainment levels (from high school dropout to

post-graduate degree), and a wide range of occupations. All of the subjects had been participants in two longitudinal studies (Kreitlow, 1962, 1966) when they were school children. Kreitlow's research was conducted in 10 rural Wisconsin communities. The Kreitlow studies were concerned with the effects of school reorganization on academic achievement and included 1,596 children. Among the dependent variables in the Kreitlow research were IQ, reading achievement, extent of participation in extra-curricular activities, and teacher ratings of classroom behavior. Only the reading attitude data are of interest here.

The adults in the present study were recruited from the Kreitlow sample to participate in a study of reading skills development (Smith, 1988). They represented 2 cohorts (1949-1961 and 1954-1966 school attendance dates). Four-hundred and nine of the 1,596 individuals in the Kreitlow studies who could be located were contacted by letter and asked to participate in a study concerned with their reading abilities and practices. Eighty-nine persons agreed to participate. The incentive for participation was a chance to win one of four \$25.00 gift certificates to be awarded in a drawing following completion of the data collection. Five people dropped out of the study before data collection began leaving 84 subjects for study.

Instruments

Reading attitude had been assessed in Kreitlow's research at four different times (grades 1, 6, 9, and 12) using a measure developed by Kreitlow (see Appendix A). It contained 12 forced-choice items (e.g., respondent indicates a preference between two activities: "Roller skate" vs. "Read a comic book"). The fifth assessment of reading attitude (young adulthood; Appendix B) was drawn by the present investigator from a more extensive questionnaire that had been used to assess 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 4="strongly agree" to 1="strongly disagree". There were 9 items on this scale and it is referred to as the young adult reading attitude (YARA) measure. The subjects completed this questionnaire five years after high school graduation. The sixth measure of reading attitude was developed for the present study and is explained in the following section.

Procedure

The subjects in the present study were given a 40-item questionnaire (Appendix C) assessing reading attitude, along with several other questionnaires that assessed reading habits and perceptions of reading (described in Smith,

1988). This questionnaire is called the Adult Survey of Reading Attitudes (ASRA), and was adapted from a questionnaire developed by Wallbrown, Brown and Engin (1977). The Wallbrown et al. instrument was developed for assessing children's reading attitudes. The new instrument (ASRA) was deemed to be a more accurate and more relevant assessment of adults' reading attitudes than the previous measures used in the Kreitlow studies.

Subjects responded to statements about reading along a 5-point Likert-type scale reflecting strong agreement (5) to strong disagreement (1). While the Wallbrown et al. measure contained 92 items representing 8 subscales, the ASRA contains 40 items believed to represent 5 dimensions of reading attitude: (1) enjoyment experienced while reading; (2) anxiety experienced while reading or thinking about having to read; (3) external and internal reinforcement received from reading; (4) difficulty encountered when reading; and (5) the different types of reading in which the reader engages. Several items from the original Wallbrown et al. survey were modified to reflect adults' reading situations and experiences (e.g., the item "Reading is one of my best subjects" was changed to "Reading is one of my favorite activities").

Pilot testing of the ASRA was conducted using 25 undergraduate and graduate students and 16 non-faculty employees at the University of Wisconsin-Madison. This

revealed that the reliability of the ASRA was very good (Cronbach's alpha = .93). The split-half correlation was equal to .86 with a Spearman-Brown coefficient equal to .93). The test-retest reliability of the ASRA, using a subsample of 13 subjects from the current study, equalled .87. Work is currently underway to establish norms for different ages of adults for the ASRA and to conduct a factor analysis to determine if the hypothesized subscales (above) exist.

We were interested in determining if the childhood measures of reading attitude would be good predictors of the adult measure of reading attitude (ASRA). If the early childhood measures proved to be valid predictors of later adult attitude toward reading, this finding would provide some evidence of the importance of establishing positive reading attitudes in the early school years.

RESULTS

Because the two cohorts (1961 and 1966 high school graduation) were only 5 years apart, the cohorts were combined because of our belief that any cohort effects would be insubstantial. A stepwise multiple-regression analysis was performed with ASRA as the dependent variable and the 4 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 assessment accounted for the largest portion of the variance on the

ASRA (37%). The YARA measure accounted for 33% of the variance along (see Table 1).

The correlation matrix (Table 2) reveals that the 12th grade assessment of reading attitude was somewhat more strongly associated with ASRA than the 9th grade assessment (.36 vs. .34). Both the 9th and 12th grade measures are significantly correlated ($r = .38$), however, so the 12th grade measure fell out of the prediction equation. The later childhood measures (i.e., 9th and 12th grade) and the young adult measure of reading attitude, then, are stronger predictors of later adult reading attitude than are the early childhood measures (i.e., grades 1 & 6).

The pattern of correlations between the four childhood measures and the two adult measures shows, generally, a modest increase in the strength of the relationships over time. These correlations range from a non-significant relationship between the 1st grade and YARA assessments ($r = .20$), and increase to .21 between the 1st grade and the ASRA measures, to .25 between the 6th grade and the ASRA measures, and to .34 between the 9th grade and the ASRA measures. The two correlations increase slightly between 12th grade and the two adult measures of reading attitude. There is a moderate, but significant, relationship between the YARA and ASRA measures of reading attitude ($r = .58$).

Mean scores for the 1st, 6th, 9th, and 12th grade measures of reading attitude are shown in Table 3. Scores

on this measure could range from 0-12. The mean score for the YARA measure equalled 24.06 (3.47); the maximum score for this measure is 36. Because the two measures of adult reading attitude differed considerably from the childhood measures, and from one another, it was not possible to directly assess changes in reading attitude from childhood into adulthood.

The ASRA data, however, 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 (23.57). For purposes of comparison, the mean score on the ASRA equalled 151.25 for a group of 16 non-faculty employees at the University of Wisconsin. The mean ASRA score for 46 undergraduates at Northern Illinois University equalled 140.55. This UW employee group was a somewhat better-educated group, on average, than the adults in the present study and the NIU undergraduates, which may account for the large difference in mean scores.

A one-way analysis of variance showed a significant difference among the 3 levels of educational attainment in the present study ($F = 6.82$, $df = 2, 81$, $p < .01$). The three levels were: high school education ($n = 26$); college credit (with no degree) or technical school training ($n = 30$); and, college degree and post-graduate 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 ASKA for educational groups are shown in Table 4.

Differences among four identified occupational groups were then examined via a one-way analysis of variance. The four groups were: professional (e.g., teacher, newspaper editor, $n = 32$); 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 ($F = 3.10, df = 3, 81, p < .05$). Scheffé post-hoc contrasts were employed to determine the sources of these differences. 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 educational groups on the ASRA are shown in Table 4.

Sex differences were also found on the ASRA. A one-way analysis of variance was performed. Females had significantly higher reading attitude scores than did males ($F = 6.99, df = 1, 78, p < .01$). 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 is the young adult measure of reading attitude based upon 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 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 37% of the total variance. So, early childhood measures of attitude toward reading appear to be poor predictors of adult attitude toward reading.

Different measures were used to assess reading attitude in adulthood than during childhood, which may account, in part, for the inability of the childhood measures to adequately predict adult attitude. However, many discontinuities exist in reading from childhood to adulthood and these may also play a factor. For example, there is a shift from learning to read to reading to learn as the child progresses in school (Chall, 1967). 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 the job may be demanding and complex. These

factors are assumed to have some impact on adults' attitudes toward reading.

The data presented in this study show little change in reading attitude throughout the school years (see Table 3). There was a slight decline during the early years of schooling, but then an improvement in attitude during the later years. These children entered 1st grade with moderately positive feelings about reading. The decline in reading attitude at 6th grade appears to occur along with the previously-mentioned shift from a focus on learning-to-read to using reading as a way of learning about the world (Chall, 1967). The accompanying difficulty and increased demands for reading as the child progresses through school may account, in part, for the decline in attitude at that time. Other research has shown that when children are allowed to choose the kinds of reading materials that they want to read, reading attitude can be enhanced (Healy, 1963, 1965). As children move into junior high and high school, they have more freedom of choice, and a wider variety of reading materials available to them. This may account for the improvement in reading attitude during the latter half of the school years (i.e., 6th to 9th grade).

There was no indication in the Kreitlow studies that the children were exposed to activities that might have served to foster more positive attitudes toward reading. The two cohorts were in school during 1949-1961 and 1954-

1966, respectively. This period (1949-1966) was not marked by any significant innovations in reading curricula in the Wisconsin schools represented in the Kreitlow studies (Kreitlow, 1966). Further, the mean attitude scores across the four grades are moderately low (4.77 to 5.77 on a 12-point scale). The reading attitudes of these children could possibly have been improved with an intervention program such as the one reported by Healy (1963, 1965).

These children grew up to be able-functioning adults, however, and most of them reported reading on a daily basis (see Smith, 1988). They have generally positive attitudes toward reading and they view themselves as able readers. As evidence of this fact, subjects were asked to rate their own reading ability along a 5-point scale (5 = good; 1 = poor). The basis for the rating was a simple definition of good reading ("being able to combine information in the text with what you already know"). No one in the sample rated themselves as "1" or "2" (poor readers).

The cumulative effects of educational experience seem to account for these positive reading attitudes in adulthood. The adults with the most education had the most positive reading attitudes. The relationship between reading attitude and occupational status was moderate, but nonetheless, significant. Those persons who are in higher-status occupations (occupations that are likely to demand more reading) have more positive attitudes about reading.

Of course, those persons with more education are likely to be in jobs that demand more reading (e.g., teacher, banker, attorney, engineer).

Limitations

There were several limitations to this study. The measurement properties of the childhood and young adult measures of reading attitude are unknown. The childhood measures consisted of only 12 items, so their reliability is likely to be low. Reading attitude was not specifically addressed when the subjects were young adults; this measure was extracted by the present investigator from a larger survey. Three different measures were used to assess reading attitude across the six times of measurement, a factor that may have affected the outcome of the regression analysis. Finally, the sample consisted of white, middle-class adults who grew up in rural areas and, most of whom, migrated to larger towns and cities. The generalizability of the present findings to different groups of adults is uncertain.

Conclusion

The evidence presented here suggests that positive attitudes about reading that are fostered during the later school years will remain positive in adulthood, although continued education and occupational choice are likely to have a significant impact as well. This has implications for developing good reading habits among children and for

developing a nation of readers who will continue to read throughout their lives. More research is needed to determine effective ways to prevent children from developing negative attitudes about reading during the formative years of elementary school.

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	.33	.33	.001
	ATT-9	.37	.04	.05

Key: ASRA = Adult Survey of Reading Attitude
 YARA = Young Adult Reading Attitude
 ATT-9 = 9th grade reading attitudes

Table 2

Correlation Matrix for Childhood and Adult Reading Attitude Measures

	1st	6th	9th	12th	YARA	ASRA
1st	---	.91**	.81**	.20	.20	.21*
6th		---	.83**	.25*	.28*	.25*
9th			---	.30**	.24*	.34**
12th				---	.39**	.36**
YARA					---	.58**

* = $p < .01$

** = $p < .05$

Table 3

Means and Standard Deviations for Reading Attitude Measure, Grades 1, 6, 9 and 12

Grade 1	Grade 6	Grade 9	Grade 12
5.63	4.77	5.36	5.77
(2.08)	(2.16)	(2.26)	(2.08)

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

Table 4

Means and Standard Deviations for Males and Females
and Occupational and Educational Groups on the Adult
Survey of Reading Attitudes

	<u>n</u>	<u>Mean</u>	<u>S.D.</u>
Males	31	135.00	24.83
Females	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).

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APPENDIX A

Reading Attitude Scale
(Grades 1)

Students were instructed to select between two activities the one activity that they would prefer to do.

- 1.) Play on the piano.
Read a story.
- 2.) Talk about a pretty picture.
Talk about a story you have read.
- 3.) Learn what feed to give to chickens.
Listen to someone read a story.
- 4.) Play football.
Look at books in the library.
- 5.) Go hunting in the woods.
Read a new story book.
- 6.) Play outside.
Read a story book from the library
- 7.) Go fishing.
Look at picture books in the library.
- 8.) Learn how to grow apple trees.
Read a story.
- 9.) Learn to roller skate better.
Learn to read a comic book.
- 10.) Make poster for the school-room walls.
Read a story book.
- 11.) Learn how to play the piano.
Listen to someone read a story.
- 12.) Play with dolls or toy animals.
Talk about a story you have read.

Reading Attitude Scale
(Grades 6, 9, 12)

Students were instructed to select between two activities the one activity that they would prefer to do.

- 1.) Play a musical instrument.
Read a magazine.
- 2.) Talk about a painting a picture.
Talk about books I have read.
- 3.) Learn what feed is best for chickens.
Listen to someone read a story.
- 4.) Play football.
Look at books in a library.
- 5.) Go hunting alone in the woods.
Read a magazine.
- 6.) Play outside.
Read a story book from the library
- 7.) Go fishing.
Look at books in the library.
- 8.) Learn how to raise apple trees.
Read a story.
- 9.) Roller skate.
Read a comic book.
- 10.) Make posters for the classroom walls.
Read a story book.
- 11.) Take music lessons.
Listen to someone read a story.
- 12.) Play with toys or games.
Talk about books I have read.

APPENDIX B

Young Adult Reading Attitude Scale (YARA)

These items were "pulled" from a larger questionnaire that assessed subjects' attitudes toward post-secondary education and educational activities.

- 1.) Practical experience is worth more than all the books put together.
- 2.) I look forward to a free evening so that I can read a good book.
- 3.) It doesn't pay for a person to study too much.
- 4.) When I watch TV, I usually check program listings in the newspaper.
- 5.) Before visiting a foreign country, I would like to read about its history.
- 6.) There doesn't seem to be enough time these days to read books.
- 7.) I find most books too long and too hard to read.
- 8.) I can't see how there is much value in discussing some great works of literature among my friends.
- 9.) I'm really not the studying type.

Subjects respond: "strongly agree" (4), "agree" (3), "disagree" (2), or "strongly disagree" (1).

SURVEY OF READING ATTITUDES (ADULT)

5 = Strongly Agree
 4 = Agree
 3 = Not Sure
 2 = Disagree
 1 = Strongly Disagree

- 1.) I learn better when someone shows me what to do than if I just read what to do.
 5.....4.....3.....2.....1
 STRONGLY Strongly
 AGREE Disagree
- 2.) I need a lot of help in reading.
 5.....4.....3.....2.....1
- 3.) I get a lot of satisfaction when I help other people with their reading problems, or when I read to others.
 5.....4.....3.....2.....1
- 4.) I get upset when I think about having to read.
 5.....4.....3.....2.....1
- 5.) Whenever my friends read a good book, they usually tell me all about it.
 5.....4.....3.....2.....1
- 6.) I can read but I don't understand what I've read.
 5.....4.....3.....2.....1
- 7.) There are better ways to learn new things than by reading a book.
 5.....4.....3.....2.....1
- 8.) I am a good reader.
 5.....4.....3.....2.....1
- 9.) My friends enjoy having me tell them about the books that I read.
 5.....4.....3.....2.....1
- 10.) When I am at home I read a lot.
 5.....4.....3.....2.....1
- 11.) Reading is one of the best ways for me to learn new things.
 5.....4.....3.....2.....1
- 12.) Most books in the public library are too difficult for me.
 5.....4.....3.....2.....1

(The complete scale contains 40 items.)