A study was conducted to determine whether students' preferences for reading or for viewing television were related to the quality of their leisure reading choices. The families of 198 fourth, fifth, and sixth grade students were asked to complete television and reading logs for four weeks. Sixty-six students were identified from this sample as representing either the upper or the lower quartiles in terms of their leisure reading behavior (number of books read per month) or their television viewing habits (number of hours watched per week). Four groups emerged in the following categories: (1) heavy viewing/heavy reading, (2) light viewing/heavy reading, (3) light viewing/light reading, and (4) heavy viewing/light reading. The quality of the leisure reading choices for each of the four groups was analyzed using a modification of the W. E. Gray and B. Rogers Maturity in Reading Scale. The results indicated that students in the fourth group, heavy viewing/light reading, tended to choose books of lower quality than the other groups. (Author/HTH)
Television Viewing and Leisure Reading:
A Qualitative Analysis

Running Head: Television and Reading

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"
The objective of the research was to determine if students' preferences for reading or televiewing were related to the quality of their leisure reading choices. The families of 198 fourth, fifth and sixth grade students were asked to complete television and reading logs for four weeks. Sixty-six students were identified from this sample as representing either the upper or lower quartiles in terms of their leisure reading behavior (number of books read per month) or their television viewing habits (number of hours watched per week). Four groups emerged in the following categories: 1) heavy TV viewing—heavy reading; 2) light TV viewing—heavy reading; 3) light TV viewing—light reading; 4) heavy TV viewing—light reading. The quality of the leisure reading choices for each of the four groups was analyzed using a modification of the Gray and Rogers Maturity in Reading Scale (1954). Results indicated that students in the "heavy TV—light reading" group tended to choose books of lower quality than the other groups in the sample ($F(3,61)=5.26$, $p<.01$).
Promoting reading as a leisure time activity continues to be a major educational goal at all grade levels. Not only does recreational reading encourage the development of interests, it provides students with opportunities to acquire self-insights, knowledge and social awareness which are independent of their immediate environment.

The amount of time devoted to leisure reading, however, has remained relatively minimal in comparison to other activities (Himmelweit et al., 1958; Schramm et al., 1961; Witty, 1967). Greaney (1980), for example, in a recent study of fifth grade reading habits, found that out of nine leisure categories, reading ranked seventh, representing only 5.4% of overall leisure time.

Several authorities have suggested that the lack of recreational reading can be directly attributed to the growth in the nation's most popular leisure activity—television (Larick, 1975; Mankiewicz and Swerdlow, 1978; Winn, 1977). Neilson ratings indicate that the average home with television has the set on for 6.82 hours every day—an increase of almost an hour per day from the 1963 level (A.C. Neilson Co., 1976). Children, ages 2-11, watch an average of 27.6 hours a week; teenagers, somewhat less, average 21.9 (Comstock et al., 1978).
Mankiewicz and Swerdlow comment that "television has unquestionably put us on a steady decline from earlier and higher plateau's of literacy" (p. 277, 1978). Winn, in the Plug-In Drug, remarks that "there is no doubt that children read fewer books when television is available" (p. 57). Without it, she states, children would "calmly spend more time looking for something good at the library" (p. 58).

While many parents and educators might agree, research to date appears to suggest otherwise. Studies generally confirm that television does not interfere in any substantial way with the reading of books or achievement in reading (Chilcote and Ross, 1973; Clark, 1951; Greenstein, 1954; La Blonde, 1967; Quissenberry and Klasek, 1974; Neuman, 1980; Slater, 1965; Starkey and Swinford, 1974). Witty (1967), in a survey of media behavior from 1949-1965, found that the number of books read by children remained unaffected by the increasing amount of television viewed. In fact, 45% of the elementary students reported that television was a source of stimulation to read.

Whitehead (1975), in a study of reading habits, reported that a large number of heavy readers (three or more books per month) watched a considerable number of hours per week (more than 21 hours).

These null findings, however, have related only simple
measures of achievement scores and the number of books read with the time spent viewing. No systematic attempt has been made to determine how television might affect the nature and quality of what is being read outside the school setting. Indeed, effects might emerge using more sophisticated measures of reading behavior.

The specific goal of the analysis reported here was to determine if students' preferences for reading or televiewing were related to the quality of their leisure reading choices. The quality of a particular book was determined by an analysis of its intellectual challenge and the richness of ideas presented (Gray and Rogers, 1954). Utilizing data from a television and reading survey, this study examined the books read during leisure time over a period of one month for four distinct subgroups representing extremes, in this particular sample, in both their amounts of television viewing and recreational reading. By the use of a qualitative rating scale adapted from Gray and Rogers, further information regarding the potential linkage between television and reading can be derived from these data.

Sample

A survey of television viewing, reading achievement and leisure reading patterns was conducted in the Fall of 1980.
involving 198 students from grades 4, 5, and 6 in a small New England town.

The family of each child who participated in the study was asked to complete two sets of logs daily for four weeks: 1) television logs, recording the specific shows viewed on commercial as well as educational stations, and 2) reading logs, including the number of books, newspapers, magazines, and comic books read. In addition, I.Q. and reading achievement scores were obtained by parental permission, through student files.

The results of the survey analyzing the effects of television's content on reading achievement and leisure reading patterns are presented elsewhere (Neuman, 1981). The present report focuses on the quality or maturity level of leisure reading choices for those students identified in the sample as representing either the upper or lower quartiles in terms of their leisure reading behavior (as measured by the number of books read during the month) as well as their television viewing habits (as measured by the average number of hours watched per week). These subgroups were selected to determine if television use predicted the quality of leisure reading materials. Thus the emphasis of this research was not on the number of books read, or the readability levels of books chosen, but rather on the level
of sophistication or quality of the ideas presented and the method of presentation in the books selected.

Four groups were selected for this analysis, totalling 66 students in the following categories:

1. Heavy TV viewing—Heavy reading
2. Light TV viewing—Heavy reading
3. Light TV viewing—Light reading
4. Heavy TV viewing—Light reading

Descriptive statistics for each of the groups are provided in Table 1. Socio-economic status, coded using the nine point Duncan Occupational Index (1969), indicated that the groups were from a middle-class background. I.Q. scores, determined by the Otis Lennon Intelligence Test, showed that all four groups demonstrated a normal range of intelligence. Girls tended to read more than boys, as indicated by the composition of both high reading categories.

Procedure

To obtain an estimate of the quality of leisure reading choices for each of the four groups, a modification of the Gray and Rogers Maturity in Reading Scale (1954) was used. The scale was developed to assess reading maturity, defined by the authors as "the attainment of those interests, attitudes, and skills that enable people to participate...in all reading
activities essential to a full, rich, and productive life" (p. 56).

The scale was designed to measure the maturity level of both fiction and nonfiction materials. Three areas were identified by Gray and Rogers as key factors reflecting the quality of books read: 1) its intellectual challenge, 2) the complexity of the treatment of ideas, situations or characters, and 3) the richness of ideas, insights, and understandings presented. Judges were asked to rate reading material on a five point scale, with five representing the highest level of maturity and one representing the lowest, for each dimension. A mean of these scores indicated the overall quality of the book read.

Fiction and nonfiction books listed on students' logs were examined separately according to the maturity scales. Sixty-two percent, or 171 of the narrative books were located and analyzed independently by two reading professionals. Each book received three separate scores reflecting the quality of the plot, characterization, and richness of ideas. Inter-coder reliability was .92. An average of these three scores was computed to provide a qualitative rating score for each fiction book.

A similar procedure was followed for nonfiction materials, representing 21% of all books read. Three scores were given indicating the quality of the subject matter, intellectual challenge, and richness of ideas, and an average was obtained for the fifty-five books analyzed (inter-coder reliability .90). Finally,
each student's log received an overall rating by computing a mean score of the quality of all books read over the four weeks.

Results

Correlations were computed to determine the relationship between the demographic variables of socio-economic status, sex, grade, I.Q., and reading achievement with the qualitative rating scores. Significant correlations were reported for sex, I.Q., and reading achievement, indicating that the more mature readers tended to be girls \( (r = .21, p < .05) \), intelligent \( (r = .34, p < .01) \) and proficient readers \( (r = .28, p < .05) \). Interestingly, an inverse though nonsignificant relationship was seen between grade level and quality scores \( (r = -.17) \), suggesting that the more sophisticated books were read by the younger students in the sample. This relationship might be indicative of a general decline in the interest in leisure reading that is often associated with students beginning early adolescence (Whitehead, 1975).

The means and standard deviations of the qualitative rating scores were determined for each of the four groups (Table 3) and it is here where several interesting patterns regarding media preferences and the quality of leisure reading choices begin to emerge. Students who clearly preferred reading to television viewing (group 2), read the highest quality books \( (\bar{x} = 2.78) \). Average scores for those students who were either heavy or light in both
reading and television categories (groups 1 and 3), appeared, for the most part, to be undifferentiable from group 2 (\(\bar{X}=2.45, 2.52\), respectively). These data suggest that high levels of television viewing combined with high levels of reading did not lead to the selection of lower quality leisure reading materials.

A distinctly different pattern was reflected by students who were heavy TV viewers and light readers. They clearly tended to choose books of lower quality than others in the sample (\(\bar{X}=1.55\)). Furthermore, a comparison of means for the two light reading groups suggests that these differences could not be attributed to the small number of books read.

Analysis of covariance was used to control statistically for any initial differences among the students which might have been present and which might potentially confound differences between the four groups of students. Covariates in this analysis included sex, socio-economic status, I.Q., grade level, and reading achievement scores. As shown in Table 4, the null hypothesis of no differences between groups on the dependent variable, quality of reading, was rejected. The Tukey H.S.D. (honestly significant difference) procedure was used to identify which of the group means were significantly different from the others (Winer, 1971). The multiple range test revealed that students who were heavy TV viewers and light readers chose books of a
significantly lower quality than the three other groups in the sample (p < .05).

Conclusion

Studies of television viewing and reading have, for the most part examined the relationship between the number of hours viewed and performance scores on reading achievement tests. The results of this research suggest that when the demographic variables of I.Q. and socio-economic status are controlled statistically, television is not a significant factor in predicting achievement in reading. These studies, however, have not addressed how television might potentially affect the process of developing mature readers, those people who not only can read but do read to broaden interests and develop improved patterns of thinking and behaving. We cannot extrapolate from this research and conclude there are no other possible linkages between patterns of television viewing and reading.

The study reported here analyzed the quality of materials read during leisure time. The variable of quality was analyzed for four groups reflecting distinct media preferences: heavy TV viewing--heavy reading; light TV viewing--heavy reading; light TV viewing--light reading; and heavy TV viewing--light reading. The analysis indicated that those students who were inclined to watch a good deal of television (three or more hours
per day in this sample) and read little (less than two books per month), chose books of significantly lower quality than others in the sample.

These results are of particular importance in light of Himmelweit and Swift's recent research findings (1996). A twenty-year longitudinal study of the relationship between television and other media including reading, radio and cinema going, indicated that the patterns of media preferences and tastes established by youngsters at ages 13 and 14 were highly predictive of their adult usage of the media. Thus, for example, interest in high quality reading materials as an adolescent correlated highly with preferences for similar content in adult life. Taste for strong stimulation (violence and adventure), as well, showed similar continuity over time.

The findings reported in this study therefore present an important challenge to parents and educators alike. Providing children with stimulating reading materials that are both demanding and varied during their leisure time should be a continuing concern in view of the potential implications for future reading.

The relationship between television and reading clearly remains an important issue. What this study suggests is that there appears to be an intriguing and complex interaction between the
two media which should lead researchers interested in the development of leisure reading as a continuing life-long activity to further explore.
Table 1
Descriptive Statistics for the Sample Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>SES</th>
<th>I.O.</th>
<th>Grade</th>
<th>N of Books Per Month</th>
<th>TV Viewing Per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy TV Viewing - Heavy Reading</td>
<td>Boys=3</td>
<td>5.71</td>
<td>107</td>
<td>4= 3</td>
<td>5.8</td>
<td>27</td>
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<td></td>
<td>Girls=8</td>
<td></td>
<td></td>
<td>5= 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total=11</td>
<td></td>
<td></td>
<td>6= 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light TV Viewing - Heavy Reading</td>
<td>Boys=0</td>
<td>6.36</td>
<td>116</td>
<td>4= 8</td>
<td>7.6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Girls=13</td>
<td></td>
<td></td>
<td>5= 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total=13</td>
<td></td>
<td></td>
<td>6= 2</td>
<td></td>
<td></td>
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<tr>
<td>Light TV Viewing - Light Reading</td>
<td>Boys=11</td>
<td>6.61</td>
<td>106</td>
<td>4= 9</td>
<td>1.7</td>
<td>7.5</td>
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<td></td>
<td>Girls=12</td>
<td></td>
<td></td>
<td>5= 7</td>
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<td></td>
<td>Total=23</td>
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<td>6= 7</td>
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<tr>
<td>Heavy TV Viewing - Light Reading</td>
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<td>6</td>
<td>107</td>
<td>4= 9</td>
<td>1.6</td>
<td>22</td>
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<tr>
<td></td>
<td>Girls=9</td>
<td></td>
<td></td>
<td>5= 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total=19</td>
<td></td>
<td></td>
<td>6= 4</td>
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</tbody>
</table>
Table 2
Indicators of Maturity in Fiction

I. Plot

Level 5--Plot is used to illustrate universal problems and truths
Level 4--Plot and points it illustrates are above average but lack universality
Level 3--Plot is used to illustrate some point beyond mere story for story's sake.
Level 2--Plot still primary; ideas, probability, consistency are sacrificed to plotting
Level 1--Plot is important for its own sake. Hackneyed standard plot formula. *Deus ex machina* solution and devices

II. Characters

Level 5--Characters stand up both as individual characters in the book and as symbols of broader implications.
Level 4--Characters, individualized, with some psychological insight
Level 3--Characters may be used to illustrate a particular characteristic or point of view.
Level 2--Characters are stock characters
Level 1--Characters are introduced merely to act as vehicles for the action.

III. Richness of Ideas

Level 5--Contributes to the development of a scale of values and/or a philosophy of life.
Level 4--Ideas (of some originality) with implications of wider importance than immediate situation but readily grasped without too much intellectual effort.
Level 3--Some original twists on familiar ideas--or a fairly new idea of limited scope.
Level 2--Introduces some new ideas, but treated in a pedestrian way.
Level 1--Plot is end-all and be-all; story for story's sake; commonplace and hackneyed ideas and plotting.
Table 2 (continued)

Indicators of Maturity in NonFiction

I. Subject Matter

Level 5--Subject matter involves issues of a social, cultural, historical or political nature; several frames of reference for viewing subject are presented.

Level 4--Subject matter involves specific incidents, biographical portraits, or descriptions usually limited to one frame of reference.

Level 3--Subject matter involves avocational interests and hobbies.

Level 2--Subject matter deals with specific methods, processes, problems and techniques related to the practical demands of daily living.

Level 1--Subject matter is superficial; material designed for purposes strictly of amusement or shock value.

II. Intellectual Challenge

Level 5--Presentation is as stimulating as the materials presented; thorough research coupled with logical implications.

Level 4--Accurate presentation of factual material with additional interpretive data but failure to extend to fullest implications.

Level 3--Accurate presentation of factual material; some biases or limitations may appear in the presentation.

Level 2--Reporting may be accurate but is oversimplified and pedestrian.

Level 1--Unsuccessful attempt to make report adequate.

III. Richness of Ideas

Level 5--Represents an original contribution to the world's thought.

Level 4--Important problem dealt with in a competent and/or stimulating way.

Level 3--Good coverage of purely factual matter.

Level 2--Ideas introduced but not original; attempts to stimulate thought based on sensational or sentimental appeals.

Level 1--No ideas; mere reportage of unimportant or trivial matters.
Table 3
Means and Standard Deviations by Group for the Qualitative Rating Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td><strong>Group 1</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Heavy TV Viewing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Reading</td>
<td>2.45</td>
<td>.72</td>
<td>11</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light TV Viewing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Reading</td>
<td>2.78</td>
<td>.52</td>
<td>13</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light TV Viewing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Reading</td>
<td>2.52</td>
<td>1.23</td>
<td>23</td>
</tr>
<tr>
<td><strong>Group 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy TV Viewing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Reading</td>
<td>1.55</td>
<td>1.05</td>
<td>19</td>
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Table 4  
Analysis of Covariance Summary Table  
Comparison of Groups on the Qualitative Rating Scores

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sign.</th>
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<tr>
<td>Between Groups</td>
<td>3</td>
<td>5.14</td>
<td>5.26</td>
<td>.003</td>
</tr>
<tr>
<td>Within groups</td>
<td>61</td>
<td>.98</td>
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<td>p&lt;.01</td>
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**Multiple Classification Analysis**

Grand Mean 2.28

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Unadjusted Dev'n</th>
<th>Adj. for Covariates</th>
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<tr>
<td>Group 1 Heavy TV--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Readers</td>
<td>11</td>
<td>.16</td>
<td>.39</td>
</tr>
<tr>
<td>Group 2 Light TV--</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Readers</td>
<td>13</td>
<td>.50</td>
<td>.39</td>
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<tr>
<td>Group 3 Light TV--</td>
<td></td>
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</tr>
<tr>
<td>Light Readers</td>
<td>23</td>
<td>.24</td>
<td>.29</td>
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<tr>
<td>Group 4 Heavy TV--</td>
<td></td>
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<tr>
<td>Light Readers</td>
<td>19</td>
<td>-.72</td>
<td>-.84</td>
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References


