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ABSTRACT

The Richfield Educational Assessment Program is a district-wide effort to collect specific information about the knowledge, skills, understandings, and attitudes of students in selected areas. The information collected will be used to help Richfield citizens and educators make decisions for program improvement. The program closely parallels both the National Assessment of Educational Progress and the Minnesota Educational Assessment Program, but it allows a local district to analyze the performance of its own students. Before the assessment, teachers set the standards for student performance; Richfield was the first district in the nation to set local standards, or expectation levels, for performance on items used in both the national and state assessments. The 1973-74 program evaluated 9-, 13-, and 17-year-olds in four major categories of reading skills: word identification and word recognition; understanding of word meanings, word relationships and sentences; understanding of the relationships of ideas in paragraphs and longer passages; and applying basic reading skills for purposes of studying, gathering information and following directions. (BW)

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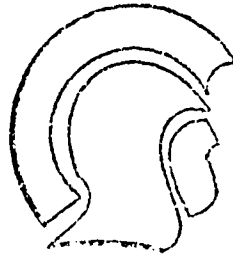
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RICHFIELD EDUCATIONAL ASSESSMENT PROGRAM

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EDUCATORS LOOK AT READING RESULTS

Summary of Findings and Preliminary Interpretation

by the

Richfield Reading Data Analysis Committee

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RICHFIELD SCHOOLS

RICHFIELD, MINNESOTA

MARCH, 1975

TM005 485

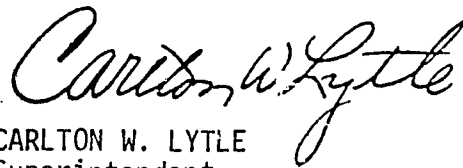
## F O R E W O R D

The Board of Education has identified program evaluation as a major thrust for the Richfield Public Schools. It is our responsibility to develop and support programs which provide useful information for making educational decisions. The Richfield Educational Assessment Program (REAP) is an attempt to determine the results of our efforts in helping students to acquire appropriate skills and attitudes.

This document is the result of a cooperative effort of several agencies and individuals. The Minnesota Office of Statewide Assessment and Research Triangle Institute have worked closely with Richfield educators in planning and conducting this study. The Richfield Reading Data Analysis Committee is to be commended for their efforts in distilling hundreds of pages of information into this report. I am confident that this cooperative spirit will continue throughout each phase of our assessment program.

Credit and appreciation must be given to Ivan Ludeman, REAP Project Director, for his leadership and to Lillian Ford and Dennis Laingen for the coordination and editing of this report.

The purpose of this report is to communicate to interested citizens and staff members both the nature of Richfield's assessment program and the results of our first year's efforts. I believe it will do just that, and I am pleased to present it for your consideration.



CARLTON W. LYTLE  
Superintendent  
Richfield Public Schools

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## B A C K G R O U N D   I N F O R M A T I O N

1. What is the Richfield Educational Assessment Program (REAP)?

REAP is a districtwide effort to collect specific information about the knowledge, skills, understandings and attitudes of students in selected subject areas. Reading was assessed during the 1973-74 school year, and mathematics is being assessed during the 1974-75 school year. Present plans include assessment in social studies, science and other areas in future years. The information collected through these assessments will be used to help Richfield citizens and educators make decisions for program improvement.

2. Is this assessment program strictly a local effort?

No. REAP closely parallels both the National Assessment of Educational Progress (NAEP) and the Minnesota Educational Assessment Program (MEAP). Richfield is now receiving federal monies<sup>1</sup> to continue this local project and is working closely with the Minnesota Department of Education. This cooperative effort provides experience and resources not typically available to local school districts.

3. If there are national and statewide assessment programs, why do we need one in Richfield?

The national program reports its findings on a nationwide and regional basis only; the Minnesota program reports its findings by ten geographic

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<sup>1</sup>See glossary for further information.

regions within the state and by specific groups of districts (rural, suburban and city). This does not permit a local district such as Richfield to analyze the performance of its own students.

The 1973 legislature authorized a "piggyback" option, which permits an individual school district to use basic state assessment materials to assess local performance. Information about Richfield's performance levels is useful for purposes of comparison with other districts, but by itself it provides little direction for decisions regarding the educational program in Richfield. These decisions require that the performance of Richfield students be related to information concerning the characteristics of the present instructional program and the present student population in Richfield. Such information must be gathered and interpreted by means of a local assessment program. REAP has been designed to include this feature and thus to provide a sound basis for program decisions aimed at our ultimate goal, improvement in the performance of Richfield students.

4. What makes REAP unique?

Richfield was the first school district in Minnesota to take advantage of the "piggyback" option. To our knowledge, Richfield is also the first district in the nation to set local standards, or expectation levels, for performance on items<sup>1</sup> used in both the national and state assessments. Perhaps the most exceptional characteristic of this study is the amount of teacher involvement. Before the assessment, teachers set the standards

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<sup>1</sup>See Glossary for explanation.



for student performance. Following the assessment, teachers are involved in the analysis and interpretation of results and in the formulation of recommendations relating to the instructional program.

5. What kinds of information do Richfield teachers supply?

For each item in the exercise,<sup>1</sup> teachers are asked to state beforehand three expectation levels for Richfield students. (In the case of the reading assessment, these levels of expectation were established for only two of the three age groups involved.) The Desired level is that percentage of students teachers would expect to answer the item correctly if reading instruction and performance were optimal. The Minimal Acceptable level is that percentage which would indicate that the skill is being learned satisfactorily. The Predicted level is that percentage of students the teachers actually expect to respond correctly.

Teachers also provide information about themselves as teachers of the subject area being assessed and about the Richfield program for that curriculum area. The nature of this information is described in a later section of this report.<sup>2</sup>

6. Who is being assessed in the Richfield Educational Assessment Program?

As in the National and State Assessment, 9-, 13- and 17-year-olds are chosen as the three age groups to assess. All 9- and 13-year-olds and 500 17-year-olds in the Richfield Public Schools participated in the

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<sup>1</sup>See Glossary for explanation.

<sup>2</sup>See Question 21.

reading assessment which took place during the 1973-74 school year.

7. Are students who participate in REAP identified by name?

No. Students' names are not placed on any of the assessment exercises. Therefore, the Richfield Educational Assessment Program assures the anonymity of each respondent. The reading results were reported by age group only.

8. What kinds of reading skills were assessed?

Four major categories of reading skills were included in the exercises: word identification and word recognition skills; understanding of word meanings, word relationships and sentences; understanding of the relationships of ideas in paragraphs and longer passages; and applying basic reading skills for purposes of studying, gathering information and following directions.

These four major skill areas were arranged from beginning to advanced levels of reading instruction. Each category was subdivided into a number of more specific skills. For purposes of analysis, each exercise item was keyed to one of these specific skills.

The exercise for each age group contained some items from each major category, but the number and difficulty of items varied with the age level assessed. Some identical "overlap" items were used at two or more age levels. Along with the items from the State Assessment, some items from the National Assessment were included in the exercise for each age level.

9. How was the reading assessment information analyzed?

A report closely paralleling that on the Minnesota Reading Assessment was prepared for the Richfield Public Schools by Research Triangle Institute of North Carolina in cooperation with the Minnesota State Department of Education. The Richfield Reading Data Analysis Committee (Appendix A) carefully studied and analyzed this 600-page report and recommended some revisions in the first draft. This same local committee distilled the information in the complicated, lengthy report of these outside experts and prepared this report for the information of the general reader.

10. How will the information in these reports be used?

A Richfield Reading Program Improvement Committee (Appendix B) will study this report and, when necessary, consult the longer report on which it is based. They will then offer specific recommendations for further program evaluation, for program improvement and for appropriate inservice education activities for teachers.

## GENERAL FINDINGS

11. On the whole, how well do Richfield students read?

Richfield students did very well on the reading assessment. Overall, they performed about as well as Richfield teachers had predicted they would. Their total performance was better than that of students throughout Minnesota, the central states and the nation as a whole, and it was comparable to that of students in Minnesota districts similar<sup>1</sup> to Richfield.

12. How does the reading performance of Richfield students compare with that of students in the nation as a whole and in the nation's suburbs?

A relatively small number of items from the National Assessment of Educational Progress (NAEP) were included in the Minnesota Assessment in which Richfield students participated. These items related to only two of the four categories: understanding of the relationships among ideas in paragraphs and longer passages, and reading study skills. Twenty-four such items were administered<sup>2</sup> to Richfield 9-year-olds, 19 to the 13-year-olds, and 26 to the 17-year-olds.

In general, the results show that on these NAEP reading items, Richfield 9- and 13-year-olds, like other Minnesota students, performed well above students in the nation as a whole and at about the same level as students in the nation's suburban districts. Richfield 17-year-olds, on the other hand, scored well above the state and the nation's suburbs and even further above the nation as a whole.

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<sup>1</sup>See Glossary for explanation of the term similar districts.

<sup>2</sup>See Glossary for explanation.

13. How does the reading performance of Richfield students compare across age levels?

Some identical items were included in the exercises for more than one age level. Of these overlap items, 128 were administered to both 9- and 13-year-olds, 44 to both 13- and 17-year-olds, and 14 to all three age groups. On those items where performance can be compared across two age groups, the average correct was 14 percentage points higher for Richfield 13-year-olds than for 9-year-olds and 14 percentage points higher for 17-year-olds than for 13-year-olds. On those few items which were administered to all three age groups, the differences were 27 percent from age 9 to age 13 and 12 percent from age 13 to age 17. These overall performance trends did not differ from those observed throughout the state.

14. What attempts were made to determine whether there is a relationship between reading performance and the backgrounds, characteristics and attitudes of students?

In Richfield, as in the state as a whole, performance results were reported separately for a number of subgroups of students classified on the basis of certain factors which distinguish them from their other classmates. For example, one set of subgroups was based on the socioeconomic status<sup>1</sup> of students as determined from information about the education and occupation of their parents.

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<sup>1</sup>For further information on the method of determining socioeconomic status, refer to pages 1-2, Appendix C of the report prepared by Research Triangle Institute.

In examining these subgroup reports, there is a temptation to assume that the attribute which the members of the subgroup have in common is the cause for the kind of reading performance demonstrated by students in that subgroup. This is not necessarily the case. However, if there appears to be a marked and consistent relationship between subgroup characteristics or circumstances and reading performance trends, then it might be worthwhile to explore further the possibility that this factor which distinguishes a subgroup from the rest of their classmates may be the cause, or at least a contributing cause, for the quality of the subgroup's performance.

15. How well did Richfield students in each of the three socioeconomic groups perform on the reading assessment?

At all three age levels, the number of Richfield students in the low socioeconomic group was too small for reliable analysis.<sup>1</sup> The performance of Richfield students in the higher socioeconomic group was significantly<sup>2</sup> above the Richfield district performance levels for reading in general and also for each of the four reading skill categories. The performance of Richfield students in the middle socioeconomic group varied somewhat from age level to age level. Nine-year-olds in this subgroup scored slightly below the district level in three of the four categories and significantly below in the other, which dealt with comprehension of

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<sup>1</sup>See Glossary for explanation.

<sup>2</sup>In this report, significantly is used in its statistical sense. It refers here to statistical significance at the .05 level of confidence. This means that a difference between scores which is labeled as significant would be likely to occur by chance only 5 times in 100.

paragraphs or longer passages. On the other hand, the performance of 13-year-olds in this socioeconomic subgroup was significantly above the district level for this reading skill area and not significantly different from the district level for the other three areas. The scores of Richfield 17-year-olds in this subgroup were above the district averages for total reading and for the categories involving reading study skills and the comprehension of paragraphs and longer passages.

16. Who are the better readers, Richfield boys or Richfield girls?

Richfield results were quite consistent with those for the state as a whole and with other studies comparing the reading performance of boys and girls. Girls did better than boys.

On the entire reading assessment, Richfield girls scored significantly higher than Richfield boys. The scores of 9- and 13-year-old girls were also significantly higher than those of the boys for each of the four categories of reading skills. Among the 17-year-olds, the girls performed significantly better than the boys in all areas except the one dealing with understanding word relationships and the meanings of words and sentences. In this category the girls' and boys' scores did not differ significantly. The greatest difference between boys' and girls' scores occurred at the 9-year-old level, where the girls' average score for the category involving comprehension of longer passages was higher than the boys' by 8.2 percentage points.

17. How did Richfield students' reading performance compare with their opinions about themselves as readers?

The performance of Richfield students at all three age levels, like that of their classmates throughout the state, corresponds closely to what they think about their ability as readers.

Richfield 9-year-olds who thought of themselves as poor readers scored substantially and significantly below the average of their local classmates for total reading and for each of the four skill areas. The scores of those who rated themselves as good readers were higher than the overall average of Richfield 9-year-olds, and they were also higher than the average in the categories relating to comprehension of words, sentences, and longer passages. Those who judged their reading ability as excellent scored significantly above both the overall average and the average for each one of the four types of reading skills.

Scores of Richfield 13-year-olds who said they had had some reading difficulties in the past were significantly below the overall score for their age group, and they were also significantly below the district level for every one of the four areas of reading skills. Those who said they had not had any previous reading difficulty performed significantly above the district level for overall reading and for each of the four categories.

Richfield 17-year-olds who rated themselves as either slightly or well above average in reading ability performed significantly above the district level for total reading and for each individual category, while



students who considered themselves average or below-average readers were significantly below the district level on every comparison. The 17-year-olds were also grouped according to their responses to questions relating to unassigned reading. In Richfield, so few classified themselves as having poor independent reading habits that results were not reported for them. Those who rated themselves as average or superior in reading habits did significantly better than the average for their age group in Richfield on each of the four skill categories and on the total reading assessment.

18. What were the performance results for groups of students with different plans for future education?

Only the 13- and 17-year olds were asked about their educational aspirations. Richfield students who indicated that they planned not to finish high school or not to continue their education beyond high school were so few in number that no reliable report<sup>1</sup> was possible for that subgroup at either age level.

Those Richfield 13-year-olds (34%) who expect to attend vocational, technical or junior colleges performed at levels near the district average except in the category dealing with comprehension of longer passages, where their performance was significantly lower than the district average. Scores of the Richfield 17-year-olds with these same educational aspirations (43%) were significantly lower than the average for their classmates on all comparisons.

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<sup>1</sup>See Glossary for explanation.

Of those Richfield students who plan to go to a four-year college or beyond, the 13-year-olds (53%) scored somewhat higher and the 17-year-olds (51%) scored significantly higher than the average for their classmates on all comparisons.

19. How did Richfield students' reading performance compare with their estimates of their intelligence?

Thirteen-year-olds in Richfield were asked to indicate how bright they felt they were in comparison with their classmates. Those who rated themselves average or below average in intelligence performed significantly below district levels for all comparisons. Students who considered themselves slightly or well above average scored significantly above the district average for all comparisons, with the "well above average" group outperforming all others. These results are similar to those for 13-year-olds throughout the state. This is the only age level at which students were classified for reporting purposes on the basis of their estimate of their intelligence.

20. What were the performance results for groups with favorable or unfavorable attitudes toward school?

Such results were reported only for 9-year-olds. Those who said they thought school was "OK" scored near the performance levels for all Richfield 9-year-olds, and those who said they liked school "a lot" scored significantly above the average for their classmates on each of the four categories as well as on the entire assessment. No reliable

report was possible for those Richfield 9-year-olds who said they didn't like school because their number was too small.

On all comparisons, those Richfield 9-year-olds who indicated that they frequently found it hard to pay attention in reading class scored significantly lower than the average for their Richfield classmates, while those who indicated that they seldom had trouble paying attention scored significantly above that average.

21. What attempts were made to discover possible relationships between specific aspects of the Richfield reading program and the reading performance of Richfield students?

The Richfield study was unique in the kinds of instruments designed to gather information about circumstances which might be expected to relate to reading performance and also in the number of people from whom the information was collected.

On the Teacher Inventory of Perceived Capability, each elementary teacher and each teacher of reading or English at the junior high school level rated the strength of her/his ability to teach each skill involved in the items used to assess student performance and also recorded a Yes/No judgment about the availability and adequacy of materials to teach that skill.

Each teacher also completed the Teacher Knowledge Inventory, answering a set of questions which measured knowledge of the reading skills involved in the student exercise items.

On the Teacher Inventory of Instructional Materials, teachers supplied information about the amount of time they spend in teaching reading, the grouping practices and teaching methods they use for reading instruction, and the availability and quality of teaching materials.

A committee in each of the elementary and junior high schools completed a School Inventory, giving information about the reading program in that building and including such specifics as the way students are grouped for reading instruction; at what grade levels the various skills are introduced, emphasized, maintained and phased out of the program; the number of special teachers and teacher aides to assist the classroom teachers; and the kinds of teaching and testing materials available. (See also question 5.)

22. What was learned about the relationship between specific aspects of the reading program and the performance of Richfield students on specific reading tasks?

Although the instruments used to collect information about the reading program were specially designed to be more sensitive than those commonly used in research studies, the results were disappointing. No strong and consistent relationships between specific aspects of the reading program and the strengths and weaknesses in students' reading performance became apparent.

PERFORMANCE IN THE FOUR SKILL  
CATEGORIES

23. How did the three separate age groups do in each of the four areas of reading skills assessed?

Word Identification and Word Recognition Skills

One category of items included in the reading assessment related to word identification and word recognition skills. Richfield 9-year-olds and 13-year-olds demonstrated overall strength in this skill area. This is true whether their scores are compared with those which Richfield teachers expected them to attain or with the scores of students their own age throughout Minnesota or in similar districts.

Richfield teachers were not asked to predict how the 17-year-olds would do on the assessment, but their overall performance in this skill area was not significantly different from the performance of their age group throughout the state or in similar districts.

Understanding of Word Meanings, Word Relationships and Sentences

Another group of items dealt with the ability to understand word meanings, word relationships and sentences. Overall, the scores of Richfield 9-year-olds in this comprehension area were higher than Richfield teachers expected and not significantly different from those at their age level in the state or similar districts. Richfield 13-year-olds scored at or above teacher expectations on four of the six types of items in this category. On the total category, their performance did not differ

significantly from that of 13-year-olds in the state or similar districts. Richfield 17-year-olds scored significantly higher than Minnesota 17-year-olds and the same as students their age in similar districts.

#### Understanding of Paragraphs or Longer Passages

The third section of the reading assessment contained items relating to students' understanding of the relationships among the ideas in paragraphs or longer passages. The overall scores of Richfield 9-year-olds were higher than Richfield teachers had predicted and much like those of other 9-year-olds in the state and similar districts. Richfield 13-year-olds did better than the teachers expected on four of the subgroups of items within this category and less well on the other four. On no subgroup did their performance differ significantly from that of 13-year-olds in the state or similar districts. The overall performance of Richfield 17-year-olds on these comprehension items was comparable to that of their peers in similar districts and significantly better than that of their age group throughout Minnesota.

#### Reading Study Skills

The final category of exercise items dealt with applying basic reading skills for purposes of study, information gathering, and following directions. Taken as a whole for this entire area of reading study skills, the scores of Richfield 9-year-olds were not significantly different from those of other 9-year-olds in the state or in similar districts, and they were somewhat above teacher predictions. However, their scores were significantly below those of their peers in similar

districts on eleven of the thirty-three items in this category and significantly higher on none.

In this category Richfield 13-year-olds scored somewhat lower than the teachers expected and significantly lower than students their age in similar districts, although they did as well as their classmates throughout the state. Overall scores of Richfield 17-year-olds were significantly better than those of their age group in the state and comparable to those of their peers in similar districts.

S P E C I F I C   S T R E N G T H S   A N D   W E A K N E S S E S  
B Y   A G E   G R O U P

24. Total scores for the broad skill categories tend to mask differences in performance on the various specific kinds of reading skills within each category. Can specific skills in which Richfield students in each age group showed particular strength or weakness be pinpointed?

For each specific skill, the score for each age group of Richfield students was compared with four other scores: that which the teachers desired them to attain, that which the teachers considered the minimal acceptable attainment, and those actually attained by their peers in similar Minnesota districts and in the entire state. A composite comparison<sup>1</sup> was also made between the score attained and a combination of that which the teachers expected and that which was attained by their age group in similar Minnesota districts. Then by means of a statistical process, each specific skill area was identified on the basis of each of the various comparisons mentioned above as an area of Strength, Potential Strength, No Directionality, Potential Need, or Need.<sup>2</sup>

For purposes of interpreting the results in a meaningful way, the composite comparison is the most useful and is employed at the two

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<sup>1</sup>For an explanation of the statistical process used to arrive at the composite comparison, refer to page 89 of the final report prepared by Research Triangle Institute.

<sup>2</sup>For an explanation of how these determinations were made, refer to pages 82-89 of the final report prepared by Research Triangle Institute.



age levels where this is possible. It is impossible at the 17-year-old level because no teacher expectations were established for student performance by that age group prior to the assessment.

25. What were some of the specific strengths or weaknesses in the reading performance of Richfield students in each of the three age groups?

*Nine-Year-Olds*

On the basis of the composite comparisons, Richfield 9-year-olds demonstrated Strength or Potential Strength in five of the eight specific skill areas in the category relating to word identification and word recognition skills: initial consonants, initial consonant blends, simple vowels, vowel digraphs and recognition of syllables as blendings of sounds. They demonstrated a Need or Potential Need in none of these eight skills.

In the category dealing with word and sentence comprehension, Richfield 9-year-olds exhibited Potential Strength in two of the five specific skill areas: recognizing the correct paraphrase of a sentence and identifying word relationships. A Potential Need exists in one area, identifying the meaning of an unfamiliar word by means of context clues.

Of the five specific skills relating to comprehension of longer passages, the one Potential Strength at the 9-year-old level was in inferring meaning on the basis of previous knowledge. The single Potential Need in this category was in recalling details.

Richfield 9-year-olds did less well on the items involving reading

study skills than on any other category. They demonstrated Potential Strength in only one specific skill, the use of guidewords. Their performance on the exercise items assessing the other five skills reflected either a Need or a Potential Need. These weaknesses were in following directions, interpreting directions, answering questions of detail from visual displays (charts, graphs, etc.), identifying correct alphabetical sequences and identifying likely sources to consult for specific kinds of information. Caution should be exercised in drawing conclusions from the performance results on the skills of following directions, answering questions on details in visual displays and identifying sources to consult for specific information, since three or fewer items were used to measure each of these skills.

#### Thirteen-Year-Olds

Richfield 13-year-olds demonstrated twice as many strengths as weaknesses in word identification and word recognition. Of the eight specific skills assessed, they showed Strength or Potential Strength in four: final consonants, initial blends, simple vowels, and syllables as blendings of sounds. They showed a Potential Need in two: identifying the number of syllables in a word and recognizing prefixes and suffixes.

Of the six specific skills relating to comprehension of words and sentences, only one (understanding word relationships) was identified as a Potential Strength for this age group. Only one (identifying which possible meaning of an ambiguous statement is appropriate to the context of a paragraph) was identified as a Need.

Two Potential Strengths and four Potential Needs of 13-year-olds emerged from the assessment of the eight specific skills relating to comprehension of longer passages. Their Potential Strengths are in inferring meaning through the use of information based on past experience and in identifying common forms of persuasive language used in advertisements. Potential Needs include recalling specific details, identifying the main idea, making inferences based on information in the passages and identifying words which give clues to the writer's point of view.

Like Richfield 9-year-olds, the 13-year-olds demonstrated weaknesses in reading study skills. A Need or Potential Need was identified in six of the seven specific skills assessed. No Strength or Potential Strength was evident. Since only three or fewer items were used to test the skill of interpreting directions and the three skills relating to interpretation of visual displays such as charts, graphs and maps, there may be some question about how much importance to attach to the results. However, the eight items relating to each of the other three skills (following directions, using guide words, and interpreting information on library catalog cards) are considered adequate for judgments based on statistical analysis.

#### Seventeen-Year-Olds

Because no teacher expectations relating to the performance levels of Richfield 17-year-olds were established prior to the reading assessment, determination of the strengths and weaknesses of this age group was based solely on comparison of their scores with those of their peers in similar Minnesota districts.

Only two skills relating to word identification and word recognition were assessed at the 17-year-old level. One (identifying the number of syllables in a word) emerged as a Potential Need, while the other (identifying prefixes and suffixes) emerged as a Potential Strength.

In comparison with their peers in similar districts, Richfield 17-year-olds demonstrated neither strength nor weakness in any of the three specific skills assessed in the category relating to comprehension of words and sentences.

In the category relating to comprehension of longer passages, Richfield 17-year-olds demonstrated Potential Strength in three of the eleven specific skills assessed and a Need in only one. The areas of Potential Strength were in identifying the appropriate inference based on information contained in the passage, identifying bias in writing style and using factual information in the passage to identify viewpoints not directly stated by a writer. The Need was in the skill of recognizing the topic to which a passage relates. Only three items were used to assess this skill.

Of the five specific reading study skills assessed at this age level, none emerged as a Strength, Potential Strength or Need on the basis of comparison with the scores of 17-year-olds in similar districts. Skill in following directions emerged as a Potential Need in terms of this comparison, but only one item was used to assess this skill.

P R E L I M I N A R Y   I N T E R P R E T A T I O N S  
B Y   A G E   G R O U P

26. What implications does the identification of specific strengths and weaknesses have for the Richfield reading program?

It is gratifying to know that so many Strengths or Potential Strengths exist, but because the ultimate goal of the assessment is to improve student performance, attention should be directed toward areas in which students show a Need or a Potential Need. The next step in the assessment--consideration of the implications of the findings--is the task of the Richfield Reading Program Improvement Committee (Appendix B).

While it is not a function of the Richfield Reading Data Analysis Committee to offer specific recommendations concerning the total program, as the members worked to analyze the mass of information collected in the assessment and to record the major findings in this report, they drew some inferences which they believe to be valid and which they hope will be useful as a starting point for the work of the Reading Program Improvement Committee.

Nine-Year-Olds

Richfield 9-year-olds demonstrated only one Potential Need in the two categories of skills relating to word identification and word recognition and to the comprehension of words and sentences. They appear to have a problem in determining the meaning of unfamiliar words on the basis of context. Consideration might therefore be given to the need for increased teaching emphasis on context as a clue to the meaning of

unknown words.

Like their counterparts in similar districts and throughout Minnesota, Richfield 9-year-olds performed much better on items which required them merely to know the rules for word identification and word recognition than they did on items which required them to apply the rules they had learned. Even on these application items, their performance was better than Richfield teachers expected and not significantly different from that of their peers in similar districts. Perhaps a considerable number of 9-year-olds are not yet sufficiently capable of dealing with abstractions to be able to apply rules judiciously. Perhaps, on the other hand, their relatively poor performance may be due to insufficient opportunity to practice the application of the rules.

On the basis of the composite comparison, the skill of recalling details from paragraphs or longer passages was identified as a Potential Need for Richfield 9-year-olds, but they did better on these items than teachers expected. If teacher expectations affect student performance as at least some research indicates, then perhaps the performance levels would improve as teachers raised their level of expectation. Analysis of the errors made suggests another possibility. Richfield 9-year-olds, like students their age in Minnesota, appear to "grab" for answers by reading the words or phrases which constitute the answers from which they are to choose and then selecting as correct the first one of these words or phrases which they find in the passage. This circumstance may perhaps result from the habits formed through excessive experience with the kinds of classroom questions and workbook exercises for which such

"word hunts" do produce the correct answers.

The numerous weaknesses demonstrated by Richfield 9-year-olds in reading study skills would seem to justify a search for causes and possible remedies.

#### Thirteen-Year-Olds

The composite comparison indicated two Potential Needs of Richfield 13-year-olds in the category of word attack skills. One weakness is in identifying the number of syllables in a word. The other is in identifying prefixes and suffixes, where the performance level was below that for the state as well as for similar districts. It would therefore appear worthwhile for those charged with the responsibility of making recommendations to study further the error patterns described in the Research Triangle Institute report and to consider placing greater or different teaching emphasis on these skills in the upper elementary and junior high grades.

Identifying which of the possible meanings of an ambiguous statement is appropriate to the meaning of a paragraph is a problem for Richfield 13-year-olds. Their scores, although only slightly below those of students in similar districts, were considerably below teacher expectations and roughly thirty percentage points lower than their average for the entire reading assessment. The Reading Program Improvement Committee might therefore wish to consider a recommendation concerning the degree of emphasis to be given to this skill and the level of expectation teachers should set for its attainment.

Recalling details from longer passages is one of only three skills in the entire reading assessment in which a Need or Potential Need was identified for both 9- and 13-year-olds in Richfield. While the 9-year-olds exceeded teacher expectations, the 13-year-olds did not meet them, although their performance was ten percentage points higher than those of the 9-year-olds. This circumstance should perhaps be explored further to determine whether the Potential Need is educationally significant and/or whether the teacher expectations were realistic.

Other comprehension skills in which a Potential Need was identified at the 13-year-old level are identifying main ideas, drawing inferences about relationships of ideas in a passage, and identifying words that give clues to the writer's point of view. In any further consideration of these circumstances, it should be remembered that only two items were used to test students' ability to recognize cues to point of view.

The other two skills in which there appears to be a Need or Potential Need for both 9- and 13-year olds fall within the category of reading study skills. The first is interpreting directions. On the three items used to test this skill, Richfield 13-year-olds scored below the level for their age group throughout the state and in similar districts and also below the level teachers had predicted. The second, assessed by only two items, is in answering specific questions of detail on the basis of information presented in graphic form such as charts.

Also related to graphically displayed information are two other reading study skills which may be of potential concern at the 13-year-old level. One assessment item required students to draw inferences from



such information, and two items required them to make judgments about alternative interpretations of such information. On all three items, students' scores were lower than teachers had expected.

Richfield 13-year-olds demonstrated weakness in using guide words and library catalog cards. Each of these skills was measured by eight items, a number considered adequate for judgments based on statistical analysis.

Despite the small number of items used to test some of the specific reading study skills, the overall performance of Richfield 13-year-olds in this category appears to justify further investigation of what is being done to teach these skills in the upper elementary and early junior high school grades.

#### Seventeen-Year-Olds

Although they were less strong in reading study skills than in the other three skill categories, no clear-cut Need was evidenced by 17-year-olds in any specific skill in any of the four major types of reading skills assessed. The temptation is to conclude that the reading problems of Richfield 9- and 13-year-olds largely disappear by the time they are 17-year-olds. It must be remembered, however, that students in all three age groups were assessed during the same school year. Only if the same group of students were assessed at four-year intervals could we be reasonably sure that the growth which appears to occur is not due to a possible change in the characteristics of the Richfield student population or to other factors which are unrelated to the reading program.

27. Will the same groups of students be reassessed at a later date to determine the progress they have made?

If the Minnesota State Assessment Office conducts a second reading assessment in 1977-78, as is presently planned, Richfield will have the opportunity to compare the performance of 9- and 13-year-olds on this first assessment with their performance as 13- and 17-year-olds. Such a comparison should either strengthen or weaken the tentative conclusion that Richfield students improve substantially in reading skills as they move from the elementary to the junior and senior high school grades.

## G L O S S A R Y

- administered** This term refers to the giving of instructions for the exercises and monitoring the students as they participated in the assessment. The people who administered the exercises were especially trained by the Minnesota State Assessment Office. Audio tapes were used to insure uniform directions and time allotments for all students participating in the assessment.
- exercise** Instruments used to assess student reading performance are referred to as exercises.
- federal monies** Reading assessment data collection during the 1973-74 school year was financed from local funds. Analysis of the reading assessment data and other REAP activities are supported by a grant under Title III of Public Law 89-10.
- item** A question to be answered by the application of some specific reading skill. The number and difficulty of items used to assess each such skill varied.
- reliable analysis,  
reliable report** In the judgment of the experts conducting the statistical analysis, a certain proportion of the total population is required in order to have some assurance that results indicate a true picture.
- similar districts** This classification includes all suburbs surrounding Minneapolis, St. Paul and Duluth. In the State report these districts are referred to as MNSOC2.

A P P E N D I X    A

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A P P E N D I X C

The following documents have been used by the Richfield Reading Data Analysis Committee in the preparation of this report. They are available in the District Media Center of the Richfield Public Schools or from members of the committee listed in Appendix A.

Minnesota Educational Assessment Program, A Report to the State Board of Education: An Analysis of the Results of the Minnesota Educational Assessment Program, Year 01 - Reading

Research Triangle Institute (Center for Educational Research and Evaluation), An Analysis of the Results of the Richfield Reading Assessment, 1973-74

Appendices A-Q to the above report, including objectives, exercise items, student subgroup definitions, performance results, Need-Strength tables, Teacher Expectation tables, Teacher Knowledge Inventory, Teacher Inventory of Perceived Capability, materials inventory and instructional emphasis index

A P P E N D I X D

LOCAL EDUCATIONAL AGENCY RECEIVING TITLE III FUNDS

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Further information about this program and/or copies of this report may be obtained from the Office of the Superintendent, Richfield Public Schools, 7001 Harriet Avenue South, Richfield, Minnesota 55423.