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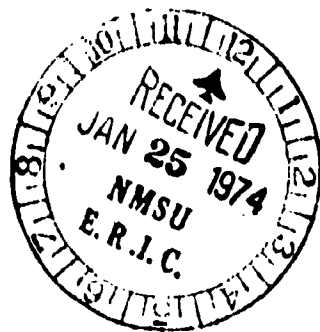
ABSTRACT

This paper presents an evaluation of the Hardin, Montana, School District's Right to Read program. Short descriptions of the results of the evaluation are presented for the areas of paragraph meaning, word meaning, interest/attitude, basic approach, instructional technique, student grouping, availability and skill of reading teachers, nonclassroom personnel available for reading support, outside consultants, nonschool resources, language ability, spelling time spent in program, percent of students served, evaluation, availability and skills of additional personnel, arithmetic concepts, program location in schools, teacher/student organization, existing program started, school library activity, staff reading specialist, dollar resources, and decision making. An appendix is included which presents data for district wide average growth and pretest/posttest grade scores in word meaning, paragraph meaning, spelling, language, and arithmetic concepts; and students' pretest and posttest performances on the Stanford Achievement Test.  
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1972-73 PROGRAM EVALUATION

The Right to Read Program  
School District 17-H  
522 N. Center Avenue  
Hardin, Montana 59034

May 1, 1973

1. Paragraph Meaning - Paragraph meaning is an integral component of student performance that has been measured by the Stanford Achievement Test in this program. The district wide achievement scores were encouraging. The fourth grade gained +1.3 years, while the fifth grade averaged +.9 years, and the sixth grade gained +1.0 years. See appendix A for a break down by grade level.
2. Word Meaning - Word meaning is a relevant index of student performance. This project has measured that quantity by the Stanford Achievement Test. The results of this testing program indicate that average student growth was 1.3 years for the fourth grade, .8 years for the fifth grade, and 1.6 years for the sixth grade. This pattern is supportive of the reading program's activities.
3. Interest/Attitude - Subjective analysis has been the most productive method of measuring this category. The staff has utilized an objective check-off instrument but it appears that the results are of questionable validity. Students have enthusiastically received the gaming devices and the assortment of audio-visual presentations. Bilingual students have indicated via interest and smiles, their support of the bilingual tapes and reading materials. The translation of Crow/English materials shows signs of reaching some of these students. The teachers, program director, and Right to Read Consultant Dr. Alma Bingham have all noticed and commented on the positive response of the students.
4. Basic Approach - The basic approach as outlined in part 5 below has been evaluated quarterly throughout the year. Each teacher has recorded the progress of each student. In addition the program director has reported standardized achievement data for all classes. See appendix A for a break down by grade level.
5. Instructional Technique - The demonstration - performance technique has been used extensively to impart skills through interaction between the teacher and one or more students. These techniques have been observed by both the program director and building principal.

A modified lecture technique has been utilized through use of the discussion group technique. In this approach the teacher "guides" the student by skillful use of questions to discover answers for themselves.

Some programmed instruction has been implemented, primarily through the use of S.R.A. materials.

Supplementary materials are an integral part of reading instruction in most classrooms. This includes use of audio-visual materials purchased through ESEA Title II. Examples of audio-visual material in use include a comprehensive Wollensak Teaching Tape program, and the Borg-Warner Systems 80 Reading Program.

Games have been utilized through implementation of Phonics and Spelling Learning Kits, purchased from the Lyons and Carnehan Company. Student interest is high and has been a very successful part of this program.

6. Student Grouping - Approximately 15% of this program utilizes individualized instruction. That is, the teacher works with each child at regular intervals to check progress and give assistance. Students are given specific materials to meet their needs. After mastering a skill, they are given additional practice or placed in higher level material. In addition this program utilizes small group organization (5 or less students) approximately 15% of the time. Large group instruction (6 or more students) constitutes approximately 30% of this program, while "total class" instruction takes up approximately 40% of the time.

It seems appropriate that individualized instruction should be increased. Therefore the staff development program of the second year's program has been planned around this goal.

7. Availability and Skill of Reading Teachers - Classrooms in this program have available both a classroom reading instructor and ESEA Title I Remedial Reading Teacher. The Remedial Reading Teacher is a specialist, having taken a masters degree in Reading. She is available to grades 4, 5, & 6 and normally works on an individual basis with one to three remedial students.

Teacher skills have been improved through the implementation of two college extension courses. The first entitled "Reading Theory", and the second was entitled "Reading Problems". Staff feed back has been supportive. The second course is currently underway. It will end later in May.

Several publisher supplied workshops have been solicited by the program director. These workshops were held after school and in the evenings. They included the Grollier Company, Scott Foresman Company, and Colburn Company. In addition a staff meeting was held with the Random House Company representative to explain their Criterion Reading Program. It was also possible to ask national Right to Read, Reading Specialist, Dr. Alma Bingham to stage an evening workshop on construction of reading materials. Dr. Bingham provided this workshop in conjunction with a planning visit. The staff was very receptive and felt this workshop was quite worthwhile.

8. Non-Classroom Personnel Available for Reading Support - Non-classroom personnel available for reading support has been maintained through the initial year of this program. These people include principals, curriculum coordinator, school nurse, and vision/hearing/ and speech specialist. Every consideration is being given concerning the proper utilization of these people in support of an effective reading program.

9. Outside Consultants - The program director has effectively utilized outside consulting from several sources at no cost to the Right to Read Program. These representatives have provided introductory meetings to expose staff members to new materials and methods. In addition the publishers from whom major purchases were made have provided staff inservice in order to assure proper implementation and utilization of their materials. Training has been provided by the 3M Company, Grollier Company, Scott Foresman Company, The Borg-Warner Company, and the Colburn Company.

The Teachers Corps has provided staff inservice workshops. These included a weekend session on individualization and teaching by objectives. In addition the Teacher Corps Staff provided training in the use and effective implementation of the Illinois Test of Psycholinguistic Abilities (ITPA).

The ITPA is an instrument used to determine language facility in subjects from 2.5 to 10.0 years of age. The Revised Edition (1968) is a diagnostic test of specific cognitive abilities, as well as a molar test of intelligence. It bears the same relationship to the field of communication and learning disorders that diagnostic reading tests bear to the field of reading. Its object is to delineate specific abilities and disabilities in children in order that remediation may be undertaken when necessary.

In devising the educational prescription materials, it was strongly recommended that the teachers build on the strengths of the child while concomittantly remediating the youngster's deficits. The purpose of such an approach was so that a positive attitude was built in the youngster by the use of success-producing tasks. In addition, remediation procedures selected to correct revealed deficiencies should be of such a nature that the child will initially achieve positive growth which will promote a good self-image.

The following are suggested activities designed to foster learning based upon the subtest of visual sequential memory. (There are eleven other subtests in the ITPA and this activity is presented as an example to illustrate the type of materials in use.)

Visual sequential memory, or visual-motor sequencing, refers to the ability to remember and reproduce a sequence of visual stimuli. If a child showed a deficit in visual sequential memory, teachers followed these guidelines to remediate the deficit.

1. Permit the child to use auditory cues.
2. Permit him to trace when possible.
3. Display a sample outline picture or geometric form. Remove it and have child draw it from memory. Compare with original and allow child to finish or correct his drawing.
4. Cut up a picture in various shapes and have child reproduce in same order. Start with three designs and increase as child becomes proficient.
5. Present a series of letters or numbers on flashcards and have child sequentially reproduce orally or in writing.

6. Cut up pictures for a shopping list of groceries and present child with verbal description and then have child sort the shopping list as presented by teacher.
7. Line up a series of objects, pictures, or toys on the table. Tell the child to look carefully at them. Then, while he closes his eyes, shift the order of the object. Call on a child to replace it in the correct order. Later two or three objects can be shifted.
8. Classification criteria must be pointed out to the child, for example, shape, color, function, material and size. Use only one criterion at a time. Keep the objects simple with very noticable characteristics at first. This gives good practice both in visual memory and in organizational skill.
9. Select a picture with many familiar objects. Expose the picture to the child. Cover it and ask the child to tell as many things as he remembers seeing.

An outside consultant was employed to assist in editing the work of the bilingual transcriber. Through the assistance of this qualified linguist it has been possible to develop a Native Crow translator who is producing bilingual materials.

The National Right to Read, Technical Assistant, Dr. Alma Bingham was able to provide a very informative workshop on the construction and utilization of inexpensive reading materials. Dr. Bingham was able to do this in the evening, in conjunction with a planning visit. There was no additional cost to Right to Read for this workshop.

10. Other Non-School Resources - Other non-school resources available for support of this Right to Read Program have been consistently maintained and improved.

A fund raising drive was staged by the local community and program director, to develop a Reading is FUN-damental program. Reading is FUN-damental is a national program designed to motivate children to read by using a simple device: Give children inexpensive, attractive, paperback books about things they know - people, characters, history, events, ideas that interest them; let them freely choose the books they want from a wide selection approved by educators; let them keep the books.

In most instances, the books they take home are the very first books they have ever owned. For the children served by RIF are among the millions who come from homes where, usually, there are no books, where no one reads for reference, or learning, or just for enjoyment.

These are the children who live on Indian reservations, in rural areas and elsewhere. They are children with no incentive to read. And their futures are predictable-as narrow and unrewarding as the world they live in.



But, RIF has found a way to widen the world of these children. Wherever it is in operation, more children are reading-for fun; and they are learning, too.

RIF's goal is to show children the range of treasure now and in the future, they will find in books. They cannot know what is in them unless they have the books from which to learn.

There are several local civic organizations that have supported this program. These include the Chamber of Commerce, Jacees, Hardin Education Association, and Veterans of Foreign Wars, among others.

The local Elks Club continues to help maintain a Speech Therapy Program, while the Kiwanis supplies support for eye glasses.

11. Language - Language ability, as identified by the Stanford Achievement Test, has been measured in this program. This reading related skill has shown average growth district wide of +.5 years at the fourth grade level, +1.3 years at the fifth grade level, and +1.2 years at the sixth grade level. See Appendix A for a break down by grade level.

12. Spelling - Spelling is a relevant index of student performance as measured by the Stanford Achievement Test. The results of the district wide testing program indicate that average student growth was +1.2 years for the fourth grade, +.6 years for the fifth grade, and +1.3 years for the sixth grade. See Appendix A for a break down by grade level.

13. Time Spent In Program - The program time allotted to reading activities has remained constant for this program. This is appropriate in light of the length of the school day. All fourth graders receive at least 4 hours of in class instruction while some remedial students receive additional help for at least one hour per week. The fifth and sixth grade students receive approximately six hours of in class instruction. Remedial students in these grades have available at least one extra hour per week for supplementary help.

14. Percent Students Served - One hundred percent of the students in grade levels four, five, and six receive reading instruction in this district. Approximately 5% of these students receive special remedial assistance through to ESEA Title I Program. Continued assistance through the ESEA Title I Program is dependent on the federal funding for next year. Wherever possible the district has utilized Crow speaking bilingual aides in the Bilingual Education, ESEA Title I, and E.E.A. Programs. This has been very advantageous to the bilingual students in the program.

15. Evaluation - In developing a comprehensive evaluation program it is wise to formulate specific objectives for the students. This is in the process of being accomplished at the Ft. Smith and Crow Agency Elementary Schools. The Hardin Elementary School is giving consideration to a similar program. Increased emphasis in the second year will be given to this process at the Hardin Elementary School.

Several criterion based programs are currently being considered. These include those by Random House, Fountain Vallies, and the Educational Development Corporation.

At this time records of all individual student's performance are maintained. Each student is informed of his or her progress.

16. Availability & Skills of Additional Personnel - The additional personnel able to provide reading - related services within the classroom include Teacher Corps Interns, Career Opportunity Program Trainees, regular classroom personnel, ESEA Title I Remedial Reading teachers and aides, Bilingual Education Program teachers and aides, and aides provided through the Emergency Employment Act. Their contribution has remained relatively constant throughout the past year. Continued service by some of these people is contingent upon funding developments at the federal level. However it is hoped that the above people will be able to contribute in a similar manner through out next year.

17. Arithmetic Concepts - A district wide assessment of Arithmetic Concepts, as measured by the Stanford Achievement Test, has been conducted by this program. The average growth district wide was +.6 years for the fourth grade, +1.6 years for the fifth grade, and +.4 years for the sixth grade. The performance in this area was less than in any of the other four reading related skills measured by the Stanford Achievement Test. It is felt that performance in this area may improve for grades 4,5, & 6 next year, after implementation of the Science Curriculum Improvement Study, and Elementary Science Study materials. This seems very likely in view of the results obtained by 115 fifth-graders in a study by William J. Coffia of Oklahoma State University in 1971. Mr. Coffia found that a statistical analysis of gains in mathematics as measured by the Stanford Achievement Test was significant for those utilizing the SCIS materials.

18. Program Location in School - The school district teaches Reading as a separate subject through out the system. The fourth grades have self contained classrooms and instruction in Reading is provided by the regular classroom teacher. Departmentalized instruction exists at grades five and six. In this manner teachers with considerable background and experience in Reading are able to concentrate on this area. Each classroom from grades four to six also has available additional reading assistance through the ESEA Title I Program, or Bilingual Education Program, or Teacher Corp Program.

19. Teacher/Student Organization - The district wide pattern provides a single elementary teacher who has multi-subject responsibility. However this is different at the fifth and sixth grade level where Reading is taught in a departmentalized setting. The Reading teachers in the departmentalized classrooms are responsible for teaching reading throughout the school day. Tutoring is provided through instructional aide assistance. These aides are made available through the ESEA Title I Remedial Reading Program, Career Opportunities Program, and Emergency Employment Program.

20. Existing Program Started - The copyright dates of the basic materials in use range from 1965 to 1969. Some new materials are anticipated this year at the primary grades. In addition, similar replacement occurs throughout the district as materials become dated or un-useable. Comprehensive coordination has been accomplished by the district curriculum coordinator. Current development of bilingual materials will continue to better meet the unique needs of each child in the district.



21. School Library Activity - School library resources remains inadequate according to the Standards for School Media Programs by the American Association of School Librarians. However it should be pointed out, as was mentioned by the Right to Read technical assistants, no libraries in Montana, and only a handful nation wide have the resources to meet these high standards. In any case the goals are high and the local district is seeking to improve the library program at every opportunity. Two of the libraries in the district now have aides. In addition a third library was organized, complete with carpeting donated and installed by the Parent Teachers Association.

The districts library program was improved considerably this year by virtue of purchasing over \$5000, additional softwares, *in print and non-print* materials through ESEA Title II funding, in addition to considerable local support. Over all it appears that the local library program is receiving attention, and will continue to improve with time.

22. Staff Reading Specialist - The district employs a qualified specialist in reading through the ESEA Title I Remedial Reading Program. This person has a masters degree in reading and provides full time services, specifically in Reading. The local Right to Read, Program director has utilized the advice and recommendations of this person on several occasions through out the past year.

23. Dollar Resources - The monetary resources available to a school reading program are often diverse, and may be earmarked for specific aspects of the school's reading program. The school district has demonstrated that it regards dollar resources specifically available for reading as a high priority item by continuing to fund the district reading program at a similar dollar per student ratio.

24. Decision Making - In order to allocate or redirect resources for the purposes of developing a more effective reading program, it is necessary to identify the decision makers within a school. It is helpful to know those persons involved in program - related decisions. The evaluation originally established through the needs assessment process indicates that the local district has a successful, and properly functioning system.

**APPENDIX A**

**District Wide Evaluation  
By Grade Level**

**For  
The Right to Read Program  
1972-1973**

District Wide Average Growth  
As Measured by the Stanford Achievement Test  
Pre-test April 1972, Post-test April 1973

<u>Grade</u>	<u>Word Meaning</u>	<u>Paragraph Meaning</u>	<u>Spelling</u>	<u>Language</u>	<u>Arithmetic Concepts</u>
Fourth Grade	+1.3 yrs.	+1.3 yrs.	+1.2 yrs.	+ .5 yrs.	+ .6 yrs.
Fifth Grade	+ .8 yrs.	+ .9 yrs.	+ .6 yrs.	+1.3 yrs.	+1.6 yrs.
Six Grade	+1.6 yrs.	+1.0 yrs.	+1.3 yrs.	+1.2 yrs.	+4 yrs.

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District Wide Pre- / Post-test Grade Scores  
 As Measured by the Stanford Achievement Test  
 Pre-test April 1972, Post-test April 1973

<u>Pre- / Post- test / test</u>	<u>Word Meaning</u>	<u>Paragraph Meaning</u>	<u>Spelling</u>	<u>Lanuage</u>	<u>Arithmetic Concepts</u>
Fourth Grade	3.3/4.6	3.3/4.6	3.6/4.8	3.5/4.0	3.6/4.2
Fifth Grade	4.6/5.4	4.5/5.4	4.6/5.2	4.3/5.6	4.6/6.2
Sixth Grade	4.9/6.5	5.6/6.6	5.4/6.7	5.1/6.3	5.8/6.2

Student Performance As Measured By The Stanford Achievement Test  
 Pre-test Administered April 1972, Post-test Administered April 1973

Grade/ Section	Subject of Test	Pre- test Class Range	Pre- test # Pupils	Pre- test Class Mean	Pre-test, Class Mean Distance From Norm	Post- test Class Range	Post- test # Pupils	Post- test Class Mean	Post-test, Class Mean Distance From Norm	Annual Growth
4/F-0	Word Meaning	H=4.2 L=1.8	6	3.3	- .3	H=5.9 L=2.6	11	3.9	- .7	.4
"	Paragraph Meaning	H=4.6 L=2.5	"	3.7	+ .1	H=7.2 L=2.2	"	4.4	- .2	.7
"	Spelling	H=5.2 L=2.5	"	3.6	0	H=6.0 L=2.5	"	4.4	- .2	.8
"	Language	H=4.8 L=2.7	"	4.1	+ .5	H=6.8 L=2.6	"	4.3	- .3	.2
"	Arithmetic Concepts	H=5.7 L=3.4	"	4.3	+ .7	H=6.5 L=2.5	"	4.5	- .1	.2
5/F-H	Word Meaning	H=7.8 L=2.9	11	5.2	+ .6	H=7.3 L=2.9	14	5.2	- .4	0
"	Paragraph Meaning	H=8.2 L=2.2	"	5.4	+ .8	H=8.4 L=2.6	"	5.6	0	.2
"	Spelling	H=6.2 L=3.1	"	4.6	0	H=10.5 L=4.0	"	5.9	+ .3	1.3
"	Language	H=9.5 L=2.8	"	6.0	+1.4	H=8.0 L=2.7	"	5.1	- .5	- .9
"	Arithmetic Concepts	H=9.5 L=3.0	"	6.2	+1.6	H=7.8 L=3.1	"	5.5	- .1	- .7
6/F-H	Word Meaning	H=6.9 L=3.6	5	4.8	- .8	H=5.9 L=3.9	4	4.7	-1.9	+ .1
"	Paragraph Meaning	H=7.3 L=4.6	"	5.5	- .1	H=5.4 L=4.6	"	5.0	-1.6	- .5
"	Spelling	H=6.6 L=3.4	"	5.1	- .5	H=6.4 L=3.3	"	5.0	-1.6	- .1
"	Language	H=6.3 L=3.1	"	5.3	- .3	H=5.7 L=3.5	"	4.4	-2.2	- .9
"	Arithmetic Concepts	H=7.0 L=4.6	"	5.7	+ .1	H=6.8 L=5.4	"	6.1	- .5	+ .4

Student Performance As Measured By The Stanford Achievement Test  
Pre-test Administered April 1972, Post-test Administered April 1973

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Grade/ Section	Subject of Test	Pre- test Class Range	Pre- test # Pupils	Pre- test Class Mean	Pre-test, Class Mean Distance From Norm	Post- test Class Range	Post- test # Pupils	Post- test Class Mean	Post-test, Class Mean Distance From Norm	Annual Growth
4/C-L	Word Meaning	H=6.4 L=2.3	16	3.4	-.2	H=8.8 L=3.1	16	4.4	-.2	1.0
"	Paragraph Meaning	H=6.4 L=1.7	"	3.3	-.3	H=9.3 L=2.7	"	4.6	0	1.3
"	Spelling	H=5.2 L=2.0	"	3.5	-.1	H=9.5 L=2.8	"	4.9	+.3	1.4
"	Language	H=7.5 L=2.3	"	3.6	0	H=9.5 L=2.1	"	4.3	-.3	.7
"	Arithmetic Concepts	H=5.7 L=1.9	"	3.4	-.2	H=6.8 L=2.3	"	3.9	-.7	.5
4/C-S	Word Meaning	H=3.1 L=1.7	17	2.5	-1.1	H=4.9 L=2.5	20	3.4	-1.2	.9
"	Paragraph Meaning	H=3.9 L=1.7	"	2.4	-1.2	H=3.9 L=1.9	"	2.6	-2.0	.2
"	Spelling	H=4.8 L=1.9	"	2.7	-.9	H=4.5 L=2.2	"	3.2	-1.4	.5
"	Language	H=3.6 L=1.9	"	2.6	-1.0	H=3.8 L=1.5	"	2.4	-2.2	-.2
"	Arithmetic Concepts	H=3.1 L=1.6	"	2.4	-1.2	H=5.2 L=1.9	"	3.2	-1.4	.8
5/C-T, I-T	Word Meaning	H=6.1 L=3.1	12	4.3	-.3	H=8.0 L=3.9	12	5.2	-.4	.9
"	Paragraph Meaning	H=5.5 L=3.1	"	4.1	-.5	H=7.0 L=2.5	"	4.8	-.8	.7
"	Spelling	H=6.0 L=2.8	"	4.0	-.6	H=7.3 L=3.7	"	4.8	-.8	.8
"	Language	H=5.2 L=2.3	"	3.3	-1.3	H=8.4 L=2.7	"	4.5	-1.1	1.2
"	Arithmetic Concepts	H=5.8 L=2.3	"	3.3	-1.3	H=6.6 L=4.0	"	5.0	-.6	1.7



Student Performance As Measured By The Stanford Achievement Test  
 Pre-test Administered April 1972, Post-test Administered April 1973

Grade/ Section	Subject of Test	Pre- test Class Range	Pre- test # Pupils	Pre- test Class Mean	Pre-test, Class Mean Distance From Norm	Post- test Class Range	Post- test # Pupils	Post- test Class Mean	Post-test, Class Mean Distance From Norm	Annual Growth
5/C-F, II-H	Word Meaning	H=7.3 L=2.5	13	4.0	-.6	H=8.0 L=2.7	14	4.8	-.8	.8
"	Paragraph Meaning	H=6.3 L=2.1	"	3.6	-1.0	H=6.5 L=2.8	"	4.6	-1.0	1.0
"	Spelling	H=8.0 L=2.6	"	4.2	-.4	H=7.8 L=3.1	"	4.9	-.7	.7
"	Language	H=4.9 L=1.9	"	2.7	-1.9	H=6.1 L=2.6	"	3.7	-1.9	1.0
"	Arithmetic Concepts	H=5.5 L=2.2	"	3.5	-1.1	H=6.1 L=3.1	"	4.6	-1.0	1.1
6/C-T, I-H	Word Meaning	H=7.3 L=2.5	19	4.3	-1.3	H= L=	18	5.4	-1.2	1.1
"	Paragraph Meaning	H=10.0 L=7.0	"	4.8	-.8	H= L=	"	5.5	-1.1	.7
"	Spelling	H=11.0 L= 2.6	"	4.9	-.7	H= L=	"	6.2	-1.4	1.3
"	Language	H=9.8 L=2.3	"	4.1	-1.5	H= L=	"	5.1	-1.5	1.0
"	Arithmetic Concepts	H=7.6 L=3.1	"	5.2	-.4	H= L=	"	5.8	-.8	.6
6/C-T, II-K	Word Meaning	H=9.0 L=2.5	18	4.7	-.9	H= L=	18	5.8	-.8	1.1
"	Paragraph Meaning	H=10.6 L= 2.4	"	4.9	-.7	H= L=	"	5.8	-.8	.9
"	Spelling	H=11.5 L= 2.2	"	4.8	-.8	H= L=	"	5.8	-.8	1.0
"	Language	H= 7.7 L= 2.4	"	4.2	-1.4	H= L=	"	5.6	-1.0	1.4
"	Arithmetic Concepts	H=8.8 L=3.1	"	5.2	-.4	H= L=	"	5.2	-1.4	0

Student Performance As Measured By The Stanford Achievement Test  
Pre-test Administered April 1972, Post-test Administered April 1973

Grade/ Section	Subject of Test	Pre- test Class Range	Pre- test # Pupils	Pre- test Class Mean	Pre-test, Class Mean Distance From Norm	Post- test Class Range	Post- test # Pupils	Post- test Class Mean	Post-test, Class Mean Distance From Norm	Annual Growth
4/H-S	Word Meaning	H=5.7 L=1.9	18	3.4	-.2	H=8.3 L=3.0	24	5.1	+.5	1.7
"	Paragraph Meaning	H=5.3 L=2.1	"	3.4	-.2	H=7.2 L=3.4	"	4.9	+.3	1.5
"	Spelling	H=6.3 L=2.1	"	4.2	+.6	H=9.0 L=2.8	"	5.3	+.7	1.1
"	Language	H=5.8 L=2.3	"	4.1	+.5	H=8.5 L=2.7	"	4.9	+.3	.8
"	Arithmetic Concepts	H=5.4 L=2.3	"	3.9	+.3	L=6.5 L=2.5	"	4.5	-.1	.6
4/H-F	Word Meaning	H=4.7 L=2.5	19	3.5	-.1	H=6.7 L=3.0	24	4.8	+.2	1.3
"	Paragraph Meaning	H=4.3 L=2.4	"	3.6	0	H=6.7 L=2.7	"	4.7	+.1	1.1
"	Spelling	H=5.7 L=2.4	"	4.1	+.5	H=7.6 L=2.9	"	5.1	+.5	1.0
"	Language	H=6.0 L=2.6	"	3.9	+.3	H=7.5 L=3.0	"	4.6	0	.7
"	Arithmetic Concepts	H=5.5 L=2.3	"	4.0	-.4	H=5.7 L=3.0	"	4.1	-.5	.1
4/H-R	Word Meaning	H=5.1 L=2.2	16	3.6	0	H=6.7 L=2.9	24	4.7	+.1	1.1
"	Paragraph Meaning	H=6.0 L=1.9	"	3.9	+.3	H=6.9 L=2.8	"	4.7	+.1	.8
"	Spelling	H=6.3 L=2.9	"	4.0	+.4	H=7.6 L=3.1	"	5.2	+.6	1.2
"	Language	H=7.5 L=2.1	"	3.3	-.3	H=7.4 L=2.5	"	4.8	+.2	1.5
"	Arithmetic Concepts	H=5.6 L=2.1	"	4.0	+.4	H=6.5 L=2.5	"	4.6	0	.6

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Student Performance As Measured By The Stanford Achievement Test  
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Grade / Section	Subject of Test	Pre-test Class Range	Pre-test # Pupils	Pre-test Class Mean	Pre-test, Class Distance From Norm	Post-test Class Range	Post-test # Pupils	Post-test Class Mean	Post-test, Class Distance From Norm	Annual Growth
4/H-M	Word Meaning	H=5.7 L=1.8	21	3.7	+ .1	H=8.8 L=2.9	24	4.8	+ .2	1.1
"	Paragraph Meaning	H=5.3 L=1.7	"	3.6	0	H=8.0 L=2.2	"	5.1	+ .5	1.5
"	Spelling	H=5.7 L=1.3	"	3.7	+ .1	H=8.0 L=3.2	"	4.7	+ .1	1.0
"	Language	H=5.4 L=1.9	"	3.8	+ .2	H=7.2 L=2.5	"	4.4	- .2	.6
"	Arithmetic Concepts	H=5.3 L=1.5	"	3.8	+ .2	H=7.6 L=2.5	"	4.7	+ .1	.9
5/H-R, I-I	Word Meaning	H=8.5 L=2.7	22	5.0	+ .4	H=9.0 L=4.1	25	6.0	+ .4	1.0
"	Paragraph Meaning	H=9.5 L=3.4	"	5.3	+ .7	H=11.5 L=3.9	"	6.0	+ .4	.7
"	Spelling	H=8.0 L=3.0	"	5.2	+ .6	H=11.5 L=4.0	"	6.2	+ .6	1.0
"	Language	H=7.9 L=2.9	"	4.8	+ .2	H=11.5 L=4.4	"	6.2	+ .6	1.0
"	Arithmetic Concepts	H=9.5 L=3.0	"	5.2	+ .6	H=10.3 L=3.6	"	5.6	- .2	.4
5/H-R, II-N	Word Meaning	H=8.5 L=2.3	23	4.4	- .2	H=7.1 L=2.7	25	5.4	- .3	1.0
"	Paragraph Meaning	H=7.5 L=2.2	"	4.4	- .2	H=10.9 L=2.0	"	5.3	+ .4	.9
"	Spelling	H=9.5 L=2.2	"	4.4	- .2	H=7.6 L=3.3	"	4.8	- .8	.4
"	Language	H=9.5 L=2.2	"	4.3	- .3	H=10.4 L=2.3	"	5.8	+ .2	1.5
"	Arithmetic Concepts	H=6.3 L=3.0	"	4.5	- .1	H=7.3 L=2.2	"	5.2	+ .2	1.3

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Student Performance As Measured By The Stanford Achievement Test  
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Grade / Section	Subject of Test	Pre-test Class Range	Pre-test # Pupils	Pre-test Class Mean	Pre-test, Class Distance From Norm	Post-test Class Range	Post-test # Pupils	Post-test Class Mean	Post-test, Class Distance From Norm	Annual Growth
5/H-R, III-R	Word Meaning	H=7.5 L=2.3	21	4.5	-.1	H=8.0 L=3.8	24	5.6	0	1.1
"	Paragraph Meaning	H=9.5 L=2.4	"	4.7	+.1	H=8.7 L=3.0	"	6.0	+.4	1.3
"	Spelling	H=9.5 L=3.0	"	5.1	+.5	H=10.8 L=3.6	"	5.6	0	.5
"	Language	H=7.9 L=2.6	"	4.4	-.2	H=11.4 L=2.9	"	6.2	+.6	1.8
"	Arithmetic Concepts	H=6.8 L=2.2	"	4.6	0	H=7.8 L=4.6	"	5.4	-.2	.8
5/H-R, IV-K	Word Meaning	H=6.7 L=2.6	22	4.8	+.2	H=9.0 L=3.3	24	5.6	0	.8
"	Paragraph Meaning	H=6.8 L=2.0	"	4.3	-.3	H=10.0 L=3.4	"	5.4	-.2	1.1
"	Spelling	H=6.6 L=2.5	"	4.6	0	H=10.5 L=3.0	"	4.8	-.8	.2
"	Language	H=9.5 L=2.2	"	4.5	-.1	H=11.0 L=2.1	"	6.2	+.6	1.7
"	Arithmetic Concepts	H=8.0 L=2.5	"	4.7	+.1	H=7.3 L=4.0	"	5.4	-.2	.7
6/H-H, I-M	Word Meaning	H=6.9 L=2.5	23	4.8	-.8	H=8.0 L=4.7	23	6.7	+.1	1.9
"	Paragraph Meaning	H=7.8 L=4.2	"	5.7	+.1	H=9.6 L=4.3	"	7.0	+.4	1.3
"	Spelling	H=11.5 L=2.8	"	5.4	-.2	H=11.5 L=4.3	"	6.7	+.1	1.3
"	Language	H=7.4 L=2.9	"	5.2	-.4	H=9.7 L=3.9	"	6.6	0	1.4
"	Arithmetic Concepts	H=7.0 L=4.6	"	5.9	+.3	H=9.5 L=4.0	"	6.4	-.2	.5

Student Performance As Measured By The Stanford Achievement Test  
Pre-test Administered April 1972, Post-test Administered April 1973

Grade / Section	Subject of Test	Pre-test		Pre-test, Class Mean Distance From Norm		Post-test Class Range	Post-test # Pupils	Post-test Class Mean	Post-test, Class Mean Distance From Norm		Annual Growth
		Class Range	# Pupils	Class Mean	Distance From Norm				Class Mean	Distance From Norm	
6/H-H, II-H	Word Meaning	H=7.3 L=2.7	17	5.2	-.4	H=10.0 L=4.7	22	6.8	+.2	1.6	
"	Paragraph Meaning	H=10.6 L=3.2	"	5.9	+.3	H=12.3 L=4.3	"	7.1	+.5	1.2	
"	Spelling	H=9.2 L=3.6	"	5.6	0	H=12.2 L=3.7	"	7.3	+.6	1.7	
"	Language	H=11.7 L=3.7	"	5.9	+.3	H=11.9 L=3.2	"	7.2	+.6	1.3	
"	Arithmetic Concepts	H=8.8 L=3.6	"	6.1	+.5	H=10.3 L=4.0	"	6.5	-.1	.4	
6/H-H, III-B	Word Meaning	H=7.5 L=3.6	23	5.3	+.3	H=9.0 L=4.4	22	6.9	+.3	1.5	
"	Paragraph Meaning	H=10.9 L=3.8	"	6.0	+.4	H=12.0 L=4.1	"	7.1	+.5	1.1	
"	Spelling	H=11.0 L=2.5	"	5.9	+.3	H=12.2 L=4.3	"	7.7	+1.1	1.8	
"	Language	H=8.8 L=3.1	"	5.7	+.1	H=11.1 L=3.5	"	7.0	+.4	1.3	
"	Arithmetic Concepts	H=10.3 L=3.1	"	6.3	+.7	H=11.8 L=4.3	"	6.8	+.2	.5	
6/H-H, IV-N	Word Meaning	H=9.5 L=3.3	20	5.8	+.2	H=12.1 L=3.6	22	7.5	+.9	1.7	
"	Paragraph Meaning	H=11.2 L=2.6	"	6.3	+.7	H=11.7 L=4.1	"	7.3	+.6	1.0	
"	Spelling	H=8.2 L=3.0	"	5.8	+.2	H=11.2 L=4.4	"	7.1	+.5	1.3	
"	Language	H=9.3 L=2.6	"	5.8	+.2	H=10.4 L=3.7	"	6.6	0	.8	
"	Arithmetic Concepts	H=8.5 L=4.3	"	6.2	+.6	H=10.3 L=4.6	"	6.7	+.1	.5	