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J. G. P. WALLER

GATES READING SURVEY

A Study of Standardized Reading Test Results
of Indian Pupils (1965-66)
in the
Federal Schools
of the
Indian Affairs Education Division
Department of Indian Affairs
and
Northern Development

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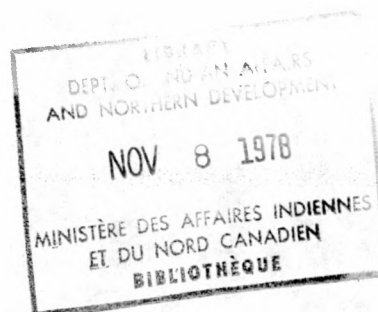
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Rose C. Colliou
Superintendent,
Language Arts Instruction,
Education Division,
Indian Affairs Branch,
Department of Indian Affairs and Northern Development.

Ottawa, 1966.

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Section One	4
Background information	
Regional scores	
Chronological Age	
Section Two	12
Sub-test scores	
The school and its community setting	
Sample schools	
Pupil progress by grades	
Summary	
Section Three	25
Summary and Recommendations	
1. Standardized testing results	
2. Pupil progress	
3. Patterns of achievement on sub-tests	
4. Pupil achievement in multi-graded schools	
5. Pupil achievement in graded schools	
6. Reading achievement and curriculum	
7. Environment and/or limited background experience	
8. Learning English as a second language	
9. Interdependency of educational staff	



Introduction

This report is a study of Indian pupil scores on standardized reading tests. It evaluates through statistical data patterns of reading achievement of pupils in Federal Schools.

Sectional Content

Section one presents a tabulation of the reading grade average by regions. It also provides detailed data to diagnose strengths and weaknesses of the reading program in Federal Schools.

Section two gives detailed statistical data by regions and also includes a study of test results of graded-schools in the Manitoba Region.

The Manitoba Region was selected because general background information on each school was readily available. Also, the various factors particular to each school are fairly representative of other common factors to Federal Schools in other regions.

The last and third section is a summary of significant observations. It also presents recommendations to improve pupil achievement in Federal Schools.

Value and Interest

This report should be of interest to classroom teachers, school principals and senior teachers, supervisory staff and non-Indian school educators at large. Academic staff by schools may gain insight into factors which influence student achievement by regions and by schools.

Supervisory staff of the language arts program may find it useful in assessing supervision needs of their respective regions. Administrative staff will no doubt use its objective data which validates their concern to expand kindergarten programs; to reduce classroom enrolment load; to promote grade consolidation; and amongst other things to eliminate one-roomed schools towards improving pupil performance and achievement. It is also logical that the information contained in this report should become available to Indian parents through school committees or other means of communication with the Indian community.

Selection of Tests

The tests used were the Gates Reading Tests. The Gates series was selected for various reasons some of which are:

- (1) It was used in previous studies conducted in Federal Schools and offers comparative norms from survey to survey.
- (2) It is designed to diagnose specific skills in reading.
- (3) It is relatively inexpensive and easy to administer.
- (4) It is well-known and is used quite extensively in Provincial Schools.
- (5) It has a number of forms which make it convenient to conduct longitudinal studies.

School Classification

The schools were classified according to graded schools and multigraded schools. Graded schools, either day and/or residential, refer to a one or two grade limit per classroom teaching load. Multigraded schools are either one-room or two-room schools, i.e. one-teacher or two-teacher schools.

Geographical Isolation

Isolated or non-isolated schools are defined within the context of transportation facilities to the nearest "Provincial" town. In this report isolated schools are strictly limited to communities with air transportation only.

Language: Indian - English

The language used in the Indian community is referred to as either Indian or English. Communities where children start school with no knowledge of spoken English are referred to as Indian-speaking communities. Communities where children start school with a speaking command of English are called English-speaking communities. In communities where both Indian and English are spoken, the term Indian-English indicates predominance of the Indian language, and English-Indian the predominance of English.

Standardized Test Norms

Some people view with reticence Indian student test results on norms based on a non-Indian population. The answer to this is that establishing norms for the Indian pupil is of direct interest to the statistical researcher. Our use of test norms is to record progress gains from year to year. As yet, we have too little data to compare Indian pupil population with a non-Indian population. However, we anticipate that in the near future we will have sufficient data for such comparisons. Comparisons of Indian and non-Indian test results should then be based on Provincial District norms. These norms would then answer a current question of general concern to most people in Indian education: To what degree are Indian pupils in Federal Schools meeting the standards of Provincial Schools?

SECTION ONE

This section presents a tabulation of the average grade achievement scores in reading. The scores are tabled by regions for grades one to eight inclusive. General statistical information taken from the annual statistical data for the school year 1964-65 is also included in this section. (1) The latter information provides a measure of common background information which validates the reader's comparison of scores by regions.

Seasonal absenteeism of one kind or another is particular to each region. Table 1 indicates the average number of days schools were in operation for the calendar years from 1958-59 to 1964-65 inclusively. Table 2 gives the percentage attendance for the same years.

Table 1. Average Number of School Days (1965-66)

Regions	Type of School	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65
Maritimes	Day	187	185	183.9	186.9	187.2	188.1	188.4
	Res.	180	188	187	187	190	189	189.0
Quebec	Day	177	188	187.2	189.9	187.3	183.9	180.2
	Res.	185	190	180.6	190	180.7	187.3	188.7
Ontario	Day	188	188	188.2	191.8	190	188.5	187.6
	Res.	192	190	194	196.1	194.4	192	187.9
Manitoba	Day	192	195	193.9	194.9	193.4	195	196.9
	Res.	195	194	193.5	196.4	195.7	196	196.5
Saskatchewan	Day	187	188	188.4	188.4	187.0	186.6	185.9
	Res.	181	195	194.4	193.2	191.7	183.4	191.1
Alberta	Day	190	193	192.4	191.9	189.6	191	190.7
	Res.	192	194	192.2	192.6	193.4	191.1	192.6
British Columbia	Day	179	180	189.4	188.6	190.4	185.9	182.4
	Res.	189	177	188.5	195.3	194.1	191.7	185.9
Canada	Res.	187	188	189.5	190.9	190	188.7	187.7
	Day	190	191	191.4	194.2	192.9	190.4	190.5

(1) Indian Affairs Branch, Annual Report 1964-65, Ottawa, 1966

Table 2. Percentage Attendance in Federal Schools

Regions	Type of School	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65
Maritimes	Day Res.	84% 97	84% 97	84% 97	84% 98	84% 98	86% 98	85% 96
Quebec	Day Res.	91 98	92 98	92 99	93 96	93 96	94 96	94 94
Ontario	Day Res.	88 96	88 94	89 96	87 94	87 96	89 95	89 95
Manitoba	Day Res.	82 96	83 96	84 91	83 92	84 91	86 93	86 94
Saskatchewan	Day Res.	84 96	86 97	84 95	82 83	84 94	85 94	85 94
Alberta	Day Res.	88 95	89 95	91 92	88 91	87 90	87 91	87 92
British Columbia	Day Res.	88 97	88 96	90 96	88 96	89 95	90 96	90 95
Canada	Day Res.	87 96	87 96	88 94	86 93	87 94	88 94	88 94

The regional scores were compiled on pupil scores in graded and multigraded schools. Table 3 shows the percentage distribution of multigraded classrooms in each region.

Table 3. Percentage of Multigraded Classrooms in Federal Schools

Regions	Total No. of Schools	Total No. of Classrooms	No. of One-room Schools	No. of Two-room Schools	Total No. of Pupils	Total No. of Classroom Teachers	Percentage of Multigraded Classrooms Teacher/Pupil Population
Maritime	15	51	4	5	1,468	59	27%/25%
Quebec	28	131	9	4	3,423	148	9%/9%
Ontario	101	262	38	23	6,986	321	29%/29%
Manitoba	72	240	20	15	6,443	279	20%/18%
Saskatchewan	69	207	20	16	5,182	235	23%/22%
Alberta	31	165	7	6	3,887	201	9%/9%
British Columbia	74	214	30		5,507	241	28%/27%
Yukon	1	5			104	5	

Table 4. gives the number of grades taught in one-room schools.

Table 4. Number of Grades Taught in One-Room Schools by Regions (1964-65)

No. of Grades	Total No. of Schools	1	2	3	4	5	6	7	8	9 grades
Maritimes	4		1		1		1	1		
Quebec	6	5					1			
Ontario	38	1	8	7	4	3	4	1	8	2
Manitoba	20	5	1	2	2	3	2	3	2	
Saskatchewan	20	4			1	1	4	2	3	5
Alberta	7	2	2	1					1	1
British Columbia	30	5	3		6	2	5	6	3	

From tables 3 and 4, it is evident that classroom enrolment in multigraded schools averages from 30 to 35 pupils.

Table 5 is a comparison between the number of pupils included in this study and the number of pupils enrolled by grade in each region.

Table 5. A Comparison of Number of Pupils Tested and Number of Pupils Enrolled by Grade and by Region (1965-66)

Region		I	II	III	IV	V	VI	VII	VIII
Maritimes	No. Tested	-	-	-	-	-	-	-	-
	Total Enrolment	210	250	192	156	166	153	102	54
Quebec		-	-	-	-	-	-	-	-
		665	506	501	484	389	151	96	12
Ontario		-	-	-	106	94	66	73	31
		1,162	987	949	814	644	521	390	319
Manitoba		801	830	684	540	550	500	340	270
		937	1,007	828	784	735	588	404	296
Saskatchewan		539	443	377	190	200	150	110	80
		771	721	689	621	573	409	301	219
Alberta		519	448	355	210	215	180	115	100
		603	531	488	376	396	367	274	209
British Columbia		1,022	815	646	448	405	322	250	140
		1,014	828	693	707	628	528	433	265

There was no testing done in the Maritimes or in Quebec. Ontario returns can only be considered as sample returns.

In computing the grade average in table 6, decimal fractions were dropped. Point five or above was credited in favour of student scores as a one month gain.

The grade average of grades one, two and three is the combined average of two tests:

1. Gates Word Recognition Test
2. Gates Paragraph Reading Test.

The reading grade average of grades four to eight is the combined average of the three sub-tests of Gates Survey Reading Test:

1. Speed and Accuracy
2. Vocabulary
3. Comprehension

The grade norm at the time of testing in late April and early May in grades one, two and three was established at .8 or 8 months of the 10 month grade year. However, in reading table 6 it is fair to assume that pupils would gain from 2 - 3 months by the end of June.

The grade norms at the time of the October testing in grades four to eight was established at .2 or 2 months of the 10 month grade year.

Table 6. Grade Average Reading Scores by Regions

Expected Norm	SPRING 66			FALL 65				
	1.8	2.8	3.8	4.2	5.2	6.2	7.2	8.2
Grade	I	II	III	IV	V	VI	VII	VIII
British Columbia (Pupil Population)	2.2 (1022)	3.2 (815)	3.9 (646)	3.7 (448)	4.5 (405)	5.7 (322)	6.7 (250)	7.2 (140)
Alberta	2.0 (519)	3.0 (448)	3.6 (355)	4.2 (210)	4.7 (215)	5.4 (180)	6.7 (115)	7.3 (100)
Saskatchewan	2.2 (539)	3.1 (443)	3.8 (377)	3.8 (190)	4.2 (200)	5.6 (150)	6.2 (110)	7.7 (80)
Manitoba	1.9 (801)	2.9 (830)	3.5 (684)	3.8 (540)	4.5 (550)	5.3 (500)	6.3 (340)	7.0 (270)
Ontario	-	-	-	3.3 (106)	4.0 (94)	4.8 (66)	5.8 (73)	6.9 (31)
Quebec	-	-	-					
Maritimes	-	-	-					

Observations from table 6 on pupil reading achievement are:

1. Grade one and grade two pupils meet reading grade standard norms. They also show a 10 month gain for each grade year.
2. Elementary grade pupils show progressive retardation in meeting standards of reading grade achievement. Retardation seems to start at the grade three level.
3. The grades 7 and 8 scores show only slight gains in view of the heavy drop-out factor. At best, the better students of former years who are now in grade 8 show a range of 13 to 5 months, or roughly from 1 year to $\frac{1}{2}$ a year, of grade retardation in reading.
4. There is a striking similarity in grade achievement scores from region to region.
5. The gains in the primary grades and the losses in the elementary grades show similar consistencies, irrespective of the different Provincial curriculums.
6. Grade retardation at the elementary level shows up as a cumulative loss from grade to grade.

The scores in table 6 show the general achievement of pupils in Federal Indian Schools. For more specific information, the Manitoba pupil population was classified according to graded school & multigraded school attendance.

The percentage composition of pupils who attended multigraded schools is shown in table 7.

Table 7. Percentage of Pupils from Multigraded Schools in the Manitoba Region (1965-66)

Grades	I	II	III	IV	V	VI	VII	VIII
Regional Population	801	830	684	540	550	500	340	270
Percentage	34%	32%	34%	28%	29%	31%	-	-
<u>North-Isolated</u>								
Northern Population	224	332	295	280	240	240	190	130
Northern Percentage	50%	54%	50%	36%	41%	40%	-	-
<u>South-Non-Isolated</u>								
Southern Population	577	500	384	240	310	260	150	140
Southern Percentage	31%	26%	32%	24%	25%	27%	16%	

A further breakdown by schools for reading average scores yielded various grade averages by type of school and geographical location.

Table 8. Average Grade Scores in Reading by Types of School and Geographical Location

Grade	I	II	III	IV	V	VI	VII	VIII
Regional Popul. Tested	(801)	(830)	(684)	(540)	(550)	(500)	(340)	(270)
Expected Grade Norm	<u>1.8</u>	<u>2.8</u>	<u>3.8</u>	<u>4.2</u>	<u>5.2</u>	<u>6.2</u>	<u>7.2</u>	<u>8.2</u>
Regional Average (Graded & Multigraded Schools)	1.9	2.9	3.5	3.8	4.5	5.3	6.3	7.0
Graded Schools (North)	2.1	3.0	3.6	3.6	4.2	5.0	5.7	6.5
Graded Schools (South)	2.1	3.1	3.8	4.2	4.8	5.6	6.9	7.5
Regional Graded School Average	2.1	2.8	3.7	3.9	4.5	5.3	6.3	7.0
Multigraded (North)	1.7	2.5	3.3	3.2	4.0	4.2	5.0	5.8
Multigraded (South)	1.8	3.0	3.6	3.6	4.2	4.7	5.3	7.1

In the context of percentage composition of pupils attending multigraded schools as shown in table 7 and grade average scores as reported in table 8 we submit the following observations which are likely applicable to multigraded schools in other regions.

1. The multigraded school population scores considerably lower than the graded school population.
2. The multigraded school scores lower and negatively affect the regional reading grade average.
3. The multigraded Northern schools consistently show lower scores than the multigraded Southern schools.
4. Elementary pupils of Southern graded schools consistently show higher grade scores than those in isolated graded schools of the North.

Table 9. A Comparison by Regions of Average Age-Grade Placement in the Primary Grades - Spring 1966 (C.A. in years and months - 7/8 - 7 years and 8 months)

Regions	I	II	III
British Columbia C.A. - Pupil Pop.	7/6 - (1022)	8/11 - (815)	10/4 - (646)
Alberta	7/7 - (519)	9/1 - (448)	10/8 - (355)
Saskatchewan	7/10 - (539)	9/5 - (443)	10/9 - (377)
<u>Manitoba Region</u>	7/5 - (801)	8/9 - (830)	10/2 - (684)
Graded Schools	7/0 (801)	8/6 (830)	9/11 (684)
Multigraded Schools	7/5	9/0	10/6
<u>Northern Schools</u>			
Graded	7/0	8/4	9/11
Multigraded	7/7 (204)	8/9 (300)	10/5 (275)
<u>Southern Schools</u>			
Graded	7/0	8/8	9/10
Multigraded	7/3 (577)	9/0 (500)	10/6 (384)

The figures in table 9 lead to the following observations:

1. Grade one pupils show good age-grade placement.
2. The grade two population of Alberta and Saskatchewan has a more pronounced retardation in age-grade placement. It is close to that reported for multigraded schools.
3. Grade three pupils either started school at 7 years of age; or, took at least four years of schooling to cover the primary curriculum; or, the regional average age is affected by the multigraded population.
4. The multigraded school population apparently takes four years to cover the primary grade curriculum. Thus, pupils in multigraded schools are not only retarded in reading achievement but also in age-grade placement.

Table 10.

Gain in Months by Grade Year and by Regions (1965-66)
 (Actual gain in Months per Grade Year/Expected gain of 10 months per Grade Year)

From end of grade -- to end of gr. <u>Grade</u> →	(1 to 2) IIInd	(2 to 3) IIIrd	(3 to 4) IVth	(4 to 5) Vth	(5 - 6) VIth	(6 - 7) VIIth
British Columbia Region	10/10	7/10	8/10	12/10	10/10	5/10
Alberta Region	10/10	6/10	5/10	7/10	13/10	5/10
Saskatchewan Region	9/10	7/10	4/10	14/10	6/10	15/10
<u>Manitoba Region</u>	10/10	6/10	7/10	8/10	10/10	7/10
Graded	10/10	7/10	6/10	8/10	10/10	7/10
Multigraded	10/10	7/10	7/10	4/10	7/10	13/10
Northern Average	9/10	7/7	8/10	5/10	8/10	8/10
Graded	9/10	6/10	8/10	8/10	7/10	8/10
Multigraded	8/0	8/10	6/10	2/10	8/10	8/10
Southern Average	11/10	7/10	6/10	6/10	10/10	12/10
Graded	10/10	7/10	6/10	8/10	13/10	6/10
Multigraded	12/10	6/10	6/10	5/10	6/10	18/10

Table 10 is significant.

1. It pin points incipient retardation at the grade three level where the pupil gain in months ranges from 6 to 8 months out of a 10 month year.
2. Similarly, the grade 4 year gain in months is consistently lower than the expected 10 month gain.
3. These observations point to inherent weaknesses in the reading program of grades 3 and 4.
4. The gains in grades 5, 6, and 7 per grade year vary from grade to grade and from region to region. This may also be indicative of differences in curriculum course content and/or particular factors of classroom instruction.
5. The loss in months per grade year is serious when one considers cumulative retardation over a period of years.

SECTION TWO

Statistical data can yield essential information over and beyond the mere tabulation of data. It can be used to reveal specific weaknesses and strengths of pupil reading achievement to deal with problem areas. The following pages present a diagnostic study of the sub-test scores from which the reading grade averages were derived. The sub-test scores on word recognition skill and paragraph reading for the primary grades appear in table 11. The sub-test scores on speed and accuracy, vocabulary, and comprehension skills are recorded in table 12.

- Sub-tests: Grade 2 - Primary Word Recognition - PWR
 Primary Paragraph Reading - PPR
- Grade 3 - Advanced Word Recognition - AWR
 Advanced Paragraph Reading - APR

Table 11. Sub-test Scores of Reading Grade Average by Regions
 Grades I - III (Spring 1966)

Grade	Expected Norm - 1.8					Expected Norm - 2.8					Expected Norm - 3.8				
	PWR - Prim. Word Rec. PPR - Prim. Par. Rdg. I					AWR - Adv. Word Recog. APR - Adv. Par. Rdg. II					AWR - Adv. Wd. Recog. APR - Adv. Par. Rdg. III				
Tests	No.	CA	PWR	PPR	AVE.	No.	CA	AWR	APR	AVE.	No.	CA	AWR	APR	AVE.
British Columbia	1022	7/6	2.3	2.1	2.2	815	8/11	3.3	3.1	3.2	646	10/4	3.8	3.9	3.9
Alberta	519	7/7	2.0	1.9	2.0	448	9/1	3.1	3.0	3.0	355	10/8	3.6	3.5	3.6
Saskatchewan	539	7/10	2.2	-	2.2	443	9/5	3.1	-	3.1	377	10/9	3.8	-	3.8
<u>Manitoba</u>	801	7/5	2.0	1.8	1.9	830	8/11	2.7	2.9	2.9	684	10/3	3.5	3.5	3.5
Northern	509	7/4	2.0	1.8	1.9	440	8/10	2.5	2.6	2.6	334	10/4	3.3	3.3	3.3
Southern	292	7/6	1.9	1.8	1.9	390	9/0	3.0	3.1	3.1	350	10/1	3.7	3.6	3.6

In table 11 there is consistent correlation between the two primary grade sub-tests. The reading average is therefore an indication that the primary reading skills are being developed on sound teaching procedures and good program planning.

However, there is a slight lag in the grade 3 word recognition skill. This may be an indication teachers may take it for granted that pupils have sufficient ability to read new words and tend to overlook the need for re-reinforcement. Or it may also mean pupils need to enrich their vocabulary through extensive extra-curricular reading. This seems particularly applicable in the case of isolated schools.

Table 12. Gates Sub-test Results on Speed, Vocabulary and Comprehension by Regions - Fall 1965

Expected Grade Norm	IV - 4.2	V - 5.2	VI - 6.2	VII - 7.2	VIII - 8.2
SPEED AND ACCURACY/GRADE AVERAGE					
British Columbia	3.9/3.7	5.1/4.5	6.4/5.7	7.7/6.7	8.0/7.2
Alberta	4.2/4.2	4.8/4.7	6.2/5.4	8.2/5.4	8.4/7.3
Saskatchewan	4.2/3.8	4.5/4.2	6.5/5.6	7.3/6.2	8.9/7.7
Manitoba	3.9/3.8	4.8/4.5	6.0/5.3	7.0/6.3	7.9/7.0
Ontario	3.6/3.3	4.4/4.0	5.3/4.8	6.4/3.8	7.2/6.9
VOCABULARY/COMPREHENSION					
British Columbia	3.7/3.7	4.4/4.5	5.2/5.4	5.9/6.6	6.7/6.9
Alberta	4.4/4.1	4.4/4.9	4.9/5.1	5.6/6.3	6.5/7.1
Saskatchewan	3.6/3.6	4.2/4.1	4.7/5.5	5.4/5.9	6.5/7.6
Manitoba	3.7/3.7	4.3/4.4	4.9/5.0	5.8/6.4	6.3/6.8
Ontario	3.2/3.0	3.9/3.7	4.5/4.5	5.5/5.5	6.4/7.1

Observations derived from table 12 are:

1. In most cases the speed and accuracy test results are close to grade norm.
2. Grade average scores indicate there is a close correlation between vocabulary and comprehension average scores.
3. Lower scores on vocabulary and comprehension tests negatively affect the reading grade average, for some grade levels.
4. The variations in grade vocabulary and comprehension scores, from region to region are slight, for most grades.
5. Irrespective of provincial curriculums, Indian pupils need special attention in vocabulary and comprehension skills at all grade levels. The low scores might be interpreted in the context of the English language handicap of Indian pupils and/or isolation factors.

The School and Its Community Setting

Most teachers recognize their own predilection for teaching a specific grade; a preference for a particular subject; or a particular age-group. Similarly, a number of teachers expect different standards of pupil achievement depending on the community in which their school is located. In this report we do not negate or support the aforementioned point, but we do consider it essential to provide background information on the school and its community setting. This should enable teachers and teaching staffs to interpret their pupils' reading achievement scores in the light of similar or different school and community settings. It should also establish a basis for discussion and evaluation of school and community factors to plan for a more dynamic school program.

For instance, are we prepared as teachers to recognize that pupils in schools of isolated communities show as commendable reading achievement scores as pupils of schools in semi-isolated or non-isolated communities? Again, there is little value in simply recognizing the fact on a "yes" or "no" answer. The value of such a question rests on a discussion-study and the ensuing evaluation arising out of the discussion which may give rise to probing questions such as:

1. Is the Indian community an entity in itself immune to any significant influence from the adjacent "White" communities? and/or
2. Is the school an entity in itself and quite removed from community influence? and/or the
3. Does/instructional-learning approach in Federal Schools lack vitality and interest or does it reflect passivity and acceptance of below average pupil performance? and/or
4. Are there specific known factors in the school itself which can account for losses or gains in pupil reading achievement by grade and by year?

It is quite likely that pupil reading achievement is affected by a combination of factors, some of which are complex and some of which are quite specific. Identification of these factors at the local school level and their evaluation, in terms of the "Why? How? and When?" of their significance, is essential to planning towards a reading program in the school. A sound evaluation of school-community setting by each school staff is essential to eliminate negative factors and to capitalize on positive points towards improving the reading achievement of pupils.

Thus, in the past, underachievement of pupils was often blamed on the community. Today, the question is: What is the school doing to help children to overcome the community limitations? Are teachers in Federal Schools keenly aware of community limitations which some of their colleagues face and who nevertheless manage to get as good standards of pupil achievement as those in communities who offer more advantages of modern living background experiences.

Background information on nine schools in one Region may help elucidate on school-community factors affecting pupil reading achievement. The schools were grouped accordingly:

1. Schools A,B,C,D - Northern, isolated, Indian speaking communities.
2. Schools E,F - Southern, semi-isolated, Indian-English speaking communities.
3. Schools G,H,I - Southern, non-isolated, English-Indian speaking communities.

Schools A, B, C, and D
(Northern Isolated Schools)

The Northern Indian communities in which Schools A, B, C, and D are located have these points in common.

1. Transportation to and from these communities to "white" settlements is by air schedule only.
2. There are no gravel roads on the reserves. People follow "trails" from one pocket to another pocket of homes. The lay-out of each settlement is generally scattered or spread out. There is no regular school transportation.
3. The white community living on or adjacent to the Indian reserve is made up of teachers, nursing and agency personnel, missionaries, and storekeepers. The Indian community is permanent; the white community is transient.
4. Electrical services for the Indian community are nil. Television reception is not available.
5. Three of the graded schools have multigraded "satellite" schools around them.
6. Most communities are served by two or more Church denominations.
7. The economy of the people is based on fishing, trapping and occasional seasonal jobs.
8. The settlements are surrounded by bush, water and muskeg.
9. The Indian communities are all Indian-speaking. Pupils start to school with no knowledge of English.
10. Three of the schools eliminated the "beginner" year in September of 1962. The new pupils covered the grade one curriculum program during the first year of school.
11. All four schools have had regular classroom supervision from field staff as of September 1963.

All four schools had formal oral English instruction for first year pupils. Formal teaching of oral English in grades 2 - 6 is in progress since February 1964. Oral English instruction was started as teacher participation in action research to prepare an oral English guide for teachers in Federal Schools.

Particulars of each School

School A

Pupil enrolment consists of both residential and day pupils from grades 1 to 8. Overcrowded classrooms were as recent as 2 years ago. The school has kindergarten classes since 1962-3. In mid-year of 1965-66, half of the grade 3 population was accelerated to grade four. Academic leadership for the year 1964-65 was very poor.

School B

(Up to June 1965) This school had residential and day pupil attendance from grades 1 to 8. Teacher turn-over has been rather low. As of September 1965, enrolment mostly consists of residential pupils.

School C

This school has a day pupil enrolment only.

1. As recently as 12 years ago teaching was on a seasonal basis.
2. As recently as four or five years ago all pupils received multigraded schooling.
3. In September of 65 grade consolidation at the grade 3 level came into effect.
4. A regular kindergarten class was started as of September 1965.

This school has had permanent direction for the past 8 or 9 years.

School D

This school has a day pupil enrolment only. It does not have multigraded schools around it. It has had low teacher turn-over over the years. As recently as 3 years ago, the teaching staff lacked effective leadership. A kindergarten class was opened in September of 1965.

Schools E and F
(Semi - isolated; Indian - English)

Schools E and F have these points in common.

1. Transportation to and from these Indian communities is via highway. There is a gravel road on the reserve.
2. The Indian community is adjacent to rural "white" communities. The nearest large town is approximately 40 miles away. Communication to these towns is for shopping outings, seasonal work, medical attention and other incidentals. The Indian community does not participate in "white" community activities.
3. There are no multigraded schools around these two schools. Both schools started out as mission schools and have a school history of at least 50 years and over.
4. The Indian adult speak Indian or basic English. Indian is generally spoken in the home. In school E, a few school beginners speak English. In school F, most school beginners are non-English speaking.

5. Few Indian homes have electricity. Television reception is fairly good.
6. Income is based on seasonal fishing and seasonal employment away from the reserve.
7. Both schools have day and residential pupil enrolment. The present academic leadership is positively oriented and teaching staff has an average teacher turn-over. Bus services are in full operation since September 1965. Kindergarten classes were opened in September of 1965. Oral English has been taught as a second language in both schools since February of 1964.

Schools G, H, and I
(Non - isolated - English - Indian)

The Indian communities in which Schools G, H, and I are located have the following advantages.

1. Transportation to and from these communities is by paved highway with daily bus schedules to and from Winnipeg, a distance of approximately 100 miles. Both communities live near adjacent "white" communities. Communication between the Indian and white communities is quite similar to that existing between rural white communities.
2. The Indian adults speak English and Indian. English is the predominant language. Most children have a fairly good command of basic English on starting to school.
3. Most Indian homes are serviced by electricity. Television reception is good and is viewed in most homes.
4. The economic life of the community in which Schools G and H are located is based on year-round employment at a paper mill or seasonal work in the area. The Community in which School I is located raises cattle. Seasonal or permanent employment in towns or the city is another source of income.

In all three schools, the former beginner year was eliminated in the school year of 1962-63. Pupils are enrolled in grade one on starting to school. All three Schools opened kindergarten classes in the school year 1965-66. All three schools taught oral English in grade one in 1962-63. Instruction in oral English for grades 2 - 6 started during the second term of the 1963-64 school year. School bus transportation has been in operation for a number of years. The teaching staff is quite permanent.

School G

This school enrolls both residential and day school pupils. During the past few years conflicts over academic staff leadership between the residential school administrator and the head teacher were painstakingly alleviated in favour of head teacher leadership.

School H

The local school committee voted in favour of grade consolidation for a scattering of one-room and two-room schools within a 2 to 3 mile radius. Academic leadership is positive and curriculum oriented.

School I

This school has grade consolidation in a scattering of one and two-room schools within a radius of a few miles. The set-up restricts effective teacher leadership and limits coordination of teacher effort which is quite active.

In schools A, B, E, F, and G the proportion of residential and day school students varies from school to school but remains fairly constant from year to year.

Tables 13 and 14 which follow should be read in the light of the foregoing background information for each school.

Table 13. A Comparison of Primary Grade Scores in Graded Schools of English-speaking and Non-English-speaking Communities - SPRING 66

	I Expected Norm 1.8				II Expected Norm 2.8			III Expected Norm 3.8		
	Pre-1 Year	No. Tested	Av. C.A.	Ave. Rdg.Gr.	No. Tested	Av. C.A.	Ave. Rdg.Gr.	No. Tested	Av. C.A.	Ave. Rdg.Gr.
<u>Northern Manitoba</u> (Non English - speaking Communities)										
School A - Res. & Day	Yes	37	7/0	2.5	37	8/7	3.0	51	10/2	$\sqrt{3.5}$ and $\sqrt{3.9}$
B* - Residential	No	21	7/1	3.0	29	8/4	3.6	27	10/3	3.9
C - Day only	No	33	6/4	1.8	36	8/2	2.6	42	9/8	3.1
D - Day only	No	22	6/9	2.0	32	8/3	2.7	27	9/7	3.5
<u>Southern Manitoba</u> (Indian - English - speaking Communities)										
E - Res. & Day	No	26	7/5	1.9	37	8/11	2.8	16	9/11	3.3
F - Res. & Day	No	49	7/6	2.0	44	9/11	2.7	54	10/8	3.8
(English - Indian - speaking Communities)										
G - Res. & Day	No	25	6/10	2.2	27	8/4	2.8	34	9/8	3.9
H - Day	No	32	7/0	2.0	26	8/3	3.6	34	9/3	3.8
I - Day	No	43	7/4	2.1	43	8/10	3.1	29	9/10	3.8

* The validity of test results in this school was in doubt. These scores were not included in calculating the regional grade average scores.

Table 13 is significant.

1. Pupil achievement scores, ^{for} grades one and two show little variation in terms of school community setting.
2. The discrepancy between grade 3 pupils in the North and grade 3 pupils in the South raises an interesting point. Wherever a specific pattern shows up, it should be possible to find specific ways of eliminating or reducing the negative factors which affect the lower scores.

Other observations in connection with table 13 are:

3. Pupils in the North who had kindergarten training scored significantly higher than grade one pupils in the Southern Schools.
4. The grade 1 and 2 scores in Schools C & D are good considering the younger age factor and the overcrowded classroom conditions which prevailed in these two schools.
5. Grade 3 pupils in school C had the lowest scores. The September 65 grade 3 consolidation from surrounding multigraded schools seems a legitimate interpretation of the low scores.
6. Grade 3 pupils in School E have a school history of a poor start in school and rather rigid classroom instruction.

In conclusion, barring the Northern factors of grade school consolidation at the grade 3 level; of overcrowded classroom conditions; of younger age groups; the differences in pupil achievement in Northern or Southern Schools are prognostically significant. On the one hand, this does not deny the fact that a large number of pupils have an English language handicap. On the other hand, it reflects effective classroom teaching and good field supervision. It also speaks in favour of the modified language arts program which stresses the teaching of oral English and a synthetical phonics approach to word recognition skill.

Pertinent observations relative to table 14 which follows are:

1. Except for Schools C and D, Northern schools and Southern schools show similar patterns of grade achievement scores for grades 4, 5, and 6. Also unlike the primary grade scores, retardation appears in most sub-tests scores of vocabulary and comprehension.
2. Pupils in Schools C and D consistently show lower scores than pupils in other schools from grades 4 to 8. The lower scores of School D may be due to the multigraded situation which existed in the area until quite recently. Environment and language handicap may also be crucial negative factors to both schools.
3. The grade 7 scores of Schools A, B, C, and D are lower than the grade 7 scores of schools in the South. Schools A and B may reflect the influx of pupils from multigraded schools who attend a graded school for the first time to continue their schooling.
4. The grade eight scores of all schools except in Schools C and D are quite similar. There is a first indication that lower grade scores could be attributed to home conditions on the basis that the grade 8 scores show considerable improvement over the grade 7 scores in Schools A and B. However, they could also be due to improved learning conditions from multigraded school attendance to graded school enrolment.

The persistent grade to grade retardation in vocabulary and comprehension, in Southern schools as well as in isolated Northern schools leads to this question. If even English speaking pupils are weak in language expression how much greater must be the need in most Indian schools to develop vocabulary enrichment and verbal thinking ability through pupil self-expression? Recognition of the mediocre English of elementary grade pupils should lead to recognition of the need to improve the English expression of Indian pupils.

Table 14.

A Comparison of Elementary Grade Scores of Graded Schools
in Northern and Southern Communities - Fall 1965

Schools	Gr. IV (4.2) Norm				Gr. V (5.2) Norm				Gr. VI (6.2) Norm				Gr. VII (7.2) Norm				Gr. VIII (8.2) Norm			
	No. of P.	Sp.	Voc. Comp.	Gr.Av.	No. of P.	Sp.	Voc. Comp.	Gr.Av.	No. of P.	Sp.	Voc. Comp.	Gr.Av.	No. of P.	Sp.	Voc. Comp.	Gr.Av.	No. of P.	Sp.	Voc. Comp.	Gr.Av.
A	35	4.3	$\frac{3.9}{3.7}$	4.0	33	4.9	$\frac{4.4}{4.5}$	4.6	26	5.6	$\frac{4.9}{5.0}$	5.2	49	5.9	$\frac{5.3}{5.4}$	5.5	20	7.6	$\frac{7.1}{7.2}$	7.3
B	19	3.9	$\frac{3.8}{3.8}$	3.8	23	6.2	$\frac{5.0}{5.4}$	5.5	31	4.5	$\frac{4.1}{4.2}$	4.6	31	5.9	$\frac{5.3}{5.1}$	5.4	23	8.4	$\frac{7.1}{7.8}$	7.4
C	50	3.2	$\frac{3.3}{3.1}$	3.2	28	3.6	$\frac{3.7}{3.5}$	3.6	25	5.7	$\frac{4.4}{4.6}$	5.4	32	5.7	$\frac{5.1}{5.8}$	5.4	16	6.0	$\frac{5.8}{6.5}$	7.1
D	27	3.7	$\frac{3.5}{3.2}$	3.5	23	3.8	$\frac{3.9}{4.1}$	4.0	29	5.6	$\frac{4.5}{4.9}$	5.0	22	6.5	$\frac{5.2}{5.6}$	5.8	14	8.3	$\frac{6.1}{6.7}$	7.0
E*	17*	5.1	$\frac{5.5}{4.2}$	4.9	35	5.2	$\frac{5.2}{4.5}$	5.0	29	5.5	$\frac{5.1}{5.1}$	5.2	12	8.2	$\frac{7.1}{6.3}$	7.2	14	9.7	$\frac{7.8}{6.7}$	8.0
F	30	3.9	$\frac{3.6}{3.5}$	3.7	56	4.7	$\frac{4.2}{4.2}$	4.4	16	5.6	$\frac{4.9}{5.3}$	5.3	18	9.1	$\frac{6.8}{7.1}$	7.7	18	9.1	$\frac{6.8}{7.1}$	7.7
G	29	3.6	$\frac{3.6}{3.3}$	3.5	34	4.4	$\frac{4.4}{4.5}$	4.4	30	5.7	$\frac{5.3}{5.4}$	5.5	24	6.4	$\frac{6.2}{6.6}$	6.4	21	8.0	$\frac{7.3}{7.1}$	7.5
H	48	4.7	$\frac{4.2}{4.3}$	4.4	52	5.7	$\frac{4.7}{4.8}$	5.0	26	7.3	$\frac{6.0}{6.2}$	6.5	24	8.2	$\frac{6.1}{6.6}$	7.0	23	10.5	$\frac{7.7}{8.2}$	8.8
I	30	4.2	$\frac{4.1}{4.1}$	4.1	23	5.9	$\frac{4.9}{5.2}$	5.3	16	6.3	$\frac{5.2}{5.3}$	5.6	8	8.6	$\frac{6.1}{6.6}$	7.1	8	8.4	$\frac{6.4}{7.3}$	7.4

* The validity of test results was in doubt. These scores were not included in figuring the Regional average.

So far, no reference was made in this study to report on pupil effort. Tables 15, 16 and 17 were drawn up to assess pupil effort or gains in months by grade year in the various sub-tests.

Table 15. Speed Gain in Months by Grade Year on Non-cumulative Scores (Fall 1965) *

Schools	Expected Gain	Grade 4 scores	Grade 5 scores	Grade 6 scores	Grade 7 scores - gain
A	10	6 months	7	3	17
B	10	23	-17	14	25
C	10	4	10	11	3
D	10	1	18	9	18
E	10	1	3	27	15
F	10	8	9	35	0
G	10	8	13	7	6
H	10	10	16	9	23
I	10	17	4	23	-2

Table 16. Vocabulary Gain in Months by Grade Year on Non-cumulative Scores (Fall 1966)

Schools	Expected Gain	Grade 4 scores	Grade 5 scores	Grade 6 scores	Grade 7 scores
A	10	5 months	5	4	18
B	10	12	-9	12	19
C	10	4	7	7	7
D	10	4	6	7	9
E	10	-3	-1	20	7
F	10	6	7	19	0
G	10	8	7	9	11
H	10	5	13	1	16
I	10	8	3	9	3

Table 17. Comprehension Gains in Months by Grade Year on Non-cumulative Scores (Fall 1965)

Schools	Expected Gain	Grade 4 scores	Grade 5 scores	Grade 6 scores	Grade 7 scores
A	10	8 months	5	4	18
B	10	16	-2	-1	27
C	10	4	11	12	7
D	10	9	8	7	11
E	10	3	6	12	4
F	10	7	11	19	0
G	10	12	9	12	5
H	10	5	14	4	16
I	10	11	1	13	7

Tables 15, 16, and 17 are self-explanatory. All schools followed the same grade curriculum courses. Pupil gains or losses vary by schools and by grade year, irrespective of geographical areas. In many cases vocabulary and comprehension gain in months per grade year in Northern Schools is comparable to or better than in schools of English speaking areas of the South.

... 21

* Calculated from table 14. Grade 4 gains based on difference between grade 4 and grade 5 scores (6.2 - 3.9 = 23 months) for speed. Similarly, for all other gains per grade year.

Table 18. A Comparison of Progress Gains on Sub-Tests by Regions and by Grade Schools vs. Expected Gain in Months per Grade Year (Speed/Vocabulary/Comprehension/Expected gain in months)

Regions	Grade 4 Year	Grade 5 Year	Grade 6 Year	Grade 7 Year
British Columbia	12/7/8/10	13/8/9/10	13/7/12/10	3/8/3/10
Alberta	6/0/8/10	14/5/2/10	20/7/12/10	2/9/8/10
Saskatchewan	3/6/5/10	20/5/14/10	8/7/4/10	16/11/17/10
Manitoba	9/6/7/10	12/6/6/10	10/9/14/10	9/5/4/10
Ontario	8/7/7/10	9/6/8/10	11/10/10/10	8/9/16/10
<u>Sample Schools</u>				
A	6/5/8/10	7/5/5/10	3/4/4/10	17/18/18/10
B	23/12/16/10	17/-9/-2/10	14/12/-1/10	25/19/27/10
C North	4/4/4/10	10/7/11/10	11/7/12/10	3/7/7/10
D	1/4/9/10	18/6/8/10	9/7/7/10	18/9/11/10
E	1/-3/3/10	3/-1/6/10	27/20/12/10	15/7/4/10
F	8/6/7/10	9/7/11/10	35/19/19/10	0/0/0/10
G South	8/8/12/10	13/13/9/10	7/1/12/10	6/16/5/10
H	10/5/5/10	16/13/14/10	9/1/4/10	23/16/16/10
I	17/8/11/10	4/3/1/10	23/9/13/10	-2/3/7/10

Table 18 should be studied closely with key questions in mind.

Regional Scores

1. Each region follows a different curriculum. Is this reflected in the regional scores?
2. What patterns are indicative of over-emphasis or underemphasis in the sub-test skills?
3. Which of the two skills show more consistent gains, vocabulary or comprehension?
4. To what factors can we attribute gains OVER the 10 month expected gain? BELOW, the 10 month expected gain?

Sample Schools (Same curriculum)

1. Speed

What factors account for a range of 1 to 35 months gains from one school to another?

2. Vocabulary

What factors account for an average 4 - 8 month gain in grades 4 and 5 as compared to a range of 0 to 19 months for grades 6 and 7?

3. Comprehension

What factors influence the three basic patterns of vocabulary and comprehension gains?

- a) Comparative gains in V/C Ex. 5/5, 6/7, 19/19
- b) Vocabulary gains higher than comprehension gains.
V/C Ex. 12/-1, 20/12; 16/5
- c) Comprehension gains higher than vocabulary gains.
V/C Ex. 11/17, 19/27, 3/7-

4. What factors were present to yield high gains in one grade and low gains in the next?

The aforementioned questions seem to localize the problem in the classroom teaching-learning situation. This being the case, a school staff must necessarily study grade weaknesses and strengths in each school. This study should necessarily be pupil oriented with a view to recommending a planned program to improve the reading achievement of pupils. Such a program may have to be comprehensive enough to necessitate:

- a) Modifying the current reading program.
- b) Stressing library reading.
- c) Correlating reading in all the subject areas.
- d) Wise budgeting of time devoted to particular areas of the reading program, as well as grouping patterns.
- e) Re-evaluation of teaching methods.
- f) Assessing the value of workbook assignments.
- g) Wide use of reference reading skills.
- h) Stress on vocabulary and comprehension.
- i) Fostering a classroom atmosphere conducive to active pupil discussion.
- j) Promoting extensive professional reading and regular teacher meetings.
- k) Cultivating a teacher team spirit to discuss mutual problems of academic concern out of professional responsibility.
- l) Others.

SUMMARY

Development and support of reading programs calls for re-assessment and progressive evaluation. Pupil gains in reading achievement cannot be expected to happen over-night. But, significant gains from year to year are possible and are expected wherever and whenever there is consistent and cooperative effort to implement necessary changes in existing programs. These changes may be in terms of program content and/or teaching methods.

The standardized testing program is essential to the reading program in Federal Schools. Judicious use of test results can give valuable information towards improving the teaching-learning situation in the respective schools. Thus, we must orient our thinking to assess pupil reading achievement on specifics rather than generalities. Testing results of the reading program must be used for the benefit of the individual child.

It is beyond the scope of this report to detail and specify how each individual child can be helped to improve in reading achievement, a key factor in his academic success. The report, however, has identified a number of problem areas which supervisory staff in cooperation with teaching staff initiative should bear in mind in planning for more effective reading programs in the individual schools. At all times, each and every teacher can and should be involved in promoting the reading progress of each and every individual pupil.

In brief, the report provides us with essential information to assess the reading achievement of pupils in Federal Schools.

1. It has established similarities and differences in achievement by grades and by regions.
2. It has localized grade difficulty levels.
3. It has identified pupil needs in terms of program content.
4. It has emphasized the relationship between the classroom-school learning set and pupil achievement gains.
5. And, we hope it will also challenge Federal School personnel to think of Indian pupil achievement in terms of their respective schools. Comparisons by schools can only be justified to elucidate issues and problems. At all times, use of the comparative method should be based on causes, operational factors, acceptance or rejection of specific measures towards implementing ways and means which will meet the objectives a staff has set to improve pupil achievement at all grade levels.

SECTION THREE

This last section summarizes observations detailed in the foregoing pages. It includes recommendations which are made in the broader context of the Federal School System. It confirms the need for developmental and progressive approach to the language arts program. It stresses the involvement of the school personnel as a professional team to improve instruction in Federal Schools.

The observations are summarized under nine headings.

- These are:
1. Standardized testing results of pupil reading achievement in Federal schools
 2. Indian pupil progress by months per 10 month school year
 3. Patterns of achievement on (1) speed, (2) vocabulary, (3) and comprehension sub-tests
 4. Pupil achievement in multi-graded schools
 5. Pupil achievement in graded-schools
 6. Pupil reading achievement in relationship to Provincial curriculums
 7. Environment and/or limited background experience
 8. Learning English as a second language
 9. Interdependency of the classroom teacher, the head teacher, and supervisory staff

I Standardized testing results of pupil reading achievement in Federal Schools

1. The grades 1 and 2 scores are generally up to grade norm standards.
2. The grade 3 scores show incipient retardation and the grade 4 loss in months of a school year indicate specific grade levels needing special attention in the elementary school program.
3. The grades 5 to 8 scores show progressive and cumulative retardation. Grade 8 students tested in the fall generally scored one year below their grade norm expectancy.

- We recommend:
1. that collation of reading test data be done under the direction of the language arts specialist in co-operation with the head teacher in the school and the district school superintendent to assure concerted effort and interest in pupil reading performance.
 2. that pupil cumulative scores on reading tests be kept as official data available at the respective graded-schools, the district school superintendent's office, and the language specialist's files to keep on record the reading progress of Indian students in Federal Schools and in each specific school.

3. that the testing program be extended whenever possible to compare pupil scores in Federal Schools with Provincial pupil scores in the respective school districts to better prepare students to cope with the secondary school program of the Province.
4. that testing results be used by the schools to improve the teaching-learning set within each school.

II Indian pupil progress in months per 10 month school year.

1. Grades 1 and 2 pupils meet up with the 10 month reading progress of a 10 month school year.
2. Grades 3 and 4 reading progress is generally below the progress expectancy of a 10 month school year.
3. Grades 5 to 8 show variations by grades, by schools, and by sub-tests in rating above or below a 10 month gain per grade year.

We recommend: 1. that the language arts program of Federal Schools be evaluated on a different grade grouping to cope with areas of concern. The grouping could be as follows:

- a) K-2 for the primary program
 - b) grades 3-4-5 and possibly 6, for the elementary program, or/and
 - c) grades 6-7-8 and possibly 9 for senior elementary or junior high.
2. that language arts specialists in co-operation with a committee of teachers in Federal Schools plan a three-year program of units on reading skills to be taught per year from grades 3 to 5 inclusive. New skills introduced each year should emphasize depth of skill learning through application of its use in other related subjects. It should be possible to teach the essential reading skills of the elementary grades within a three-year period.
 3. that teacher-made tests in most subject areas from grades 3 to 5 stipulate the use of texts by pupils to organize thought-out answers rather than memorized facts. The concept of reading to learn and to find possible solutions is more essential than remembering facts to pass examinations.

III Patterns of achievement on

- 1) speed and accuracy,
- 2) vocabulary, and
- 3) comprehension sub-tests.

1. Vocabulary and comprehension scores in grades 4 to 8 inclusive are considerably lower than the expected grade norm scores.

2. Correlation between the low vocabulary and low comprehension scores confirms the need to stress language enrichment in the language arts program of Federal Schools.
3. Grade average scores show close correlation with the vocabulary and comprehension scores.

We recommend:

1. that emphasis on vocabulary enrichment be stressed in all subject areas from grades 3 to 8 inclusive.
2. that up to date Canadian dictionary editions be introduced in the schools and that the teaching of spelling be related to word study selections from the new dictionary and word concept study of other subject areas.

IV. Pupil achievement in multi-graded schools

1. Pupil achievement in multi-graded schools shows severe retardation in:
 - a) reading achievement
 - b) progress gains
 - c) age-grade placement
2. The pupil reading achievement scores in multi-graded schools were considerably lower than the regional average scores. They also affect negatively the respective graded-school scores when pupils from multi-graded schools enrol in graded-schools.
3. Pupil achievement in multi-graded schools shows little hope of improvement. Too many negative factors weaken the teaching-learning set in multi-graded schools.

We recommend:

1. that multi-graded classrooms be recuded to a minimum in the Federal School System.
2. that pupils from multi-graded schools be enrolled in graded schools at the earliest possible grade level.
3. that scores from multi-graded Federal Schools be recorded separately in statistical reports on pupil reading achievement to give an objective evaluation of pupil potential and ability in graded-schools which have 70 per cent of Indian pupil enrolment in Federal Schools.

V. Pupil achievement in graded-schools.

1. Pupils in graded-schools generally show higher scores than those reported for regional grade averages.
2. Graded-school pupils also show a grade 3 and 4 lag in grade-year progress.
3. Reading achievement scores of graded pupils show varying patterns of achievement by grades and by schools.

- We recommend:
1. that classroom enrolment be established to meet grade difficulty levels with enrolment from grades 1 to 4 inclusive not exceeding 25.
 2. that schools with severe retardation at grades 3 and 4 plan their instructional program for those grades in the realistic context of identifiable causes. It is essential the modified program of instruction be effectively implemented to guide pupils back into the regular Provincial curriculum courses.
 3. that the "teaching personnel" in graded-schools plan the reading program in their school to meet pupil needs and developmental program perspectives. Whether a staff does or does not succeed in helping pupils attain the expected age-grade standards, the academic personnel should be able to study professionally through a study in depth those factors which militated against or enhanced pupil progress.

VI. Pupil reading achievement and curriculum courses

1. Grades 1 and 2 pupils can cope with the Provincial curriculum courses provided teachers use appropriate instructional methods and introduce necessary modifications discussed with, and/or recommended by the supervisory personnel to meet the learning needs of pupils.
2. The grades 3 and 4 losses seem indicative of inherent weaknesses in the instructional courses. There seems to be a gap in spanning the grade 3 and the grade 4 level.
3. The grades 4 to 8 programs reflect pupil needs in vocabulary and comprehension over and beyond the Provincial curriculum courses.

- We recommend:
1. that Provincial reader selections be used as official teaching texts in the Schools, but inasmuch as a reader text is but a specific tool to teach skill in areas of the reading program, there should be strong emphasis on extra-curricular reading at all grade levels.
 2. that Indian culture content be introduced in other than reader text content, preferably in other areas such as social studies lessons, library books, etc. Use of modern media such as radio and/or television should be explored to present topics of cultural interest to Indian pupils.
 3. that teachers request the language arts specialists to give them more assistance in the grades 3 and 4 programs.
 4. that a developmental guide to correlate language arts instruction be developed for teacher workshop study groups and/or reference use at the grades 3 to 5 level.
 5. that the teaching of English grammar (if deemed necessary) only be introduced in grade seven. In the latter case, texts should be based on modern linguistic concepts on the teaching of English grammar.

VII. Environment or/and limited background experience

1. Age-stage psychological development of the child and his age-grade interests are significant to pupil progress. Over-age pupils are not interested in the story content of readers based on the interests of 6-7 year olds.
2. Home conditions seem more significant to Indian pupil achievement than isolation factors which limit background experience of the modern world. The latter situation can be overcome vicariously, the former may be a chronic situation.
3. Lack of interesting experiences has many facets and is not necessarily restricted to pupils living in geographically isolated schools.

We recommend: 1. that teachers become more involved in promoting school-home liaison.

2. that pupils be challenged to develop a creative curiosity for and appreciation of new knowledge and interest in the social and scientific developments of modern times.

VIII Learning English as a second language

1. Grade one pupils who learnt English as a second language during kindergarten show a decided advantage over their grade one English-speaking peers who had no kindergarten experiences.
2. Primary grade pupils show commendable skill in learning English as a second language.
3. Most English-Indian homes speak "broken" English as opposed to "educated or high school" English.

We recommend: 1. that all 5 year-old Indian children receive pre-I readiness through attendance at kindergarten.

2. that six year old Indian children be enrolled in grade one courses, irrespective of whether they had kindergarten training.
3. that oral English instruction be maintained in all Federal Schools from grades one to six. Teachers are urged to adopt modern language teaching techniques in teaching English as a second language and/or in correcting "broken English" speech patterns.

IX Interdependency of classroom teacher, head teacher, and supervisory staff

1. Two major impediments to staff leadership by day principals and senior teachers are:
 - (1) lack of time off from teaching duties; and
 - (2) lack of progressive orientation in modern curriculum objectives in connection with teaching "minority" or "ethnic" groups.

2. Classroom teachers may view classroom teaching as a grade ceiling rather than as a developmental learning sequence of readiness to achieve from one level to the next.
3. Language arts specialists need to make themselves available to graded-school personnel to help teachers gain insights to improve the language arts program in Federal Schools.

- We recommend:
1. that head teachers utilize fully free time available in the supervision of the language program and school and home relations.
 2. that teaching staff participate in regular monthly meetings to break through the isolation of the classroom teacher and to develop professional team co-operation of the school's instructional program.
 3. that academic leadership and teaching staff be encouraged to promote pupil achievement in reference to Provincial Curriculum standards in their respective schools through meetings with Provincial teacher groups.
 4. that the annual regional report be a study of cumulative scores by schools to diagnose problem areas needing further study or special help. Separate reports on graded school scores and multi-graded school scores of pupils attending Federal Indian Schools should be called for from time to time.

We stress urgency in implementing the above recommendations. Under existing conditions, no less than 30% of pupils below grade eight who participated in this year's testing program are potential drop-outs according to figures tabled in this study. The (1) percentage could be higher according to a recent report on the drop-out problems.

The Zeller report gives a list of some of the primary factors which determine drop-outs. Amongst these we find:

1. Failure to achieve scholastically--80 per cent of the drop-outs are retarded at least one grade level.
2. Low reading ability--retardation two or more years.
3. Grade placement--two or more years below age level.
4. Low marks--lower grades in the elementary school for the drop-out and his grades continue to go down each year during grades 8, 9 and 10.
5. Achievement below ability potential.

In conclusion, we consider Indian pupil potential and ability as the most encouraging point of this study. In spite of the difficulties the Indian child has to overcome, he can achieve in graded-schools under academic leadership of a progressive teaching staff. Implementation of the above recommendations can promote and support mutual endeavours of both administrative and academic staff toward pupil achievement according to his potential and ability.

(1) Zeller, R. Lower the Odds on Student Dropouts, Prentice-Hall, Incorporated, Englewood Cliffs, New Jersey, 1966, p. 20