
SUCCESS OF OLD ORDER AMISH CHILDREN
IN A STRATEGY-ORIENTED PROGRAM
FOR CHILDREN AT RISK OF FAILURE
IN READING

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SINCE THE 1984-85 SCHOOL YEAR, TEACHERS IN SCHOOL SYSTEMS throughout Ohio have helped a high proportion of *at-risk* first grade children achieve in reading through successful implementation of the Reading Recovery program (Huck & Pinnell, 1984/1985; Lyons, Pinnell, McCarrier, Young, & DeFord, 1987; Lyons, Pinnell, Short, & Young, 1986; Pinnell, Fried, & Estice, 1990; Pinnell, Short, & Young, 1986). Reading Recovery teacher training sites are located throughout Ohio, the first state in the United States to implement a statewide Reading Recovery program. This article describes a study of the Reading Recovery program with an Old Order Amish population of first grade students from the East Holmes Local School District (EHLSD) in Holmes County, Ohio, who were taught by teachers from the Ashland University Reading Recovery training site. Given this particular population, this study examines the results of the implementation of a Reading Recovery program with culturally and linguistically diverse children.

Reading Recovery is an early intervention program developed in New Zealand by Marie M. Clay (Clay, 1979, 1985, 1993), a developmental child psychologist. The program is designed for the lowest achieving readers in the bottom 20 percent of first grade classrooms who are identified with an individually administered Observation Survey and by teacher recommendation. The daily, thirty-minute individual Reading Recovery lessons supplement regular classroom reading instruction and enable the vast majority of children to be discontinued from the program in a 12- to 20-week period by achieving reading performance comparable to their classroom average. Students who are successfully discontinued from the program are defined as having reached the average performance of their classroom or better (if the classroom average is lower than expected) and having developed a self-extending system that allows students to continue to grow in their reading ability through ongoing interactions with reading text in an effective classroom environment.

Rather than placing emphasis on mastery of isolated reading skills, Reading Recovery teachers assist students in developing a set of self-regulatory metacognitive reading abilities similar to those described by Brown (1985). The ultimate goal of the program is the development by the students of a strategy-oriented, self-extending system that enables them to continuously achieve at or above the average in reading of their classmates throughout their educational endeavors.

During the 1986-1987 school year, 23 teachers from 14 school systems in six counties were trained at the Ashland University Reading Recovery site. Six of these teachers were from elementary schools in the EHLSD which serviced the world's largest population of Amish children who attend public schools (Miller & Aguilar, 1984; Lifer, personal communication, 1988). This article will present an analysis of the progress of the Old Order Amish children in the Reading Recovery program. After highlighting several characteristics of the Old Order Amish subculture which might provide challenges to progress in learning to read standard English, statistical analyses will be used to address the following four research questions:

1. Do the Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic Survey (Clay, 1979, 1985) (revised by Clay in 1993; name of instrument was changed to Observation Survey) that fall within the mean-band scores of the (a) Amish non-Reading Recovery first grade students from EHLSD, (b) non-Amish non-Reading Recovery first grade students from EHLSD, and (c) the Ashland University Reading Recovery site?

2. Do the non-Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic [Observation] Survey that are located within the mean-band scores of the (a) Amish non-Reading Recovery first grade students from EHLSD, (b) non-Amish non-Reading Recovery first grade students from EHLSD, and (c) non-Reading Recovery first grade students throughout the Ashland University Reading Recovery site?

3. Is the mean number of lessons required to discontinue Amish students less than the mean number of lessons required to discontinue (a) non-Amish discontinued Reading Recovery students in the EHLSD and (b) the discontinued Reading Recovery students from the school systems located outside of Holmes County that are serviced by the Ashland University Reading Recovery site?

4. Does the proportion of Amish Reading Recovery students who are from EHLSD who are discontinued from the program differ from the proportion of non-Amish Reading Recovery students from EHLSD who were discontinued from the program?

Characteristics of the Old Order Amish Subculture

This section describes the characteristics of the Old Order Amish subculture. These characteristics distinguish the Old Order Amish from a new, more liberal sect of Amish that is a branch of the Mennonite faith.

A culture is comprised of several “patterns and products of learned behavior: etiquette, language, good habits, religious and moral beliefs, systems of knowledge, attitudes and values; as well as the material things and artifacts produced—the technology—of a group of people” (Havinghurst & Neugarten, 1975, p. 6). Because the environmental situation of Old Order Amish students is quite different from the characteristics of the dominant, non-Amish culture, these students are influenced by a subculture much like that defined by Wolfson (1976):

Subcultures exist within the framework of a larger culture. Members of a subculture, although adhering to a greater or lesser extent to the values and social norms of the wider culture, also have their own values and norms, and they may differ in social structure and patterns from the main culture of which they form a part. (p. 121)

The Old Order Amish society exists as an anachronism in the space age. It gives a glimpse of what was abandoned when people left the farms a century ago (Barker, 1986; Wittmer, 1983). The following differences of the Amish subculture exist so the members can maintain a social isolation from the world of the *outsider*, can practice their religion, and achieve their goal of gaining eternal life. They avoid outsiders, or people who are not of the Old Order Amish faith, and their worldly ideas. The Amish may be willing to interact with the outsiders, or non-Amish, on what they see as an equal basis of limited bond (i.e., buyer or seller of goods). Beyond this, they desire limited contact with the world outside their society (Lee, 1984). Modern appliances, including television and radio, and technological advances which encourage contact with or require dependence on members outside their subculture are avoided. The dress of all members is plain and colorless reminding everyone that they are Amish (Ediger, 1980).

To maintain their individuality and isolation as a group, a German dialect similar to Yiddish is spoken in homes (Wittmer, 1983). Amish children score significantly lower on language portions of standardized tests suggesting that these problems may be due to language and cultural differences (Hostetler & Huntington, 1971). Once Amish students adjust to standard English and the school curriculum, their semantic development has been found to match comparison groups of suburban children and exceed the semantic development of black and white inner city children (Entwisle, 1969).

Researchers have shown the importance of language in a facilitative role to serve as a template for interpreting the printed word (Downing & Leong, 1982; Sticht & James, 1984). Therefore, some intervention must occur to help the Amish student develop confidence in speaking standard English before reading instruction begins. Model programs for Amish children which stress extensive language arts intervention, parent involvement in introducing preschoolers to standard

English at home, and other literacy events to assure transition to standard English have been recommended (Fishman, 1987; Logan, 1964; Parsons, 1983).

Formal education is important to the Amish because it will enable them to function in the non-Amish society. The Amish believe that all education should focus on knowledge and skills that can be put to practical use. Any other knowledge or skills are frivolous and unnecessary beyond that which can be used in their goal of living a simple life to practice their religion (Bontreger, 1969). Reading is important to the Amish because it enables them to read the Bible; math is important for household/farm management. Sciences and higher learning, however, are considered foolish, unnecessary, and sinful (Hostetler & Huntington, 1971).

The value Amish parents place on education and reading achievement should encourage these parents to express positive attitudes about academic achievement to Amish students. Parental attitudes toward reading were found to be an important influence on their children's own reading attitudes (Ransbury, 1973). When New Zealand groups of white, Samoan, and Maori children were compared, Clay (1976) found that Samoan children made better progress than Maori children in the initial stages of learning to read. The progress of the Samoan children was attributed to frequent experiences of parents reading to them from the Bible and observing the high value placed on reading and writing, and because of letters between parents and relatives in the home country. Reading the Bible with children has an equally high priority in the Amish society.

The Bible and some Amish monthly publications are found in Amish homes (Fishman, 1987; Miller & Aguilar, 1984). Beyond reading of the Bible to practice their religion, researchers found that most Amish adults do not read. Those who do read do so for practical purposes such as machine repair or to answer questions about farming (Miller & Aguilar, 1984). The fact that parents do not appear as wide readers could be detrimental to Amish children's view of the importance of reading. Also, their infrequent use of books may not provide the opportunity for them to teach their children implicit knowledge about book handling suggested by Logan (1964).

The Amish feel that eight years of schooling is sufficient to gain enough practical knowledge and skills for their style of living. The eight-year school career encourages some parents to place even more importance on their children's school work. During interviews conducted by the author, parents stated that their children must learn to read immediately so they can benefit completely from the eight years they have to learn the practical skills and knowledge they will need for future life. After many years of legal struggles, the United States Supreme Court ruled that compulsory, formal education beyond eighth grade would endanger the free exercise of the Amish religious beliefs. Some Amish families, however, choose to send their children to public school and allow them to attend high school (Wittmer, 1972).

Reaction to Change by the Amish Society

Change occurs so slowly in the Amish society that most outsiders do not realize that change is being slowly accomplished. The literal interpretation of the Bible and previously described behaviors aimed at isolation are the focus of most observers of this group; these characteristics have remained relatively constant. However, subtle change is occurring as described in the following examples of the Amish culture:

1. An increased emphasis is being placed on legal means by the federal and state government of regulating Amish behavior. The eight-year school attendance decision and refusal to pay social security taxes are two areas of regulation.
2. The Amish are increasing their use of technical medical services. They will buy medical services, and in some cases, very sophisticated services. For example, recently one Amish man

had a heart transplant. Another Amish man bought a hearing aid from the Ashland University Speech and Hearing Clinic.

The Amish can no longer be considered a farm-oriented society exclusively. Different kinds of work are being performed by members (e.g., carpentry, construction, and factory work). It should be noted, however, that even those who have non-farm work continue to farm on a small scale (Barker, 1986).

These changes may eventually require the Amish to allow their children to go beyond the study of the basic subjects. For example, jobs which involve technology will require understanding basic science principles, and courses which stress the legal structure of the outsiders' society may need to be studied.

Some sociologists predict that employment changes may cause a breakdown of the Amish society. Other researchers feel that stabilizing factors like large, close-knit families; strong convictions; personal relationships with other members of the congregation; hard work and thrift; and religious beliefs central to their simple, less complex way of life will maintain the Amish society (Ediger, 1980).

Amish beliefs and behavior have an impact on children's response to educational procedures and how teachers should interact with these children. When Amish attend public schools, they encounter positive results with non-Amish students. However, these same procedures are in direct opposition to many of the beliefs and practices of the Old Order Amish. Wittmer (1983) and Wittmer and Moser (1974) suggested that public school educators must be aware of the following issues when working with the Amish:

1. Promoting individuality, procedures to boost self-concept, and stressing pride in one's work should be avoided. The Amish feel they are members of a group and the group ethic prevails. Therefore, the competitive spirit should be avoided; competition works against the feeling of working for the group. Teachers should also be very selective with praise. "Praise is reserved for groups and not for individuals" (Wittmer & Moser, 1974, p. 182).

2. The Amish are a task-oriented, exact society. Work is a moral directive. One should work slowly and accurately. Therefore, speed should not be stressed or expected.

3. Although some change away from a farm-centered society has been noted, career exploration is not an interest for the Amish student. Units stressing career education may not be applicable in the Amish students' curriculum.

4. To maintain the isolation that is required by their religion, Amish students purposely keep their distance from non-Amish students in school. Encouraging friendships with outsiders should be avoided.

5. Advice and counseling by teachers about church or family matters may be avoided by Amish children, because parents may have warned children not to be swayed by the advice or interest of teachers or counselors in these matters.

Because the dominant subculture usually controls the school system, a hazardous situation which can inhibit learning occurs when students find that the school environment is foreign to the patterns and products of their subculture (Downing & Leong, 1982). Wittmer (1983), a professor of education who was born and raised in an Old Order Amish home, stated:

I often joke about the fact that one entering a public school without knowledge of the Bobbsey twins or Mother Goose is in immediate danger of failure. But there is much truth to this. The American public schools have often been viewed ideally as one American institution where tolerance of individual difference is much in evidence. However, I can vouch that the contrary is more the norm. The goal is institutionalization and those who don't conform to the social norms and who refuse to be assimilated are in trouble. (p. 180)

Many Old Order Amish communities educate their children in their own parochial schools to avoid the discrepancies between their subculture and the dominant subculture that controls the school system. However, situations occur when parochial schools are not available. The Amish will support a public school education as long as it is rural in nature and does not depart much from the Amish life pattern (Keefer, 1969).

Definition of Terms

Reading Recovery Children — are children who received 60 or more lessons in the Reading Recovery program or who were discontinued from the program. Table 1 contains the number of students in the various groups analyzed in this study.

Discontinued Reading Recovery Children — are children who successfully completed the program and who were officially released during the year or who were identified as having met the criteria for discontinuation at the final testing in May (see Table 1).

Not Discontinued Reading Recovery Children — are those children who were not officially discontinued from the program for various reasons including: (a) the student moved from the school, (b) the student did not have time to complete a minimum of 60 lessons before the end of the school year, (c) the student was referred to another program such as special education, or (d) the student did not respond adequately to the program after a maximum of 20 weeks of instruction. Table 1 lists the number of students not discontinued for the various Reading Recovery groups.

Non-Reading Recovery Children — served as comparisons for the reading performance of the discontinued Reading Recovery groups. The non-Reading Recovery children were divided into three groups. The first groups consisted of Amish non-Reading Recovery children in the first grade classrooms in the East Holmes Local School District (EHLSD). The second group was composed of the non-Amish non-Reading Recovery children in first grade classrooms in the EHLSD. The third group consisted of the students in Groups 1 and 2 as defined plus a group of children randomly selected from the first grade classrooms from every school outside the EHLSD serviced by the Ashland University Reading Recovery site (see Table 1).

Testing

Assessment of the subjects' reading performances was accomplished by administering the Diagnostic Survey (Clay, 1979, 1985) (revised by Clay in 1993; name of instrument was changed to Observation Survey). The Diagnostic [Observation] Survey was designed to capture change during the emergent stages of reading and writing progress. This series of observational tasks includes six assessments. These assessments are:

1. *Letter Identification*: Children identify 54 different characters including upper and lower case letters and conventional, manuscript print for the letter *a* and *g* (range of scores: 0-54).
2. *Word Test*: Students read a list of 20 words drawn from the most frequently found words in basic beginning reading materials (range of scores: 0-20).
3. *Concepts About Print*: While the teacher reads a book aloud, students are tested on 24 significant concepts about printed language, for example, directionality and one-to-one matching (range of scores: 0-24).
4. *Writing Vocabulary*: Children are asked to write as many words as possible in ten minutes, starting with their own names and including basic vocabulary and other words. General prompting of categories of words (e.g., color words) by the teacher is used (range of scores: determined by the number of words a child can write correctly in ten minutes).

5. *Dictation*: Children write a sentence dictated word-by-word by the teacher. Credit is given for each phoneme represented by the correct letter (range of scores: 0-37).

6. *Text Reading*: Students read text selections leveled in difficulty to align with texts from the classroom. As the child reads, a running record is made of reading behavior. Children continue reading at higher levels until they reach two levels at which they score below 90 percent accuracy. The score on text level is the highest level read with 90 percent accuracy (range of scores: 1-34).

Table 1
Number of Students in the Reading Recovery (RR) and Non-Reading Recovery Groups

Location and Type of Student	RR Students	Discontinued Students	Not Discontinued RR Students	Non-RR Students
Amish from EHLSD*	26	25	1	82
Non-Amish from EHLSD*	12	8	4	48
Students from school systems outside the EHLSD* serviced by the Ashland RR site	84	64	20	108
All students from the school systems serviced by the Ashland RR site	122	97	25	238

* East Holmes Local School District

Calculating the Average (mean) Band

The goal of the Reading Recovery program is for discontinued Reading Recovery children to reach average levels of performance in their respective classrooms and continue to learn with their peers without any more assistance or remediation beyond regular classroom reading instruction. To determine whether the discontinued Reading Recovery students have reached the average levels of their peers, their mean scores on the Diagnostic [Observation] Survey were compared to the corresponding average bands that were calculated for the subtests of the non-Reading Recovery groups.

An average band for each non-Reading Recovery group was calculated for each subtest by subtracting one-half of a standard deviation unit from the mean and by adding one half of a standard deviation unit to the mean. Average bands were calculated on each of the six subtests of the Diagnostic [Observation] Survey for each of the three non-Reading Recovery groups.

Selection Procedures

Selection of Reading Recovery Students. The 44 Reading Recovery students included in this study were selected from first grade classrooms in five elementary schools of the East Holmes Local School District during the second week of September. Classroom teachers used an alternate ranking procedure in which they identified the two students with the highest and lowest reading ability in their class. Next, the second highest and lowest students were identified. The process was repeated until a class list was developed. Each Reading Recovery teacher developed individual class lists for each first grade classroom from which Reading Recovery children were selected.

Reading Recovery teachers tested the top and middle five percent of the children from each list in addition to the bottom 20 percent. Children from the top and middle five percent provided the Reading Recovery teacher with an estimate of the reading ability of higher functioning children in the class. Beginning of the year comparisons could be made between these children and the Reading Recovery children.

The lowest achieving four children were selected (from the bottom 20 percent of the students). These children formed the first group of Reading Recovery children to be taught in the program. The other children in this bottom 20 percent group were placed on a waiting list. When a child was discontinued, moved, or was referred from the program, the next lowest child entered the program.

Forty-four children from the East Holmes Local School District were instructed in the Reading Recovery program during the school year. Of those 44 students, 29 were Old Order Amish and 15 were non-Amish. Of the 29 Amish children, 26 received a full Reading Recovery program (i.e., they received more than 60 lessons or were discontinued). Of the 15 non-Amish children, 12 received a full program. Only students who experienced a full Reading Recovery program are included in the analysis. Six of the students (three Amish and three non-Amish) will not be included because they had less than 60 lessons, moved from the district, or were referred to another alternative program such as special education. Thus, for the purposes of this pilot study, the total Amish population of program children was 26 and the total non-Amish population of the program was 12.

All Reading Recovery entrants who receive 60 or more lessons are considered program children. The main goal of the program, however, does not focus on the number of lessons. Reading Recovery teachers attempt to enable program children to achieve at least the average level of reading performance accompanied by using independent reading strategies. This level of mastery of the reading process is required before Reading Recovery teachers will discontinue a student from the program. Many children are discontinued before 60 lessons are completed.

Other children may not meet these criteria even though they received 60 or more lessons. When students did not respond to the program, they were not discontinued and were not included in analyses which involves discontinued Reading Recovery students. Therefore, the statistical analyses which follow will contain only 25 discontinued Amish students and eight discontinued non-Amish students.

The Amish children included in this study were Old Order Amish and lived in a subculture similar to that described in an earlier section of this paper. Two of the elementary schools served only Amish children. It should be noted that some Amish parents may have more readily agreed to send their children to these public schools for this reason.

Because the Amish parents of the children in these two schools encouraged their children to speak the German dialect at home, intensive language intervention programs were implemented by the schools during the kindergarten year and the beginning of the first grade year. Therefore,

children who had kindergarten experience were selected for the Reading Recovery program at the beginning of the year. If students did not attend kindergarten, they were not included in the first group of four children who entered the program. They could enter the program in the second group of children in first grade, allowing more time for language intervention and experience in school. This selection procedure supports the oracy to literacy research cited earlier. The general principle for selection of students for Reading Recovery is that the lowest achieving children are served (Clay, 1993). The program is intended for children who have shown to be at risk after one year of schooling. Last, Clay suggested that the child have sufficient English to “understand the instructions of the Observation [Diagnostic] Survey” (p. 67) (and presumably, the instructional programmes).

Selection of Non-Reading Recovery Students. Three groups of non-Reading Recovery students were identified. Two of these groups were identified in EHLSD first grade classrooms. One group was made up of all first grade Amish students in the EHLSD first grade classrooms who were not in the Reading Recovery program. This group consisted of 82 students. The second group contained all non-Amish Reading Recovery students from the EHLSD first grade classrooms. This second group consisted of 48 children. The third group consisted of the 130 non-Reading Recovery students from the EHLSD plus 108 non-Reading Recovery first grade students in the 14 school systems outside of the EHLSD serviced by the Ashland University Reading Recovery site.

These three comparison groups were used to establish the average levels of performance for first grade students through the calculation of average bands for the subtests of the Diagnostic [Observation] Survey. According to the tenets of the Reading Recovery program, discontinued Reading Recovery children should be achieving at or above this average level. Thus, the mean postscores of the Reading Recovery groups should fall within the average bands of the non-Reading Recovery groups.

Method of Instruction

After Reading Recovery children were identified and the comparison groups were established, the Reading Recovery program was implemented. Reading Recovery teachers conducted daily lessons for one-half hour, five days per week according to program guidelines. (For a complete description of the daily lesson procedures, see Clay 1985, pp. 56-58.)

Data Analysis

Question 1: Do the Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic [Observation] Survey that are located within the mean-band scores of the (a) Amish non-Reading Recovery students from the EHLSD, (b) non-Amish non-Reading Recovery students from the EHLSD, and (c) non-Reading Recovery students throughout the Ashland University Reading Recovery site?

Question 2: Do the non-Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic [Observation] Survey that are located within the mean-band scores of the (a) Amish non-Reading Recovery students from the EHLSD, (b) non-Amish non-Reading Recovery students from the EHLSD, and (c) non-Reading Recovery students from throughout the Ashland University Reading Recovery site?

To provide information relative to Questions 1 and 2, a comparison was made between the mean scores for the Amish discontinued Reading Recovery students on the six subtests of the Diagnostic [Observation] Survey and the corresponding average bands for the three comparison groups. Data in Table 2 contain the mean pretest and end-of-year scores on the six subtests for the Amish discontinued Reading Recovery children from the EHLSD first grade classrooms and the non-Amish discontinued Reading Recovery children in these classrooms. Table 3 lists the mean and standard deviation values of the end-of-year scores on the six subtests of the Diagnostic [Observation] Survey for the three comparison groups (e.g., the Amish non-Reading Recovery students and the non-Amish non-Reading Recovery students from the EHLSD first grade classrooms, and the non-Amish non-Reading Recovery students from the Ashland University site). Table 4 shows the comparisons of the mean end-of-year scores of the Amish discontinued Reading Recovery students to the average bands for the non-Reading Recovery students.

Table 2
Mean and Standard Deviation Values on the Diagnostic [Observation] Survey for the Discontinued Reading Recovery (RR) Groups

Test	Amish Discontinued RR Students from EHLSD*						Non-Amish Discontinued RR Students from EHLSD*					
	Pretest			End-of Year			Pretest			End-of-Year		
	n	mean	SD	n	mean	SD	n	mean	SD	n	mean	SD
Letter Identification	25	36.48	14.60	25	52.88	1.13	8	40.87	13.22	8	53.37	.74
Word Test	25	.64	3.00	25	19.16	1.25	8	.25	.46	8	18.87	1.81
Concepts About Print	25	8.04	3.46	25	20.32	1.70	8	8.37	3.02	8	18.25	3.15
Writing Vocabulary	25	5.04	4.60	25	47.16	11.11	8	1.75	1.04	8	50.87	9.36
Dictation	25	4.16	6.05	25	36.04	1.57	8	5.12	5.92	8	35.75	1.75
Text Reading	25	.44	1.21	25	21.08	5.26	8	0.00	.00	8	24.25	5.60

* East Holmes Local School District

The results contained in Table 4 indicate that all mean end-of-year scores except for the Concepts About Print subtest for the Amish discontinued Reading Recovery students were located in the corresponding average bands for the three non-Reading Recovery groups. The mean Concepts About Print subtest scores exceeded the upper limit of the average band for the Amish non-Reading Recovery group.

Five of the mean scores for the end-of-year non-Amish discontinued Reading Recovery group from the EHLSD first grade class were located within the average bands of the three non-Reading Recovery groups. Only the Concepts About Print mean score of the non-Amish

Table 3*Mean and Standard Deviation Values on the Diagnostic [Observation] Survey for the Non Reading Recovery (RR) Students*

Test	Amish Non-RR Students from EHLSD*			Non-Amish Non-RR Students from EHLSD*			Non-RR Students from all Schools Serviced by the Ashland RR Site		
	n	mean	SD	n	mean	SD	n	mean	SD
Letter Identification	82	52.97	1.53	48	53.22	.99	238	53.11	1.29
Word Test	82	19.00	2.39	48	19.10	1.28	238	18.91	2.24
Concepts About Print	82	18.61	2.93	48	19.68	2.55	238	19.26	2.71
Writing									
Vocabulary	82	47.63	15.17	48	50.23	11.41	238	45.47	14.73
Dictation	82	33.79	6.13	48	35.83	1.81	238	34.45	4.88
Text Reading	82	20.41	10.20	48	22.58	7.09	238	19.95	9.35

* East Holmes Local School District

Table 4*End-of-Year Diagnostic Survey Scores for the Discontinued Reading Recovery (RR) Students and Average Bands for the Non-Reading Recovery Groups*

Test	Mean End-of-Year Score for Discontinued RR Students		Average Band for Non-RR Students		Average Band for all Non-RR Students (n=238)
	Amish Students in EHLSD* (n = 25)	Non-Amish Students in EHLSD* (n = 8)	Amish in EHLSD* (n = 82)	Non-Amish in EHLSD* (n = 48)	
Letter Identification	52.88	53.37	52.21-54.73	52.74-53.72	52.47-53.57
Word Test	19.16	18.87	17.81-19.94	18.46-19.74	17.79-20.03
Concepts About Print	20.32	18.25	17.15-20.07	18.42-20.96	17.91-20.61
Writing Vocabulary	47.16	50.87	40.05-55.21	44.52-55.92	38.11-52.83
Dictation	46.04	35.75	30.73-36.88	34.92-36.73	32.02-36.88
Text Reading	21.80	24.25	15.31-25.51	19.03-26.13	15.28-24.64

* East Holmes Local School District

discontinued Reading Recovery group fell slightly below the lower limit of the non-Amish, non-Reading Recovery group.

Question 3: Is the mean number of lessons required to discontinue Amish students less than the number of lessons required to discontinue (a) non-Amish discontinued Reading Recovery students in EHLSD and (b) discontinued Reading Recovery students from the school systems outside of East Holmes Local School District serviced by the Ashland University Reading Recovery site? Table 5 contains the analysis of the number of lessons completed for the Reading Recovery groups from the EHLSD and a group of all discontinued Reading Recovery students from outside of the EHLSD (n = 64).

Table 5
Mean and Standard Deviation Values for the Number of Lessons Completed Until Discontinued

Group	n	Lessons		Weeks
		mean	S	mean
Amish Students from EHLSD*	25	73.2	31.8	14.6
Non-Amish Students from EHLSD*	8	84.1	27.8	16.8
Students outside the EHLSD*	64	70.2	34.5	14.0

*East Holmes Local School District

East Holmes Local School District (EHLSD) Amish discontinued Reading Recovery students were discontinued in an average of 73.2 lessons or 14.6 weeks. East Holmes Local School District non-Amish discontinued Reading Recovery children were discontinued in 84.1 lessons or 16.8 weeks. The average number of lessons calculated for the discontinued Reading Recovery students outside of EHLSD was 70.2 lessons or 14 weeks.

According to common statistical practice, a difference of approximately one third or more of a standard deviation unit would indicate that the difference between two means is practically significant. One third of the weighted average standard deviation value for the number of lessons for the three groups was 11.1 lessons. Since the difference between the mean number of lessons for discontinuation of the Amish and non-Amish discontinued Reading Recovery students from EHLSD is 109, the difference approaches the size of being considered practically significant. The difference in the mean number of lessons for the discontinued Reading Recovery students outside of EHLSD and the Amish discontinued Reading Recovery students was 3.0 lessons. This difference did not approach practical significance.

Question 4: Does the proportion of Amish Reading Recovery students from EHLSD who discontinued from the program differ from the proportion of non-Amish Reading Recovery students from EHLSD who were discontinued from the Program?

Table 6 lists the number of students who were discontinued and not discontinued in the Amish Reading Recovery groups and non-Amish Reading Recovery group from the EHLSD. Only one of these 26 Amish students who had a full Reading Recovery program was not discontinued. She was tested and placed in a special education program. Four of the 12 non-Amish students in the EHLSD who had a full Reading Recovery program were not discontinued. A Fisher's exact probability test indicated that the proportion of Amish discontinued was statistically significantly greater than the proportion of non-Amish Reading Recovery students from the EHLSD who were discontinued.

Table 6
Number and Percent of Students Discontinued from the Reading Recovery (RR) Program

Group	Discontinued from the Program	Not Discontinued from the Program	Percentage Discontinued
Amish RR Students from EHLSD*	25	1	96.2
Non-Amish RR Students from EHLSD*	8	4	66.7

Note. A Fisher's exact probability test produced a probability level of .027.

*East Holmes Local School District

Discussion

The relationship of the school to the environmental zones of culture, subculture, and home directly influence children's success in school. When the school environment does not cut across the areas of subculture and family, the school zone is said to lie outside the children's own territory of subculture and family (Downing & Leong, 1982). Children who experience this phenomena are often called disadvantaged because their language, experiences, customs, attitudes, and values are foreign to those of the school.

Members of the Old Order Amish purposely create a lifestyle that places the characteristics of the public school outside the children's territory of subculture and family. The purpose of this study was to determine if these differences would inhibit progress of Amish children in a one-to-one strategy-oriented program of beginning instruction for at-risk readers. The language difference, limited experiential background, and desire for isolation from the ways of outsiders were viewed as obstacles that would interfere with school progress and make discontinuation from the Reading Recovery program more difficult.

It appears from the results of this study that concerns about the success of Amish children in the Reading Recovery program were unfounded. Amish children were discontinued at an unusually high rate in a shorter period of time than the non-Amish students from the East Holmes Local School District. The average amount of time Amish children spent in the program before they were discontinued was comparable to the average amount of time required to discontinue all discontinued Reading Recovery children outside of the EHLSD.

One implication which can be drawn from these findings related to a feeling voiced by some teachers and parents about the involvement of Amish children in the Reading Recovery program. It was expressed that cultural and language differences exist between Amish and non-Amish students, and these difference would inhibit the Amish students' progress toward discontinuation. It appears that these concerns are unwarranted. The analyses in this study indicates that Amish children may discontinue more quickly and at higher numbers than non-Amish children in the EHLSD.

When performance on subtests in the Diagnostic [Observation] Survey was examined, performance of Amish and non-Amish discontinued Reading Recovery children in the EHLSD elementary school was comparable. On one measure, Concepts About Print, the Amish discontinued Reading Recovery students' *mean performance* surpassed the upper limit of the average band of the non-Amish discontinued Reading Recovery students.

The success of Amish discontinued Reading Recovery students noted in text reading and the development of knowledge about books and printed language noted in concepts about print may be due to the fact that these children were having their first experience with a set of innovative, colorful texts in a strategy-oriented program which stressed concepts about print. It was noted that EHLSD non-Amish discontinued Reading Recovery students had lower average Concepts About Print scores even though their average text reading level was two levels higher than the Amish discontinued Reading Recovery children.

There could be other factors in the Amish home environment, however, that contribute to the success of Amish students in text reading and the development of concepts about print. Emphasis on daily Bible reading in the home has already been cited as one possible factor (Clay, 1976). The Amish Reading Recovery students would experience a similar emphasis on Bible reading. Fishman (1987) has begun to document ethnographic studies of how Amish families in Lancaster, Pennsylvania, prepare their children for literacy demands. A more extensive look for parallels between these works and the literacy environment of Holmes County Amish should be pursued.

In her study on the effect of language and cultural differences on learning to read, Clay (1976) made the following conclusion:

The study of the Samoan child in this research has contributed markedly to new understanding . . . The Samoan child who speaks two languages, who is introduced to a book and to written message in his home, who is urged to participate fully in schooling, and is generally supported by a proud ethnic group with firm child-reading practice, manages to progress well in the early years of school without handicap from his low scores on oral English tests. It appears from this study that the comprehension of English for the Samoan child was developed in a good instructional program which operated like a monitoring system directing the child's attention to more and more sources of cues to the written message. In both these respects schooling was the source of progress. (p. 341)

It appears that even though the Amish attempt to use cultural and social differences to maintain isolation from those outside their subculture, they realize the importance of education as a means of maintaining their lifestyle. The priority placed on mastering practical knowledge in basic subject areas appears to have a positive supportive effect of encouraging the child to fully participate in schooling in the midst of a family whose firm child rearing practices are rooted in its proud religious heritage. These qualities, combined with the schooling effects of the strategy-oriented Reading Recovery early intervention program, have created a school situation that allows Old Order Amish children at risk of reading failure to achieve success.

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