The Italic Handwriting Series developed for public schools in Portland, Oregon, emphasizes a continuous flow in handwriting development and instruction and is designed to allow a more natural transition from print to cursive. Italic writing was first implemented during 1983-84 at the kindergarten through fourth-grade levels, with an additional grade-level implementation occurring during successive years. A three-year evaluation study examined the effects of italic handwriting instruction on students' handwriting legibility. The program, which includes a staff training component, concentrates on joins between letters rather than on changes in letter formation that characterize more conventional handwriting programs. Legibility criteria included shape, slope, size, and space. The evaluation study presents program outcomes for the 1985-86 school year, as well as a summary of all 3 years of the italic adoption implementation. Fall and spring handwriting papers were collected from students in grades 3, 4, and 5 and the 9 sample schools. A teacher survey was also conducted. Analysis of the student writing papers and teacher feedback indicate that the general legibility of student handwriting has declined over the 3-year period, but teachers generally were positive about the program, though each year of implementation saw a slight increase in the number of teachers who wanted to drop it. A description of the "Italic Handwriting Series” materials and scope and sequence is appended. (TJH)
1985-86 Evaluation Report

ITALIC HANDWRITING
IN THE PORTLAND PUBLIC SCHOOLS

Research and Evaluation Dept.
Portland Public Schools
Portland, Oregon
Walter E. Hathaway, Director

Carolyn Moilanen

September, 1987

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY Carolyn Moilanen TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

U.S. DEPARTMENT OF EDUCATION
Office of Ed. Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE
EVALUATION OF ITALIC HANDWRITING

By

Carolyn Moilanen

With the Assistance of Sonja Grove

Department of Research and Evaluation
Portland Public Schools
Portland, Oregon

September, 1987
The Italic Handwriting Series emphasizes a continuous flow in handwriting development and instruction, and is designed to allow a more natural transition from print to cursive. Italic handwriting was first implemented during 1983-84 at grades K-4 with an additional grade-level implementation during successive years. A three-year evaluation study has examined the effects of italic handwriting instruction upon students' handwriting legibility.

During the first year, legibility ratings declined from fall to spring. During the second and third years, ratings typically increased from fall to spring. When the ratings are examined across all three years of italic implementation, a pattern of overall decline emerges. Because many student papers were written in standard cursive, the entire sample was separated into "italic" and "non-italic" categories. Even though italic papers received significantly higher ratings, the legibility ratings declined over time.

Questions about the strength of the implementation remain unanswered. Handwriting is not a high priority when compared with basic skills instruction, and the implementation has not had the level of District support of other curricular adoptions. While teachers' impressions of the italic program are generally favorable, primary teachers typically respond more positively about italic than do intermediate grade teachers.

The adoption does not appear to harm children's handwriting development; it does consistently produce better legibility than more traditional handwriting forms; and it also enjoys substantial teacher support. Therefore, it is recommended that the Italic Handwriting Series be maintained.
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
</tr>
<tr>
<td><strong>Program Description</strong></td>
</tr>
<tr>
<td><strong>Implementation of the Handwriting Program</strong></td>
</tr>
<tr>
<td><strong>Staff Training</strong></td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
</tr>
<tr>
<td><strong>Student Sample</strong></td>
</tr>
<tr>
<td><strong>Legibility Rating Process</strong></td>
</tr>
<tr>
<td><strong>Teacher Survey of Italic Handwriting</strong></td>
</tr>
<tr>
<td><strong>Findings</strong></td>
</tr>
<tr>
<td><strong>Handwriting Legibility Rating 1985-86</strong></td>
</tr>
<tr>
<td><strong>Handwriting Legibility Over Time</strong></td>
</tr>
<tr>
<td><strong>Comparison of Italic and Non-Italic Ratings</strong></td>
</tr>
<tr>
<td><strong>Teacher Survey</strong></td>
</tr>
<tr>
<td><strong>Conclusions</strong></td>
</tr>
<tr>
<td><strong>Recommendations</strong></td>
</tr>
<tr>
<td><strong>Appendix</strong></td>
</tr>
</tbody>
</table>
INTRODUCTION

The Portland Public Schools adopted the Italic Handwriting Series as part of the 1983-89 elementary language arts adoption. The program was first implemented during 1983-84 at grades K-4 with an additional grade-level implementation occurring during successive years.

The Curriculum Department requested the support of the Department of Research and Evaluation to design and conduct a three-year evaluation to assess the effects of italic instruction upon students' handwriting legibility. The first year evaluation produced baseline data regarding the legibility of third, fourth, and fifth grade students' handwriting. The evaluation also found that the Italic Handwriting Series was favorably received by District teachers—that they regarded the program as developmentally suitable for their students and the basic curriculum materials satisfactory. The second year evaluation assessed program outcomes in terms of improved handwriting legibility and found that mean legibility ratings increased for third, fourth, and fifth grade groups from fall to spring. Teachers continued to regard the program as developmentally suitable for their students and teachers reported that they typically found student handwriting easy to read.

This report is the third in a series and presents program outcomes for the 1985-86 school year, as well as a summary of all three years of the italic adoption implementation.

PROGRAM DESCRIPTION

The Italic Handwriting Series emphasizes a continuous flow in handwriting development and instruction, and is designed to allow a more natural transition from print to cursive. The transition is based on joins between letters rather than on changes in letter formation which characterize more conventional handwriting programs. A description of the Italic Handwriting Series materials and scope and sequence is in the Appendix.
The Portland Public School District recommends that 40% of primary grade instructional time and 35% of intermediate grade instructional time be devoted to language arts.¹ Within these recommendations there are no specific grade level standards for duration of handwriting instruction. Handwriting instruction is very important at the K-3 level where daily practice is encouraged. At the intermediate level, when its practical importance increases, handwriting instruction is typically provided for correction, adjustment or enrichment. The italic implementation is supported by the Curriculum Department (specifically by the District Language Arts specialist), by building-level instructional specialists, and teachers who strongly believe in the merits of the italic form of handwriting.

IMPLEMENTATION OF THE HANDWRITING PROGRAM

During 1983-84 (the first year of implementation at K-4) the italic handwriting curricular scope and sequence was somewhat compressed. Basic italic was introduced at kindergarten, first, and second grades and practiced all year at those levels, as prescribed by the program developers. Basic italic was also presented at grades three and four, but children at those levels were also introduced to cursive italic at later periods during the school year. It is reasonable to assume that third and fourth graders had previously received instruction in, and had practiced, other forms of handwriting. Therefore, the first year's instructional experiences for the third and fourth grade required a transition from standard handwriting to italic, and within italic, from basic to cursive forms.

Instruction in italic during the second and third years of implementation more closely followed the curricular scope and sequence recommended by the program developers. During 1984-85, italic handwriting was implemented district-wide at K-5, and at K-6 during 1985-86. For grade levels K-4, 1985-86 was the third year of program implementation.

Staff Training

The Portland Public Schools Teacher Support Services provided continuing teacher inservice in the Italic Handwriting Series during all three years. Six hours of training were offered in two-day workshops held during the summers; a four-part training session provided eight hours of instruction in italic during the fall of each year. Four hundred forty-two teachers participated in training in 1983-84, 72 teachers in 1984-85, and 103 participated in 1985-86. In addition, the program authors, upon request, conducted training workshops at grade level meetings within various clusters.

A series of instructional videotapes is available in the central audio-visual library for teacher use. During 1983-84, the italic series was broadcast over cable television at least ten times, and the taped series was checked out 48 times; during 1984-85, the skills tapes were checked out a total of 25 times (on five occasions for extended staff use); and during 1985-86, the series was checked out ten times.

EVALUATION

The Curriculum Department determined that students' handwriting legibility would be a suitable focus of the italic program evaluation. In addition, they considered teacher perceptions of the implementation critical for design and delivery of responsive curricular support. Therefore, in 1985-86 as in the previous two years, the evaluation had two parts: 1) an assessment of the legibility of student handwriting, and 2) an assessment of teacher opinions about how the program helped students meet handwriting objectives.

Student Sample

A random sample of nine elementary schools in the Portland Public School District was selected for the three-year evaluation study. Fall and spring handwriting papers were collected from students at grades three, four, and five at these schools during 1983-84, 1984-85, and 1985-86. Third, fourth,
and fifth grade classes in the sample schools were given a prompt for a handwriting exercise and directed to write on a specific subject in the handwriting style most comfortable for them. (See the Appendix for a copy of the fall and spring prompts for handwriting for all three years of the evaluation.) During 1985-86, the third and fourth grade students who submitted papers had theoretically experienced italic instruction for three years if they were continuously enrolled in the District; fifth grade students, if continuously enrolled in the District, had two years of regular italic instruction after a first year of transitioning from traditional handwriting to italic.

Legibility Rating Process

As a quality of handwriting, legibility denotes the formal adequacy of the letters to communicate, and results from high formal correspondence between the handwriting and a model that the reader is prepared to recognize. Legibility is a natural consequence of handwriting produced with distinctive, simple letter models in proportioned form.2

The four elements of shape, slope, size, and space were accepted as criteria by which the quality of legibility in all forms of handwriting could be measured. A holistic rating procedure was used to rate the student handwriting papers -- not by individually addressing each of the four criteria -- but instead by producing a single rating to represent an overall or "whole" impression of the handwriting legibility of each paper. A four point scale was used, with four being the highest rating.

For fall and spring ratings, there was no distinction made or set out regarding student handwriting in terms of print or cursive letter forms. The legibility standard was applied to both forms of handwriting, and students did not gain fewer points because of printing instead of cursive. Similarly, no distinctions were made between italic and more traditional letter forms.

A team of eight raters drawn from the community and the school district scored the handwriting papers. The rating team was trained at both fall and spring rating sessions with sets of papers selected from the first student handwriting sample collected in Fall, 1983. These papers had been selected and scored by the rating trainer on the basis of their representativeness within each of the first year's grade level sample. They were used as models, or "range-finders," for training recognition of various levels of handwriting legibility. On several occasions during each practice session, participants were required to articulate reasons for various ratings according to the agreed-upon legibility criteria of shape, slope, size, and spacing. When a reasonable consensus among ratings was achieved, grade level sets of papers were paired and systematically tracked through two four-member rating teams. Each student paper received two independent scores, which were summed to produce a rating. When the independent scores differed by two points or more, the trainer acted as referee and determined the final rating.

Preparation of rating procedures, training, and referee services were provided by Charles Lehman, a handwriting specialist and Tigard Public Schools Curriculum Administrator. (The rationale and specific process are described in the Appendix.)

Teacher Survey of Italic Handwriting

Representatives of the Departments of Curriculum and Research and Evaluation cooperated in the design of a teacher survey to assess teachers' opinions of the ease and legibility of their students' italic handwriting. Additional items asked teachers how much time they spent on italic handwriting instruction each week, what their italic training experiences had been, and if they would participate in future italic training sessions. A copy of the 1986-86 Teacher Survey of Italic Handwriting is in the Appendix.
FINDINGS

During each evaluation, differences between the fall and spring ratings were compared for each grade level and from year to year for the whole group. A high degree of consensus among raters was achieved during all three years of evaluation. Differences of two points or more occurred in 3.6% of the 1983-84 papers; in 2.8% of the 1984-85 papers; and in fewer than 1% of the 1985-86 papers.

To ensure reliability between ratings across all three years, approximately one hundred 1983-84 papers from all three grade levels were rescored during the Spring 1985 rating session, and three hundred forty-six 1984-85 papers were rescored during the Spring 1986 rating session. Fewer than 5% of the rescored papers were refereed.

Handwriting Legibility, 1985-86

A total of 2,177 papers were rated in 1985-86 and included in the data analysis; 1,134 fall papers and 1,043 spring papers. If the student papers did not contain identification by student name, grade level, school, or handedness, they were not included in the analysis. The number of papers included in fall and spring analysis is not equal because group ratings were separately computed. It was not necessary for a student to have both fall and spring papers to be included in the analysis; 706 students in 1985-86 had both fall and spring scores.

According to the four-point rating scale, the lowest rating a paper could receive would be two (1+1) and the highest rating would be eight (4+4). Mean ratings were computed for the third, fourth, and fifth grade groups, for males and females within each grade level, and a total sample mean was calculated for all three grades.

Table 1 presents the 1985-86 fall and spring group means by grade level, male and female. A total fall and spring mean is presented.

---

3 Though there are concerns about differential handwriting program outcomes for right and left-handed students, there were never notable differences between ratings for the two groups.
### Table 1

Italic Handwriting Sample Fall, 1985 and Spring, 1986 Group Means

<table>
<thead>
<tr>
<th>GRADE</th>
<th>FALL 1985 RATING</th>
<th>SPRING 1986 RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALES</td>
<td>FEMALES</td>
</tr>
<tr>
<td>3</td>
<td>4.08</td>
<td>4.52</td>
</tr>
<tr>
<td></td>
<td>(211)</td>
<td>(200)</td>
</tr>
<tr>
<td>4</td>
<td>4.06</td>
<td>4.29</td>
</tr>
<tr>
<td></td>
<td>(163)</td>
<td>(190)</td>
</tr>
<tr>
<td>5</td>
<td>4.03</td>
<td>4.38</td>
</tr>
<tr>
<td></td>
<td>(188)</td>
<td>(182)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1114)</td>
<td></td>
</tr>
</tbody>
</table>

The 1985-86 ratings show a slight increase in group means from fall to spring for the whole group, and for students in grades four and five. The third grade spring mean declined because girls' ratings decreased from the fall to the spring. Results of a T-test indicate no significant differences between the fall and spring means either at grade level or for the whole group from fall to spring.

### Handwriting Legibility Over Time

Because the italic evaluation was a three-year study, it was important to compare legibility ratings and gains across all three years of the implementation. Table 2 displays total grade level group means for each sampling period, and presents the duration of participation in the italic handwriting program.
Table 2

Group Means by Grade Level, 1983-84, 1984-85, 1985-86 and Number of Years of Italic Instruction

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>Fall 1983</th>
<th>Spring 1984</th>
<th>Fall 1984</th>
<th>Spring 1985</th>
<th>Fall 1985</th>
<th>Spring 1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5.17</td>
<td>5.02</td>
<td>4.85</td>
<td>5.16</td>
<td>4.30</td>
<td>4.24</td>
</tr>
<tr>
<td>4</td>
<td>5.09</td>
<td>4.85</td>
<td>4.56</td>
<td>5.07</td>
<td>4.18</td>
<td>4.24</td>
</tr>
<tr>
<td>5</td>
<td>5.19</td>
<td>5.12</td>
<td>4.56</td>
<td>4.63</td>
<td>4.21</td>
<td>4.27</td>
</tr>
<tr>
<td>Total</td>
<td>5.15</td>
<td>5.00</td>
<td>4.66</td>
<td>4.99</td>
<td>4.23</td>
<td>4.25</td>
</tr>
</tbody>
</table>

No Italic Instruction | 1 Year Italic | 2 Years Italic | 3 Years Italic |

Three ways to examine these data are as grade level ratings fall to spring within years, as total group ratings across years, and in terms of a cohort group of 1983-84 third graders who are represented as fourth and fifth graders in 1984-85 and 1985-86.

During 1983-84 from fall to spring, legibility ratings declined at all three grade levels. One explanation for the decline at third and fourth grades is that during the first implementation year, students were required not only to transition from another form of handwriting, but also to learn both basic and cursive italic. The fifth grade ratings (both fall and spring) were made on traditional handwriting forms because grade five was not part of the first year implementation. During the second and third years, grade level ratings typically increased from fall to spring; 1984-85 increases were greater than those of 1985-86. The only exception to the general increase was at third grade during 1985-86, where ratings declined from fall to spring. The total group ratings present the same pattern: a decline during the first year, large fall to spring increases during the second year and a small increase during the third year.
If the Fall 1983 figures could be interpreted as a rating based on the previous three (for grade three) or four (for grade four) years of traditional handwriting instruction and practice, and if one purpose of the italic adoption was to improve handwriting legibility, one would reasonably expect that the 1985-86 ratings for third and fourth graders would be higher than those of Fall 1983 and Spring 1984. A similar expectation may be less reasonable for the fifth grade group because though they had three years of italic instruction by the end of 1985-86, they began italic after having developed other forms of handwriting. Figure 1 shows that the group ratings overall have declined since the 1983-84 baseline year.

Figure 1
Whole Group Italic Ratings Fall and Spring 1983-84 through 1985-86
A separate analysis was conducted for those students who submitted handwriting samples as third, fourth, and fifth graders. Table 3 displays three years of ratings for the clear group whose papers were rated as third graders in 1983-84, as fourth graders in 1984-85, and as fifth graders in 1985-86. The fall to spring pattern for this group is similar to those presented earlier; fall to spring ratings declined during the first year of implementation, a large increase occurred fall to spring during the second year, and a slight increase occurred between fall and spring in 1985-86. The 1985-86 ratings are lower overall when compared with those of the previous two years.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>1983-84</th>
<th>1984-85</th>
<th>1985-86</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Spring</td>
<td>Fall</td>
</tr>
<tr>
<td>Grade 3</td>
<td>5.66</td>
<td>5.44</td>
<td>4.47</td>
</tr>
<tr>
<td></td>
<td>(89)</td>
<td>(89)</td>
<td>(89)</td>
</tr>
</tbody>
</table>

Comparison of Italic and Non-Italic Ratings

During all three evaluation years there was evidence that italic handwriting was not universally taught. Each year, some of the rated papers were written in standard cursive forms instead of italic. Because the legibility rating process did not make distinctions between italic and traditional handwriting forms, a further analysis was made to find out if there were differences in ratings between italic and non-italic handwriting samples.

A panel of expert judges was assembled to separate each year's sample into "italic" and "non-italic" categories. Judges included representatives of the italic handwriting community, teachers and administrators. Group grade level means were calculated for italic and non-italic categories for students who had both fall and spring ratings in a single year. Table 4 displays the data.
Table 4
Comparison of Italic and Non-Italic Clear Group Means
Within Years 1983-84, 1984-85, 1985-86

<table>
<thead>
<tr>
<th>Year</th>
<th>Italic</th>
<th></th>
<th>Non-Italic</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Spring</td>
<td>Fall</td>
<td>Spring</td>
</tr>
<tr>
<td>1983-84</td>
<td>5.39</td>
<td>5.14</td>
<td>5.12</td>
<td>4.98</td>
</tr>
<tr>
<td>n</td>
<td>(323)</td>
<td>(323)</td>
<td>(320)</td>
<td>(320)</td>
</tr>
<tr>
<td>1984-85</td>
<td>4.65</td>
<td>5.06</td>
<td>4.36</td>
<td>4.66</td>
</tr>
<tr>
<td>n</td>
<td>(574)</td>
<td>(574)</td>
<td>(185)</td>
<td>(185)</td>
</tr>
<tr>
<td>1985-86</td>
<td>4.37</td>
<td>4.48</td>
<td>4.09</td>
<td>3.99</td>
</tr>
<tr>
<td>n</td>
<td>(414)</td>
<td>(414)</td>
<td>(292)</td>
<td>(292)</td>
</tr>
</tbody>
</table>

T-tests were conducted to determine the significance of the differences between italic and non-italic means, and between the italic and non-italic fall to spring gains. Italic means were significantly higher than non-italic means during the second and third years of implementation, and italic gains were significantly higher than non-italic gains in 1985-86; statistical significance was at the .05 level.

Even though italic papers were rated higher than non-italic papers, legibility ratings of italic papers declined in the same way non-italic legibility ratings declined over the three years of the Italic Handwriting Series implementation.

The italic/non-italic analysis provided information from which to make inferences about the extent of the implementation for the sample students; during the first year of data collection, approximately half the papers were judged to be italic; the proportion increased to 75% in the second year, but declined to just 60% in the third year. One might reasonably conclude that some of the sample students did not receive italic instruction. It is noteworthy that about half of the papers were categorized as italic in Fall 1983. One explanation is that the first sample was collected late in the fall after the implementation had begun.
Teacher Survey of Italic Handwriting

All Portland Public School teachers K-5 and Language Arts teachers in grade six were surveyed in May, 1986, regarding their opinions of the ease and legibility of their students' italic handwriting; teachers were asked about how much time they spent on handwriting instruction, what training they had participated in, and whether they would participate in future training sessions. Approximately 1,000 copies of the "Teacher Survey of Italic Handwriting" were distributed and 63% were returned. Table 5 displays the number of respondents by grade level. Teachers who did not identify their grade were described as "Other."

Table 5

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65</td>
<td>127</td>
<td>103</td>
<td>104</td>
<td>89</td>
<td>82</td>
<td>39</td>
<td>23</td>
<td>632</td>
</tr>
<tr>
<td></td>
<td>(10%)</td>
<td>(20%)</td>
<td>(16%)</td>
<td>(16%)</td>
<td>(14%)</td>
<td>(13%)</td>
<td>(6%)</td>
<td>(4%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

Table 6 presents total teacher responses to the three survey items. (Respondents did not necessarily answer all survey items, therefore, the response totals in Table 6 are not equal to the total in Table 5.)
Table 6
Responses to Teacher Survey of Italic Handwriting

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>Strongly Agree</th>
<th>Generally Agree</th>
<th>Undecided</th>
<th>Generally Disagree</th>
<th>Strongly Disagree</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My students are able to write the italic letter forms easily</td>
<td>N 59</td>
<td>321</td>
<td>57</td>
<td>91</td>
<td>38</td>
<td>566</td>
</tr>
<tr>
<td></td>
<td>% (10)</td>
<td>(57)</td>
<td>(10)</td>
<td>(16)</td>
<td>(7)</td>
<td>(100)</td>
</tr>
<tr>
<td>2. My students' handwriting is easy to read.</td>
<td>N 60</td>
<td>343</td>
<td>56</td>
<td>75</td>
<td>28</td>
<td>562</td>
</tr>
<tr>
<td></td>
<td>% (11)</td>
<td>(61)</td>
<td>(10)</td>
<td>(13)</td>
<td>(5)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MINUTES FOR ITALIC INSTRUCTION</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. How many minutes per week do you spend on italic instruction?</td>
<td>N 92</td>
<td>123</td>
<td>130</td>
<td>87</td>
<td>122</td>
<td>554</td>
</tr>
<tr>
<td></td>
<td>% (17)</td>
<td>(22)</td>
<td>(23)</td>
<td>(16)</td>
<td>(22)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESPONDENTS' ITALIC TRAINING</th>
<th>SELF-TAUGHT</th>
<th>DISTRICT WORKSHOP</th>
<th>COLLEGE CLASSES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Which category best describes your % italic training experience?</td>
<td>N 201</td>
<td>240</td>
<td>78</td>
<td>519</td>
</tr>
<tr>
<td></td>
<td>% (39)</td>
<td>(46)</td>
<td>(15)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESPONDENTS' INTEREST IN FUTURE ITALIC TRAINING</th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. If future training classes were offered, would you participate?</td>
<td>N 160</td>
<td>384</td>
<td>544</td>
</tr>
<tr>
<td></td>
<td>% (29)</td>
<td>(71)</td>
<td>(100)</td>
</tr>
</tbody>
</table>
Overall, responding teachers more often agreed that their students were able to write the italic letter forms easily. Sixty-seven percent of all responses to question one (N=380) fell in the Strongly Agree or Generally Agree categories. Twenty-three percent disagreed (N=129) and 10% (N=57) were undecided. Teachers overall similarly agreed that their students' handwriting was easy to read; 72% of all responses (N=403) to question two fell in the Strongly to Generally Agree categories while 10% (N=56) were undecided and 18% (N=103) disagreed.

When responses were considered in terms of grade levels, K-5 teachers were more positive than grade six teachers. Over 50% of the K-5 teacher responses were more often positive about the ease of student writing, and teachers' ease in reading their students' italic. For ease of student writing, K-5 responses ranged from 56% positive at grade five to 82% positive at grade one; for ease of teacher reading, responses ranged from 64% positive at grade three to 87% positive at grade one. Forty-nine percent of the 6th grade teachers (n=19) disagreed that their students were able to write italic letter forms easily; 31% (n=12) agreed and 21% (n=8) were undecided. Forty-one percent of the sixth grade teacher respondents (n=16) agreed that their students' handwriting is easy to read; 39% (n=15) disagreed, and 21% (n=8) were undecided.

While the percentage of teacher responses in the instructional time categories was similar, K-4 teachers reported more time spent on italic instruction than fifth and sixth grade teachers. Second and third grade teachers reported a high of 60 minutes per week; kindergarten, first and fourth grade teachers reported spending 30 - 40 minutes per week on italic instruction. Fifth and sixth grade teachers reported spending 20 minutes per week on handwriting instruction.

Forty-six percent of all respondents reported that they learned italic in District-sponsored workshops; 15% studied italic handwriting in college or university classes and 39% were self-taught. A larger percentage of teachers at grades five and six reported that they were self-taught. Seventy percent of the respondents overall indicated that they would not participate in future italic training if it were offered; the largest number of teachers who responded positively about participation in future training were 22 kindergarten teachers and 14 sixth grade teachers.
Teacher Comments. Two hundred eighty-nine responding teachers (46% of the total number of respondents) included comments which were summarized and tallied in order to determine trends among responses. Comments pertained to specific curriculum and instructional concerns. K-3 teachers more often noted that learning certain letters was difficult for young students; 12 teachers across all grade levels mentioned problems with transitioning from italic handwriting instruction to the world of workbooks and other curricular materials which use models of standard cursive writing; 15 teachers across all grades mentioned that children already practiced in traditional cursive had difficulty changing to italic handwriting. K-2 teachers expressed a need for additional support materials. Some comments dealt with teachers' personal like or dislike of the adoption; 77 comments were positive statements in favor of the italic handwriting, and 41 comments were negative statements reporting dislike of italic.

All three years of teacher comments were reviewed and the evaluator sorted the comments into four categories: those reflecting personal feelings about italic, specific instructional concerns, materials shortage, and "other." Table 7 presents the percentage of comments organized by topic under categories related to feelings, instructional concerns, and materials. "Other" comments were excluded from the summary and are not reflected in the percentage calculations.
Table 7
Percentage of Teacher Responses by Topic and Year

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>1983-84</th>
<th>1984-85</th>
<th>1985-86</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 217</td>
<td>n = 244</td>
<td>n = 223</td>
<td></td>
</tr>
</tbody>
</table>

**PERSONAL FEELINGS**

- Positive statements, e.g., "I like italic." 40% 39% 35%
- Negative statements, e.g., "I don't like the italic adoption." 2% 15% 18%
- Desire for change from italic -- 3% 11%

**INSTRUCTIONAL CONCERNS**

- Difficult for students to write some letters, e.g., "e" 3% 17% 13%
- Mismatch between italic and traditional handwriting models in other curriculum materials 16% 11% 10%
- Transition from traditional handwriting difficult 12% 9% 8%

**MATERIALS**

- Supplementary materials are needed 27% 7% 5%

Each year, the largest percentage of comments were positive statements about italic, but over time, the percentage of teachers desiring a change has increased. Comments about instructional concerns are declining; the 1985-86 percentages are not surprising given the degree of positive responses to survey items 1 and 2 -- "My students are able to write the italic letter forms easily," and "My students' handwriting is easy to read." Concerns about materials have similarly declined over the three years of the italic implementation. One explanation for the decline in instructional concerns is that the Curriculum Department has responded to meet specific needs reported in earlier evaluations.
CONCLUSIONS

In 1985-86, the whole group mean legibility ratings for fourth and fifth grade students increased from fall to spring; third grade ratings declined. During the first three years of italic implementation, the general legibility of sample students' handwriting has declined. Though there were fall to spring gains during the second two years of the italic implementation, the ratings have never equalled those of the baseline year. The same pattern of decline is noted for clear groups; the third graders who were sampled during 1983-84 received lower legibility ratings as fourth and fifth graders. When each year's sample was separated into categories judged as "italic" and "non-italic," the same decline was noted, though the set of papers judged to be italic typically received higher mean ratings than the non-italic set.

In general, teacher responses to the Italic Handwriting Survey indicate that the adoption is favorably received. Teachers overall report that students are able to write italic letter forms easily, and teachers typically find student handwriting easy to read.

Instructional and materials concerns have been commented upon less frequently as the implementation has continued. There has been an increase in the percentage of negative statements about the adoption, and an increase in the percentage of comments indicating a desire for a change over time. Instructional time for handwriting is varied; primary teachers spend two to three times longer on handwriting instruction (averaging 40 - 60 minutes per week) than do intermediate grade teachers. Though the majority of teacher respondents received formal italic training in either District or university classes, 70% indicate they are not interested in participating in future training.
RECOMMENDATIONS

If it is determined that handwriting is a sufficient instructional priority, it is recommended that the Curriculum Department formalize criteria for deciding whether to continue or discontinue italic handwriting instruction. The adoption does not appear to harm children's handwriting development; it does consistently produce better legibility than more traditional handwriting forms and it does enjoy substantial teacher support. Unless there are other compelling reasons not addressed by this study, it is recommended that the Italic Handwriting Series be maintained.
THE ITALIC HANDWRITING PROGRAM

Materials for the Italic Handwriting Series consist of six grade-level student texts for grades K-5 and a self-instructional manual for grades six through eight. The student texts are workbooks in which students trace, copy, and practice letter forms, words, and then sentences. The format of the workbooks is intended to accommodate both left- and right-handed writers.

A single Instructional Manual serves as teacher guide for all levels of the Series. The Instructional Manual explains and illustrates italic letter formation and joins, emphasizing shape, slope, size, and spacing. The Manual includes a rationale for the program, evaluation techniques, and scope and sequence. Figure A presents the scope and sequence of the Italic Handwriting Series.

Figure A

Italic Handwriting Series Scope and Sequence

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>CONTENTS, TECHNIQUES, PRACTICE ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book A</td>
<td>Twenty-six lower and upper case letters and numbers presented one per page</td>
</tr>
<tr>
<td>Book B</td>
<td>Follows Book A and in addition, provides practice on words and sentences</td>
</tr>
<tr>
<td>Book C</td>
<td>Reinforces basic letter forms and introduces cursive in meaningful handwriting experiences; e.g., names, days of week, months, homonyms, contractions, quotations</td>
</tr>
<tr>
<td>Book D</td>
<td>Presents cursive joinings sequentially, provides practice in combining lower case and capital letters, and practice copy of poetry</td>
</tr>
<tr>
<td>Book E</td>
<td>Further practice with cursive joinings, uses letter combinations, phonetic sounds, prefixes, and suffixes</td>
</tr>
<tr>
<td>Book F</td>
<td>Continues practice with cursive joinings through writing figures of speech in sentences</td>
</tr>
</tbody>
</table>
Handwriting Samples - Fall 1983 Prompt
and Teacher Instructions

- Have students write one paragraph using the title provided on the format page below.

- Students should be encouraged to approach the topic as if they were planning to go to the zoo, not necessarily dependent on knowledge from having been to the zoo in the past.

- Ask students to use No. 2 pencils, and do not encourage ballpoint pens.

- Discourage erasing and rewriting. An original first draft is much preferred.

- Please return the papers in alphabetical order by students' last names.

- Students should be encouraged to use a spelling book, dictionary, or reference book to check spelling of unusual words or names of animals. Spelling and grammatical errors will not affect the sample evaluation.

________________________________________________________________________
Teacher                                               Name of Student
________________________________________________________________________
School                                               Date

A VISIT TO THE ZOO
o Have students write one paragraph using the subject of: Reasons I Would Give for Wanting a Pet.

o Students should be encouraged to approach the topic as if they were planning to get a pet, not necessarily dependent on knowledge from having had a pet in the past. They may also write on reasons for not having a pet, in case they feel negative about the subject.

o Ask student to use No. 2 pencils and do not encourage ballpoint pens.

o Discourage erasing and rewriting, an original, first draft is much preferred.

o Please return the papers in alphabetical order by students' last names.

o Students should be encouraged to use a spelling book, dictionary or reference book to check spelling of unusual words or names of animals.

o Spelling and grammatical errors will not affect the sample evaluation.

o Students should use ordinary classroom paper and should write on one side only.

o Please have them head their papers in the following manner:

Teacher ___________________________       Grade ___________________________

School ___________________________       Name of Student ___________________________

Date ___________________________       Left or Right Handed ___________________________
Handwriting Samples -- Fall 1984/Spring 1985, Fall 1985/Spring 1986

Prompt and Teacher Instructions

- Please hand out writing forms and have the students complete the identification heading.

- Have students write one paragraph using the subject of: The Person I Would Most Like To Meet. Students should be encouraged to approach the topic as if the person were real or imaginary; from the past, present, or future. Encourage students to include reasons for their choice.

- Students should write their paragraphs on the writing forms provided.

- Thank you very much for your support of this project.
A Brief Outline of the Rationale and the Process Used for a Judging of Handwriting in Portland Public Schools on January 31, 1984

By Charles Lehman

PURPOSE: To provide background performance data for Portland Public Schools

1. The method of this evaluation is holistic judgement of scientific random sample:
   a. Holistic judgement
      - The theory recently used in judgement of written composition
      - Precedent from earlier evaluations of handwriting
      - More recent research (Otto) of use in handwriting evaluation
   b. Scientific random sample
      - Listing of all students in grade and selection of classes on a regular frequency schedule

2. The strategy of this holistic evaluation is as follows:
   a. Papers were taken in November from students in grades 3-5 in selected schools.
   b. Papers were unpacked and sorted into three stacks representing three grades. Papers from classes with more than one grade were sorted out in the same way and added to the appropriate grade stack.
   c. The referee examined each paper in each grade to determine if it was identified with sufficient information about its origin, naming the school, teacher, grade, and student who wrote it.
d. Each of the papers for each grade was considered by the referee in an effort to select multiple samples representing four quality levels. The papers were sorted into four stacks representing four levels of quality. After representative samples were selected, all four stacks were reunited into one by weaving small quantities together from each stack. The samples selected have been coded and xeroxed to use for practice with readers to prepare them for the reading. The first grade to be read, grade 3, has six sample sets to be used for practice.

e. Each page of each set was coded, and the key to the code was recorded privately by the referee for release to the readers after they had made judgements themselves about each set of practice papers.

f. The first two sets of practice papers started simple, challenging the readers to distinguish two papers of high quality from two papers of lower quality in each set.

g. The second two sets required that the reader distinguish four levels of quality, with only one paper to be graded for each level of quality in each set.

h. The final two sets required that the reader distinguish four levels of quality with more than one paper per level of quality in each set.

i. After completing each sample grading set, the readers discussed reasons why the papers deserved the mark they were given; i.e., set specific criteria for the four levels of quality.

3. Following is a listing of general guidelines that should be kept in mind while judging handwriting during this sample evaluation:

a. Handwriting is a personal reflection of the whole human being (personality, physique, emotional state, energy level), and all these factors must be considered in reading the papers. The writing ranges from small and shy to large and bold and from well made to poorly made depending on development of the student as a person and as a learner.
The quality is also dependent on the characteristics of the tools and materials used to perform a given design of writing. Some tools (e.g., a soft pencil) detract from the quality of an alphabet designed with a fine-line tool.

b. The reader must focus only on the quality of the writing, not spelling or literacy merit, and form a general impression of excellence based on sensitivity to specific qualities and individual designs prescribed for each of three major handwriting styles. Handwriting here includes what some might call "printing." The act of printing is by design an assembling of multiple strokes to form letter forms and is therefore not a rhythmic activity and should be judged by its own criteria of excellence.

c. However, the idea of prescribed designs, like any other specific criterion of the handwriting system, is subordinate to the holistic judgement of its worth which is made generally, immediately, and while founded on familiarity with specific criteria, is not analytical in nature.

4. Specific criteria to be considered in judging any style of writing is as follows:

a. **Letter slope:** The letter slope prescribed in each of the various systems varies from each other from vertical to approximately 30° to the right. No system prescribes a back slope.

b. **Space:** All systems desire the appearance of even spacing between letters, words, and lines.

c. **Size:** All systems desire regularly sized letters at a scale that is convenient for the reader to read.
d. **Shape:** All systems prescribe specific letter forms for each letter and number of the alphabet. Not only are the forms prescribed, but the number, sequence, and direction of strokes are prescribed. Letter form becomes illegible when minimum essentials are missing from forms.

e. **Format:** Alignment of lines, length of lines, and space of margins are all integral elements in the act of handwriting. They are as real as the strokes of the letter forms.

f. **Quality of line:** All systems promote smooth-flowing, rhythmic writing based on confident control of shape-making gestures.

g. **Cleanliness:** The readability of any writing depends on clarity of form. Incomplete erasing, writing over, and smudging or marking is discouraged.

All the criteria together make up a network. No one aspect of it can be violated without violating the entire network.

5. The arrangement of readers into teams is as follows:

a. Readers are to be assigned to teams of equal number with no two readers from the same source on the same team. Each team is to read half of the papers of each grade.

b. A clerk will distribute papers and record final scores for each student. In case the two scores given to a paper by the two readers are apart by one number or more, the referee will resolve the scores.
TEACHER SURVEY OF ITALIC HANDWRITING
PORTLAND PUBLIC SCHOOLS
EVALUATION DEPARTMENT

This survey is intended to ask teachers about the implementation of the Italic Handwriting program in Portland Public Schools. Please completely blacken the box that represents your choice for each question. Use only a No. 2 pencil. To change a mark, completely erase the wrong mark.

1. Strongly Agree  Generally Agree  Undecided  Generally Disagree  Strongly Disagree
   My students are able to write the italic letter forms easily

2. Strongly Agree  Generally Agree  Undecided  Generally Disagree  Strongly Disagree
   My students' handwriting is easy to read

3. 20  30  40  50  60
   Approximately how many minutes per week do you spend on italic handwriting instruction?

4. Self Taught
   District Workshops
   College Classes
   Which category best describes your italic training experience?

5. Yes  No
   If future training classes were offered, would you participate?

Grade level I teach
School where I teach
Comments

-28-