A study to compare the effects of reading achievement of informal and formal British infant schools is discussed. The informal school, for children from 5-8 years old, utilizes one or more of the following: integrated day, family or vertical grouping, open planning, and team teaching. The formal schools follow a prescribed curriculum and group children homogeneously. The teacher is the directive influence, and there is little integration of curriculum areas. It was hypothesized that on a theoretical basis children who were in a warm, comfortable setting, learning at their own rates, would have an advantage in learning. Three samples were tested: 187 inner-London children, 13 pairs of siblings in a suburban London school, and 47 children in a suburban junior school. In all three analyses, reading achievement was measured by the Holborn Reading Analysis test. Analysis of the data by means of t-tests showed that there were higher means for children in the informal schools, but a significant difference was found only in the case of the inner-London schools. It was concluded that a commitment to an informal philosophy will not adversely affect reading achievement. (Author/CK)
THE EFFECT OF INFORMAL AND FORMAL BRITISH INFANT SCHOOLS
ON READING ACHIEVEMENT

Laura D. Harckham
Manhattan College
Bronx, N.Y.

Donald V. Erger
Herricks Public Schools
New Hyde Park, N.Y.

A paper presented at the 1972 Annual Meeting
of the American Educational Research Association

Chicago, Illinois
April, 1972
Specific research directly related to effects of the British infant schools on learning is not readily found in the literature currently available in the United States. Claims have been made by advocates of currently popular educational practices described as stemming from the informal British infant schools, but cognitive and affective results of any new method must be evaluated before widespread adoption, to insure that benefits of one system are not being sacrificed for the attractiveness of a new method. Educators in the United States have not been satisfied, generally, with the effectiveness of current teaching methods, grouping patterns, and instructional materials in providing a strong foundation and positive motivation for all children in reading, the most important learning tool for academic success. For this reason the search continues for a method or methods which will enable schools to come closer to meeting the goal of insuring success in reading for every child.

A number of reports have dealt with the informal schools in Britain, but few may be considered as research or evaluation. The Plowden Report (1967) reported that children in streamed (traditional) schools had slightly higher mean scores on achievement tests (the smallest differences were in the area of reading), but differences were not significant. Gooch and Pringle (1967) reported that brighter children did better in reading with traditional methods and slower children with progressive methods, but offered no evidence of rigorous study. Lovell (1963) found no significant differences between 11 pairs of matched schools, but Gardner (1968) did find significant differences favoring the informal schools. He mentioned a limitation which appears to be applicable to most studies in this field. An assumption must be made that local adaptations of the informal program, in a highly decentralized system, are truly representative of the philosophy.
Barker Lunn (1970) tested attitudes and achievement of 5,500 pupils immediately after they left the infant school for the junior school. No significant differences were found in academic achievement of children who attended formal and informal schools. Teachers in the two types of schools were found to be significantly different in years of teaching (informal teachers had less experience), types of experiences they provided for the children, attitudes toward children, and philosophy of education.

Because of extreme differences in the educational and social systems of the two countries, it was not possible to compare the informal British schools with traditional American schools. The purpose of this study, then, was to compare the effects on reading achievement of informal and formal British infant schools. If a statistically significant difference were found between the reading achievement of children in the two types of schools, implications could be drawn for American educators. Since infant schools have no counterpart in the United States, there was the possibility that some aspects of the informal programs might be incorporated into American schools which have been admittedly short of reaching the goal of total literacy.

The informal infant school, for children approximately five to eight years old, is a school which may utilize one or more of the following characteristics in varying combinations to meet local educational needs: the integrated day, family or vertical grouping, open planning, and a local form of team teaching on a daily basis. The integrated day is a workshop approach which transcends specific curriculum subdivisions. The child, working individually or in a small group, can follow his own interests to pursue a personalized educational goal. Family grouping is a nongraded process spanning either two or three years, where five, six, and seven year olds are grouped together. The word "family" is used in that the class resembles
a family, with children learning from one another. Language development is emphasized. In some cases youngest pupils are grouped together during their first months at school for orientation purposes, and in other cases the oldest infant pupils are removed for special junior school preparation. Thus the informal infant school encompasses grouping, curriculum, method, and school climate as different from the traditional school.

The formal schools follow a prescribed curriculum and generally group children homogeneously. The teacher is the directive influence, and there is little integration of curriculum areas.

Without a substantial background of research, it was hypothesized on a theoretical basis that children who were in a warm comfortable setting, learning at their own rates, would have an advantage in learning, despite the general finding in reading research that methods rarely have made a difference in achievement.

Three separate samples were used to test the hypothesis. One hundred eighty-seven inner-London children were studied from two schools which were judged to be equivalent in terms of socioeconomic status, as measured by scales in use in England. A t-test verified that no statistically significant difference existed between the socioeconomic status of the two schools, both of which could be characterized as predominantly lower middle-and upper lower-class. To rule out the variables of teacher or school characteristics, achievement of children in the two schools before one school became informal was compared and no significant difference was found.

Secondly, a group of 13 pairs of siblings was studied in a suburban London school, where the teaching method was changed from formal to informal. Earlier children in the family, who were taught by traditional methods, were compared with younger siblings who attended the same school under the new informal approach.

*These data differ from those presented in the abstract because of a data processing error which was recently discovered.*
several years later.

Another analysis was conducted of reading scores of 47 children in a suburban junior school which received children from both informal and formal infant schools, soon after they entered the junior school. The scores were separated according to type of infant school attended.

In all three analyses, reading achievement was measured by the Holborn Reading Analysis Test, a commonly used instrument in Great Britain.

Analysis of the data by means of appropriate t-tests showed that there were higher means for children in the informal schools, but a significant difference was found only in the case of the inner-London schools, where the informal group scored significantly higher, at the .01 level.* (Tables 1, 2, and 3, attached, show these results.

Although these findings do not provide evidence for recommending adoption of the informal program, because there was no significant difference favoring the formal program, it was concluded that a commitment to an informal philosophy will not adversely affect reading achievement as measured by instruments currently used.

A number of educators in England who were interviewed believed that children in informal schools may well show superiority in developing a love for reading which is life-long, may develop greater comprehension abilities at a more rapid rate during their junior years than do pupils from the formal schools, and may read more functionally and independently.

The observations of one of the investigators indicated that there might be value in testing and comparing attitudes of pupils in informal and formal schools. Areas such as self-motivation, voluntary involvement, divergent thinking abilities, self-image, ability to work under minimum direction, to function cooperatively, to expressive oneself creatively, and overall attitude toward learning itself, are some in which informal education may well offer

* see note on p.3.
superior accomplishment, and should be investigated before a final judgment is made. The fact that the British, because of the peculiar structure of their educational organization and the almost unlimited power of the head teacher, have found no need to test these values should not deter the interested American researcher.

There was evidence that in the largest sample differences favored the informal schools, but this was not confirmed by the findings related to the two other samples, suggesting that the final decision for or against adoption of the informal program might depend on defining, measuring, and comparing other objectives of the program.
References


Table 1
Comparison of Reading Achievement in Inner-London Schools

<table>
<thead>
<tr>
<th></th>
<th>Formal</th>
<th>Informal</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>99</td>
<td>88</td>
</tr>
<tr>
<td>$\bar{X}$</td>
<td>5.80</td>
<td>6.91</td>
</tr>
<tr>
<td>SD</td>
<td>.99</td>
<td>1.53</td>
</tr>
<tr>
<td>t</td>
<td></td>
<td>5.78 *</td>
</tr>
</tbody>
</table>

* p .01

Table 2
Comparison of Siblings in Two Programs

<table>
<thead>
<tr>
<th></th>
<th>Formal</th>
<th>Informal</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>$\bar{X}$</td>
<td>7.14</td>
<td>7.29</td>
</tr>
<tr>
<td>SDd</td>
<td>.90</td>
<td>.53</td>
</tr>
<tr>
<td>t</td>
<td></td>
<td>.53 (Not Significant)</td>
</tr>
</tbody>
</table>

Table 3
Comparison of Reading Achievement in Suburban Schools

<table>
<thead>
<tr>
<th></th>
<th>Formal</th>
<th>Informal</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>$\bar{X}$</td>
<td>8.67</td>
<td>9.19</td>
</tr>
<tr>
<td>SD</td>
<td>1.59</td>
<td>1.60</td>
</tr>
<tr>
<td>t</td>
<td></td>
<td>1.06 (Not Significant)</td>
</tr>
</tbody>
</table>