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THE GROWTH OF CHILDREN IN CONSOLIDATED AND ONE-ROOM RURAL ELEMENTARY SCHOOLS

ELOISE HENSON AND RALPH H. OJEMANN

Every community, rural and urban alike, faces the problem of providing for the development of its children, youth, and adults. In providing for the school environment in rural communities two general plans have been adopted. One plan is based on the traditional, small, usually one-room school; the other on a consolidation of many districts into one large unit.

It is generally assumed in professional circles that the consolidated school is the superior of the two environments. In spite of this the growth of consolidation has proceeded slowly. Furthermore there appears in the mind of many tax-payers and parents the contrary assumption that "the little Red School House" has unique values in human development, that consolidation may be a mistake and that it isn't worth the cost. Just what these values are has never been clearly demonstrated.

For the student of development the effects of representative samples of the two types of environment present an interesting problem. From the theoretical standpoint all the advantages would seem to lie with the consolidated school. The more stimulating environment, which better trained teachers and a wider variety of facilities can supply, should promote increased mental growth. An enriched curriculum should provide more interest and adaptation to individual needs. The experience in larger social groups would tend to promote understanding of others and hasten social development. For the adults in the community, the wider social contacts, the experience in meeting and adjusting to wider differences of opinion would seem to provide greater stimulus for continued development.

Does experimental evidence support these assumptions? Does the consolidated school enhance the child's development and if so, what are the crucial factors? How can these factors be intensified so that an even more effective environment may be built for the rural child? This investigation was undertaken as one in a series to throw light on these problems.

In this investigation we are concerned with the growth of equated groups of fourth and fifth grade children. The subjects were seventy-two children enrolled in fourth and fifth grade classes and distributed equally between one-room and consolidated schools. The thirty-six consolidated children were enrolled in a large, centrally located consolidated school in an Iowa County. The thirty-six one-room children were enrolled in seven schools in the same county and in three schools in close proximity in the adjoining county.

The general method of study consisted in a comparison of matched pairs. Each one-room child was matched with a consolidated child with respect to age, grade, sex, occupation of father, and education

of mid-parent (half of the total number of years spent in school by both parents). Special care was taken so that data relative to the characteristics selected for comparative study were not at hand when the matched groups were prepared. The results of the matching procedure are given in the following tabulation:

Factor	One-room		Consolidated	
	Mean	S. D.	Mean	S. D.
Sex: Boys	15		15	
Girls	21		21	
Grade	4.42	.49	4.50	.50
Age	9.58	1.04	9.81	.88
Occupation of father	5.08	.99	4.92	1.39
Education of mid-parent	9.68	2.55	9.52	2.51

A modification of the Taussig scale was used in computing the mean occupation of the father. Few differences appear in the two groups and they were judged to be sufficiently alike to be considered equal.

The areas of growth selected for study included the following:

1. General intelligence. (Kuhlman-Anderson Group Test).
2. Attitude toward home and school. (Pintner, Moller, et al, Pupil Portraits).
3. Selected areas of personality development. (Pintner, Aspects of Personality).
4. Knowledge of selected social processes. (Specially prepared test).
5. Interpretation of human behavior. (Specially prepared test).

Tests were given to the two groups of children and the scores compared by the use of the formula for "t" for matched pairs:

$$t = \frac{M_o - M_H}{\sqrt{\frac{\sum d^2}{N(N-1)}}$$

M_o is the obtained mean and M_H the hypothetical mean.

When the equated groups of consolidated and one-room school pupils were compared the following results were obtained:

1. The consolidated group was significantly higher in general intelligence. The consolidated mean in terms of IQ was 109.27 and the one-room mean, 103.83. The difference of 5.44 is significant between the 1 and 2 per cent level of confidence. The difference was due to a general superiority of many consolidated children, and not to a few unusual cases.
2. Consolidated children were significantly higher on school adjustment scores. The school adjustment scores averaged 49.17 for the consolidated group and 37.03 for the one-room group. In the light of the norms of the test, the difference was due to the relatively poor adjustment of the one-room group, not

to the exceptionally high adjustment of the consolidated children.

3. The two groups did not differ significantly on a test of knowledge of modern living conditions and relationships.
4. A group attitude was more noticeable among the children in consolidated schools as contrasted with the more egocentric attitude of the one-room children. The subjects were asked to write what the teacher should think of before calling on a child who has his hand up for recitation in a class of fifteen. Answers centered around self-interest, the teacher, group rules and the group. The one-room children's answers related mainly to self-interest; those of the consolidated children to group rules and the group.
5. On the test for analysis and interpretation of behavior, consolidated children achieved significantly higher scores. This test involved the ability to see every-day situations, as favoritism, jealousy, and school bullying, in terms of motives and underlying causes rather than overt response. Consolidated children showed greater growth in analyzing behavior at its face value. It is possible that being in a large group enables children to see more types of behavior, to choose chums with certain selective criteria, and to see themselves as members of a group as well as individuals.
6. There was some evidence that the consolidated children showed greater leadership ability and fewer submissive qualities.

This study shows that as early as the fourth and fifth grade levels, significant differences appear in the growth of intelligence, attitudes, and social concepts in equated groups of one-room and consolidated school children. These data point to the possibility of building more effective environmental conditions through the consolidated school plan.

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