A comparative study of 26 special classes for mentally-retarded pupils.

Johnson, Annie Catherine
Boston University

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BOSTON UNIVERSITY
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A Comparative Study of 26 Special Classes
for Mentally-Retarded Pupils

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Submitted by

Annie Catherine Johnson
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First Reader: Dr. Helen Blair Sullivan, Professor of Education.

Second Reader: Dr. W. Linwood Chase, Professor of Education.

Third Reader: Mr. Robert L. Burch, Assistant Professor of Education.
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CHAPTER I

THE PROBLEM AND PURPOSE OF THE STUDY

The subject of Special Classes for mentally-retarded pupils in the schools is one that has long been discussed, and many educators have debated the problem of providing a proper education for children so handicapped. As yet, few of the constructive ideas advanced have been put into practice, however. Thus, in these days of changing educational progress, a great opportunity is offered for further study in this particular field.

I. THE PROBLEM AND PURPOSE

The study, now completed, on the subject of education of mentally-retarded pupils in the schools, was planned in such a way as to discover the scope of the different teaching and learning practices in use in the Special Classes which have been established in the New England schools. While it could not be dealt with from the standpoint of its full significance, a step that was not contemplated, its importance as a feature of education of children, to the learner and the teacher alike, has served as a challenge to effort along these lines.

The specific purpose in making this study is a dual one: (1) to analyze and compare a group of Special Classes rated on selected items that appear to modern educators to be the components of a good curriculum, and, as an outgrowth of this,
(2) to discover something of the composition of the Special Classes used in the survey.

II. SCOPE OF THE STUDY

It is well understood that to get a precise over-all survey completed, many specialists in varying areas of education are needed, people skilled in appraisal and evaluation, with ability to pool the various findings. Since that type of work was neither possible nor feasible, the investigation then hinged upon a special means of attaining some sort of measure, and it was decided to use a rating scale as a medium. No attempt was made to evaluate the teacher or the administration directly since teacher and administration are so inextricably woven together in making provisions for pupils. It became necessary to incorporate items relative to both, placing the focus of attention upon the experiences of the Special Class pupil as afforded through various media. The use of the rating scale limited the extent of the experiment. The study has been further limited through the use of 26 Special Classes in eight towns and cities with a radius of 50 miles of Boston.

III. NEED OF THE STUDY

The curriculum of the American schools has been under constant revision for the last few years judging by the reports of national organizations and special committees. Much
time has been spent in determining goals and objectives, procedures to be used, the kinds of materials and equipment needed, the experiences to be provided, in finding new ways of evaluating progress and of determining education in terms of what it should be. Committees, commissions and members of councils have studied these problems. Theoretical and practical minds alike have been taxed to find satisfactory answers to suggested curricula, some being idealistic and others more practical. Theorists and practically-minded educators therefore have made contributions to the field. As a part of this vast educational system, the Special Class has not been immune to these studies.

In the studies made on mentally-retarded pupils who are, or were, in Special Classes more time has been given to the study of administrative procedures, or to the uniqueness of the mentally-retarded child, than was given to actual practice in the classroom. No appraisal, therefore, was available of the present practices in the Special Classes of the New England area. Thus it has seemed necessary to study the Special Classes in order to find out what conditions actually exist, and to what extent the newer ideas in education along these lines have penetrated the class designed primarily for mentally-retarded pupils.

As justification for such a stand, Cutts¹ claims that

more studies are needed in order to throw light on the organization and methods of education. Hockett substantiates this statement and adds that little progress has been made so that the needs are as great as ever. Goodykoontz later stated that "public opinion is ready for appraisal and for a plan of adjustment commensurate with and equal to its changing needs and obligations."\(^2\)

That greater effort must be made to bring about desirable changes, has been recognized by Martens, who says:

We have for more than 25 years given lip-service to the principle of providing for individual needs through the school program, but we have failed to put into effect the practical changes required to make that principle function. The fault has been partly that of society in not supplying the tangible support necessary to put desirable school programs into action; but it has been equally that of educators who have not seen the total program or sought to find ways of coping with it. Organized and persistent efforts to bring about desirable changes have been successful in many other fields of social endeavor. They can be equally successful in bringing to realization full educational opportunity for the four or five millions of exceptional children and youth in our communities today.\(^3\)

In the light of such statements it would seem necessary to make some attempt, at least, to evaluate the present status of Special Classes now in operation. The results of conditions such as teachers not knowing, or not using, the most

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efficient methods of instruction and the best curriculum, and of the administration's not supplying the materials and equipment necessary for use in the schools, is a pedagogical waste to the pupil since, thereby, he fails to receive a maximum benefit from the school. It becomes necessary, therefore, to indicate or at least to suggest, that when such waste does occur the pupil is being cheated of his rights. The mentally-retarded child, as well as other children, needs to have extended to him all the opportunities that the school can provide.
CHAPTER II
REVIEW OF THE LITERATURE

The problem of designing a curriculum suitable for the mentally-retarded group has been an educational one for many years. It probably originated in the Special Classes movement in Europe.

In the United States, the first Special Classes for mentally handicapped grew out of classes for incorrigibles and truant boys. In 1896, in Providence, a school was established for the care and teaching of mentally deficient and backward children.

Special classes for backward and feebleminded children were started in Springfield in 1897; Chicago, 1898; Boston, 1899; New York City, 1900; Philadelphia, 1901; Los Angeles, 1902.

The concept of education for Special Class pupils has grown and expanded as the understanding of child growth and development has unfolded, and as educational procedures have been explored.

Most of the studies have dealt with pupil placement, administrative provisions, and follow-up studies. Many suggested programs, and programs found successful, have been reported.

I. CHRONOLOGICAL ARRANGEMENT OF STUDIES COVERING A NUMBER OF SPECIAL CLASSES

One of the earliest studies on the curriculum of the Special Class was that made of one hundred and twenty-five

classes in New York, in 1914, by Goddard. He found one class per school, in most instances, but often there were from two to six classes in which 2 per cent of the children were feeble-minded, as measured by the Binet Scale. The classes ranged from low imbeciles to high-grade morons, with an occasional normal or two.

Although a special inspector had been appointed, in 1906, to establish the classes, secure the teachers and place the pupils, the method of pupil selection was by recommendation of the principal, who passed the responsibility on to the teacher.

He found that the three "R's" and hand-work were the main methods of instruction. He seemed to think that the former were quite out of place in any curricula arranged for the education of mentally-defective children. But the manual work, although advocated, was found to be handicapped through a lack of adequate materials, trained teachers, and the presence of too many desks in the room, which cramped the work.

On the whole, the rooms provided were good, but they ranged from high to low in value. In the better-grade rooms there were work benches, tables, chairs, and a sand-table.

Goddard recommended that a special superintendent be appointed, having sufficient authority vested in him to enable

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him to deal effectively with problems which are incidental to classes for the mentally defective; and further, that a group be appointed, made up of five or more psychologists and physicians, whose function would be to determine which of the children should be placed in Special Classes. He thought that a greater number of ungraded classes were needed, and that the children should be given proper instruction both in manual training and in vocational work; and, in addition to having proper materials furnished, follow-up studies should be initiated in such a way as to throw light upon the value of the methods used. He considered that the Child Labor Laws ought to be modified so that mentally-retarded children might go to work as soon as those in charge of the schools, or classes, conclude that it is more profitable for them to be under the direction of their parents or in regular work than in the schools.¹

Appropriate domestic, industrial and manual training, Goddard concludes, should be the principal subjects taught, with reading, writing and arithmetic auxiliary to them. His final statement, in the light of more recent investigations, is illuminating, namely:

Those cities that attack the problem in a large way and establish a complete and intelligent system of dealing with defective children will soon find that many other problems, both educational and social, are greatly reduced in seriousness.²

¹ Ibid., p.74.
² Ibid., p.75.
One of the earliest groups of teachers to attempt any curricular studies was a Boston group that, in 1917, brought out a work called *The Boston Way*¹, a work written to assist teachers and mothers, everywhere, to help the child to find himself. The emphasis was placed, first, on sense training, to include sight, auditory, tactile, gustatory and olfactory training; and second, on physical training, to include motor coordination, posture, games, folk dances, and some emphasis upon hygiene.

The academic studies recommended were reading, to which great weight was attached, spelling, language, arithmetic and penmanship. Geography and history as subjects for study were suggested, music and art were given a place, domestic science, gardening and woodwork were recommended.

The following brief excerpts, culled from the chapters on Programs and After Care, respectively, are of especial interest in relation to this study, that is, "No program can serve as a model for all classes."² and

The successful teacher of mentally defective children owes much of her success to the follow-up work which she does with each child.³

It can be seen that curricula were slowly evolving for work with the mentally-retarded child. The presentation and

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² Ibid., p. 133.
³ Ibid., p. 134.
discussion of the Newark Plan, by Anderson, in 1917, aided in this. That only 2 per cent of the school population was mentally defective, she considered a conservative estimate.

According to the Newark Plan, the classes were divided into three levels, first, for the children whose mental ages were 2, 3, and 4 years, second, for children with mental ages of 5, 6, 7, and 8 years, and third, for children getting ready to go to work. The best among them could go into trade schools. Anderson considered that any child with a mental age over 10 years should be given the work for a backward, rather than a feeble-minded, child.

The use of music and physical training were stressed. Emphasis was placed upon cleanliness, sense training, manual training, vocational and industrial training, gardening, academic work, and on some speech work. It was recommended that a minimum period of time be given to teaching subjects which might not develop the child mentally, or that would not be of value to him socially.

The next study to be presented in the over-all picture of Special Class work was made by Odell in 1931. He made a non-statistical questionnaire study on one hundred and sixty-five Illinois classes. He found that the majority of the

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classes were at the Elementary School level, only a few at the High School level. From twelve to twenty children were enrolled in each class. In some schools there were only one or two classes, in others as many as four were held.

The I.Q. of these children ranged from 50 to 80. Those below 50 were looked upon as being too retarded to be educated in the Special Class. About 1 to 2 per cent of the pupil population were found to be in the latter bracket.

Classwork ranged in type from what amounted to a regular course of study, wherein rote memory was the only provision, to classes in manual training and other creative work. In all of the classes reading, spelling, arithmetic and language were taught. In some cases shops, kitchens and sewing-rooms were provided for the older pupils. When only one room was available, work benches, a stove, sometimes a sewing-machine, were installed.

Individual and group construction, involving the use of materials such as cardboard, paper, cloth, woods and metal, were observed. Attempts were made to build skills that would be useful in the home, and to provide citizenship training.

The group organization included groups ranging from one to four, with project or unit assignments given. Individual work also was stressed.

The typical housing found for these classes was that of a room to be used by one group for the entire day. Some
schools had rooms in which classes were held to provide a program for children who needed special help, but such space was rarely found for retarded children.

On the whole, the aim seems to have been to assist inferior pupils to become satisfactory members of the community, not merely to keep them happy or busy, as was suggested by the curricula of other schools of that era.

In placing pupils in such classes, Odell sensed the need of utilizing individual intelligence tests even while he considered that a clinical examination would be preferable. He advocates the use of the Stanford Revision of the Binet-Simon Scale, to be given by trained examiners. Recommendations for these examinations were made by the teacher, or the principal, depending upon the results of poor achievement or the scores from group tests. Permanent placement for children with I. Q's below 75 was advocated.

Odell considers that a number of high schools, and some elementary schools, were doing good guidance work in choosing subjects for their pupils, but advocated more guidance in the vocational areas as well as in adapting the work to the capacities, interests and characteristics of the pupils.

Witty and Beaman's report, based upon data from thirty cities and five hundred and eighty-eight classes, in 1932,

showed twice as many boys as girls in Special Classes. Selection for class membership was based, first, on the Stanford-Binet test, with teacher judgment, psychologists' opinions, and other tests, serving as the next criteria. Although data was supplied over a wide range in chronological ages—from 5 to 21 years, mental ages—from 2 to 5-3 years, and I.Q. findings from 20 to 116, nevertheless little helpful interpretation was provided.

Witty and Beaman claim, since the need for more adequate play life was noted, it might well aid in the development of a more effective curriculum.

In all of the thirty cities the majority of the Special Classes were located in grade-school buildings. Two cities assigned all of their Special Classes to special schools or centers, and seven used both special schools and elementary schools. Subject matter, and instructional methods, resembled those used in the regular elementary schools.

Only three, in all of the cities, reported activity programs, in twenty-seven classes. According to Witty and Beaman, "the majority of Special Classes offered the traditional subject curriculum of the elementary grades, supplemented by handwork." ¹

Lack of proper equipment, trained teachers, and a ten-

¹ Ibid., p.5.
dency to follow the usual patterns, seem to have been the main reasons for failure to introduce more appropriate work. Even the junior high schools, and the vocational schools, gave more practical instruction in handwork.

Reading and its related activities, spelling and arithmetic, were allotted about 2 1-6 hours of time, and handwork was allotted 1 and 5-10 hours. The rest of the day was used for physical education, penmanship and music. "Herein," says Witty and Beaman, "one sees the drill subjects of the ordinary elementary school. The rigid time schedule appears to typify most schools and few activity programs are reported." 1

The data showed a need for the scientific development of the curriculum, the formulation of more appropriate techniques for instruction, and a better adjustment of work to the varying intellectual levels and interests of the adolescent.

At the age of 14 years pupils were allowed to withdraw from the Special Classes. However, they rarely withdrew until they were 18, the age to go to work. Some of them went on to the regular grades. The jobs filled by boys were as helpers in trade, service helpers, unskilled factory workers, or they were employed in transportation or delivery work. The girls went into factories, took service jobs, worked in stores, or were employed in offices as clerical workers.

1 Ibid., p. 6.
Eighty of the classes made provision for follow-up programs for one year, fourteen for 2 years, and twenty-seven for from 3 to 5 years.

For the purpose of determining valid principles as guides to setting up a suitable educational program for the Special Class, Featherstone\(^1\) tried to find out whether or not sound educational principles could be used with pupils of all degrees of intelligence. Accordingly, he reviewed the essential features of behavior and learning, then he questioned why variability of intelligence should be "the criterion for differentiating among all sorts of educational procedures."\(^2\)

Next, he tried to discover the characteristics of the current methods and to judge their position on the scale. Finally, he examined the literature related to education of the mentally handicapped, in search of evidence of sound guidance to desirable practice.

His conclusion was that naturalistic patterns of behavior are essential for transfer. Basic to this are certain principles which, he says, are no different for the Special Class than for any other class. He points out that there are degrees and varieties of application, however, and this is where the teacher plays a part, since the point of view of the teacher is the most important factor in building on a

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2 Ibid., p. 9.
naturalistic situation. She needs to keep her attention on an abstraction—the relationship of the individual and the environment as interacting aspects of one thing. The teacher, in short, must see

the curriculum as a series of purposive experiences (the definition of objectives—the perception of closed circuits of events which bring adjustment and increasing control) each succeeding one of which effectively pursued, carries the individual (along any particular line) to new heights and wider achievements.¹

These purposes should be intrinsic, the activity self-sustaining. Here again, the teacher should play the part of guide, alert to discovering purposes and situations in which the pupils might learn, anticipating some of the results, knowing when to stimulate to activity, and discovering self-revealed purposes that are valuable or the reverse. These intrinsic purposes, especially for mentally-retarded pupils, seem to arise from first-hand or phenomenal events. For this reason, the use of the environment, together with manual work, is suggested. Sensory perception should be widely utilized, instead of so much reading and reporting. In other words, education should begin with experiences and work up to generalizations.

Featherstone says further, that educators need to be familiar with the interests and purposes of Special Class pupils, the interest span that permits worthwhile values to

¹ Ibid., 114.
to be gained, the talents and aptitudes, the degree of independence between more or less discernible aspects of intelligence, and finally, the type of school that would best supply the needs of the integrated personality of each child.

Nor does Featherstone consider that one mental measurement is sufficient to determine the fate of the whole child, nor does he endorse homogeneous grouping on that basis. He claims that inflexibility in curriculum is due to unwise practices but that, even with all of its flaws, the less exacting atmosphere in the Special Class has helped to eliminate emotional tensions and disorders. He sees no reason for complete segregation. He feels that the teachers often were to blame for the stigma attached to Special Class pupils because of the remarks they themselves made about the pupils. He conceives of a Special Class integrated with regular school activities so that the disadvantages of segregation may be offset.

Trends are brought about slowly and often are hard to determine. Knapp,1 in a comprehensive study that included Special Class work for mentally-retarded pupils, undertook, in 1939, to discover trends. He reviewed the literature regarding adjustments to individual differences covering the period between January 1929 and January 1939. He checked

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these provisional policies in the course of a survey of twenty-one school systems widely scattered over the whole country. He found that psychological clinical procedure, teacher judgment, social and emotional handicaps, environmental and physical factors, and heredity, were employed in the placement of pupils. He also found that the larger schools were establishing custodial classes for those pupils whose I.Q. ranged from 35 to 50. Since the schools had a social goal as one of their aims, sex segregation was scarcely practices in the Special Classes.

A functional curriculum, characterized by elasticity and flexibility, was being used. This program was remedial, corrective and developmental, and was suited to the needs of the pupils' mental capacities.

At 14 years of age pupils were up-graded to junior high schools, or to pre-vocational schools, and, at 16 and 17 years of age, to the senior high schools. Placement in these classes was determined on the basis of pupils' ages. Certificates were awarded for a satisfactory completion of the program. Knapp also found that pupils with an I.Q. of 70 many times finished their junior high school work on a diversified curriculum.

Manual work in general trade training, or the low-skill trades of the locale, was used. Whenever possible, the vocational guidance consisted in giving needed skills, in pro-
4. Definite training in specific and moral habits should be given.

5. Training for leadership in activities in which the child has had the necessary ability for leadership is necessary.

6. It is unfair to dull-normal pupils to make participation in extra-curricular activities contingent on a relatively high standard of scholastic achievement.

7. Recognition of the educational value of all types of mental imagery should be given.

8. Formal instruction should be interspersed with periods of relaxation and recreation.

9. Instruction should be camouflaged, whenever possible, with a spirit of play, dramatization, or competition.

10. Oral expression on the part of the pupils should be encouraged and emphasized.

11. The aim should be to develop the abilities of each pupil—not to correct irremediable defects or to develop abilities beyond the pupil’s capacities.

12. The tempo of class activity, or activities, should be such as to give the pupils sufficient time to think.

13. The preliminary and preparatory steps necessary to launching each new activity, are:

   a. to state clearly and specifically what is the goal of the activity.

   b. to explain and give examples which will supplement the statement of the problem and insure the understanding of the sort of attack desired.

   c. to question the pupils in order to make certain that they comprehend clearly what they are expected to do.

14. The teacher should arrange questions which such pupils will comprehend.

15. Each question should be answered and each problem satisfactorily solved before another is introduced.
viding related knowledge for application of those skills, and social and economic knowledge for the occupational group; exploratory courses, aptitude tests, and part-time work experiences, were included, qualification for jobs being a part of the program. The schools helped these pupils to secure employment, contributed to the understanding of the employer, and used follow-up work for several years after the pupils had left school. Cumulative records were available for teacher use to insure better personal guidance as well as to aid in individualizing the program.

Special abilities in the realm of art and music, leisure-time reading, and manual arts, were considered, as were out-of-class activities and hobbies. The programs were geared to provide an understanding of genuine life values.

In his work, "Survey of Practices and Trends in Administrative Provisions for Individual Differences," Knapp has stressed the need of keeping certain salient points in view when teaching mentally-retarded pupils. These he grouped under the heading: Adjustments in Classes, as follows:

1. Every subject taught to the dull and retarded pupil should have genuine life value.

2. Practically all of the dull and retarded met with in our public schools should be taught music and art appreciation.

3. Much reading of the varied types, narrative, descriptive, factitive and directional as well as appreciative, should be given dull and retarded children under the academic names of literature, social studies, mathematics and vocational work.
15. The class discussion should be paralleled with a written outline of the different points.

16. The class discussion should be interspersed frequently with summaries.

17. It is good practice, especially in review and drill activities, to allow pupils to explain to the class points which they are prepared to discuss.

18. When written short-answer tests are administered, it is good practice for the teacher to read the items orally before proceeding with questions of the next.

20. When a group is taking up new work under the teacher's guidance, oral reading is more effective than silent reading; also such reading should be done by the teacher rather than by the individual pupils in turn.

21. When covering new textbook material, the teacher should explain the passages as she reads them.

22. It is good practice, when new terms are introduced, not only to write them on the blackboard but to print them.

23. The dull-normal should be encouraged to engage in recreational reading.

24. It is good practice to make sure that pupils recognize important points in a textbook illustration.

25. Instruction starts at the child's achievement level, and not where he should be for his age.

26. Content appeals to and holds interest of child and has practical value.

27. Following the class period, each pupil should be required to complete an out-of-class assignment demanding the performance of some simple task.1

In an attempt to discover what courses were covered in a selected group of one hundred elementary school Special Classes, in 1940, sixty-nine replies were received from a question-

1 Ibid., pp. 178-179.
naire sent out by Olsen. She found that the I. Q. range was from 40 to 125, with only 1.5 per cent of the pupils enrolled. Twelve of the schools had homogenous grouping on four levels within the system, and the mean maximum age was 16-4. Attempts were made by twenty-one schools to place Special Class dismissals or "graduates," in trade or vocational schools. Sixteen schools reported job placement, and six reported some type of junior high school placement. Methods of instruction included: (1) academic subjects, with emphasis placed on remedial work, (2) academic subjects and industrial arts, and (3) social studies, with academic and industrial arts integrated.

Olsen suggested the elimination of traditional programs, the substitution of an activity program, the introduction of social affairs and vocational training more vital to the needs of the pupils, and the inclusion of progressive methods of instruction and utilization of scientific measurement of results. A follow-up program also was recommended as being an integral part of the total plan for work with mentally-retarded pupils.

Gossard made a review of five hundred and forty-nine annual school board reports which served as a basis for

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locating provisions in public schools for both superior and backward children. He found not only that departments of guidance aided in meeting individual needs but that Special Classes for the mentally-retarded group were growing in number. Classes for pupils having an I. Q. under 50 were provided, centers for older pupils predominated, pre-vocational classes were being offered, and a few systems had Special Classes at the secondary level. He found combination plans calling for more practical courses for backward pupils were being given cognizance, and that there was a modification of working materials, all of which added, incidentally, to the educational cost of the mentally-retarded group.

Gossard felt, too, that the type of instruction given in vocational and industrial schools was still far from adequate for backward pupils, that reading presented one of the most pressing problems, and that there was a dire need of cumulative records. In addition, he made recommendation for free work periods, correlation of subjects, and extra-curricular activities.
II. OTHER STUDIES RELATED TO THE DEVELOPMENT OF MENTALLY-RETARDED CHILDREN

In this section of the study it would seem necessary to enlarge upon certain fundamental aspects of education not wholly related to the Special Class, in relation to work with the mentally-retarded child, and to consider some of the salient points necessary to the development of the child, as well as to outline a few of the methods which have been advocated for use in the field.

Basic to the planning of the curriculum of the Special Class is the attitude taken by Hollingworth who looks upon it as of fundamental importance for educators to realize the fact that mentally-retarded children differ only in degree, not in kind, from average children. She says:

It follows that no mysterious or unique matter or method is necessarily required in the task of training them. They can learn the same things that other children learn, up to the limits of their capacity. We need not look about for unique 'psychological methods,' 'linguistic methods,' or 'medico-pedagogical methods,' nor may we hope for any special results from them. The feeble-minded differ from the ordinary children only in amount of ability, not in the kind of abilities which they possess.

She further states that education should be based solely upon mental age, although she did place much emphasis on certain factors as may be seen. She said in part:

Mental age is the single most important condition. The human mind is far too complex to be completely inventoried by a single figure representing the general level of intelligence. We find cases of very marked special ability or disability in the feeble-minded, just as we find them in children of every other quality of general intelligence. Moreover, differences in temperament, interest and control, which are not intellectual traits, are found among persons of equal mental age, and they too exert an influence on learning, by determining attitude. General defects and physical defects sometimes play a part, also, in producing differences in improvement among those of the same degree of general intellectual capacity.

Hollingworth claimed that specific, desirable habits should be inculcated to the limits of the child's native capacity, "without changing that native capacity, which is all that education can do for any child, normal, subnormal, or super-normal."²

More recently, Featherstone³ has stated that it is unnecessary to emphasize a different curriculum for the Special Class since basic teaching principles should be applicable in their essential character to any type of class or school system.

Thus, if educators were to direct their attention toward growth programs which would enable them to place proper emphasis upon education, then the recommendations of the White House Conference on Children in a Democracy, would become acceptable. That is:

1 Ibid., pp. 185-186.
2 Ibid., p. 205.
The supreme educational and social importance of individual traits should be recognized throughout the educational system. An educational system that truly serves a democracy will find no place for the philosophy, or the methods, of mass production. ... Schools should give increased attention to the educational needs of individual children, including those who are ... mentally retarded ...; these needs should be met with minimum emphasis on the handicap.¹

The basic need of concreteness and interest with regard to the curriculum of the mentally-retarded child, was stressed by Wallin, in 1924. He claimed that teachers needed to thoroughly re-vitalize their instructional systems, use newer devices and more effective methods of teaching, and strive to reach the whole child

through dynamic incentives, concrete presentations, vital projects, cores of correlation and constructive activities which appeal to the children's instincts, nascent interests, and felt needs.²

Frampton and Rowell, too, endorse the value of such media:

Since these children learn most easily in concrete situations, it follows that the teacher should provide opportunity to practice in a real situation those skills which the child needs to learn. While such practice may be necessary, the teacher must not lose sight of the fact that practice without interest is not economical.³

In the White House Conference on Child Health and Protection, it is pointed out that a great deal more attention needs


to be given to seeing that concrete material is provided for academic and industrial training than has been done up to this time, since:

The subnormal child will get verbal, not real, images from words such as 'democracy' and 'citizenship.' He must proceed toward maximum development by the process of covering concrete instances.¹

As to the provisions made for individual differences, the whole of the field of the present-day system of education might well take cognizance of such essential and concrete needs. Even as early as in 1920, Hollingworth indicated such needs. Note the following:

It is apparent that no intelligent plan for the instruction of a child can be instituted until his mental level is known.... and, in the second place, the child will generally be capable of performing school work which can be mastered by average children of his mental level.²

In her study on maturity levels, Kelley states that it is essential to the education of the mentally-retarded child to consider his mental level and other existing factors. She emphasizes the need of keeping in mind that the child is an individual, thus:

Each person, besides being different from every other person, has within himself a hierarchy of differences that constitute his personality and education. Clinicians should be thoroughly cognizant of the part that is theirs. They must be mindful that it takes no more effort--probably less, to guide a child

through the various stages of growth by the proper knowledge of the states of maturation than to allow him to arrive at the point, when growth is done, of having his capacities and his reasoning in a horrible jumble.

To avoid this, educators and clinicians should weigh the individual's possibilities, find what capacities he is short on and what he is long on, determine his aptitudes and propensities, and program accordingly.

With the mentally retarded, especially, this will make for individualized instruction, a confidence to succeed at the tasks within their grasps, and a sympathy and understanding which one person should mete out to another.

Martens deplores the fact that teachers and educational heads find it so difficult to get away from the cut-and-dried curricula of the past. She says that the very foundation upon which Special Classes have been built has made it essential that greater freedom of expression, in self-expressing activities, should be promoted for these children. She states, in part:

Yet the possibilities of such a program are by no means universally recognized, nor its principles applied. There are still many teachers ... who think they are making adequate adjustment of the curriculum when they reduce academic work to its minimum essentials and allot a considerable portion of the day's program to manual work of one kind and another. They still carry on a program in which each subject fits into its own tight compartment. They realize and let the children realize none of the joy that comes from tying together into one major activity all the elements which help to develop the skills, and habits, and attitudes that they are trying to teach.


The tool subjects, especially reading, should be well adjusted to the needs of the child, having the emphasis put on recreational reading and on the use of the library, according to such educators as Frampton and Rowell, Wingertszhan and Rhodes. Heck developed a new thought in connection with teaching of the academic subjects, namely, that properly adjusted academic work should be included in the curricula with attitudinal development stressed through an intelligent application of their use; and that teaching should be done in such a manner as to give the pupils, consciously or unconsciously, a practical grasp of and insure their interest in the true balancing of life's values. This would prepare them for world citizenship. That is, the fundamental processes of arithmetic, for example, along with the concrete work involved, might include as well the development of a live interest in problems of household and personal budget-keeping and the inculcation of business habits and attitudes. Also, non-technical work in political, social and economic cooperation might be made an intrinsic part of the different academic subjects while biography, according to Heck, might be used to emphasize courage, courtesy, industry, kindness, loyalty, neat-

1 Frampton and Rowell, op. cit., p. 339.
ness and truthfulness.

The protection of the individual characteristics of the mentally-retarded child has been discussed by Ingram,¹ who says that, in actual practice throughout the country, many variables exist in the grouping of pupils in Special Classes. Basic to the program, however, is found the teacher's knowledge in the background of each individual pupil, such as his school attendance, his grade repetitions, and his personality adjustment. She believes that the program for the slow-learning child in any grade, but especially in the Special Class, must be flexible "so that the individual pupil may be one of a group but work at his own level of accomplishment."² Such pupils could be grouped according to age similarities, abilities and interests, in order that the program can be geared to their requirements, with opportunity for adjustments, the development of the whole child being the chief concern of the program. A program which progresses from year to year should enable the child, as he works toward standards and accomplishments, to evaluate his own rate of progress.

The well-being of the child seems to be Ingram's first consideration. This includes detail such as "classroom con-

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² Ibid., p. 412.
ditions and individual problems, much of the responsibility falling on the classroom teacher."¹ Emotional stability and social habits and attitudes are looked upon as far more important than is training in school subjects. The adjustment between school and home is counted an important health factor, and its interpretation becomes a social responsibility. The value of record-keeping is stressed. Ingram reminds that "the schools are recognizing more and more the need for recording this kind of information in permanent and cumulative form, for all children."² Variety in the learning situations also is looked upon as important. There should be an intelligent provision for much activity in the field of industrial arts, too. This educator warns, however, "that specific instruction in the tool subjects must be provided."³

Ingram claims that the educational implications concerning industrial follow-up studies would seem to indicate a need of helping pupils to find jobs suited to their capacities, to develop such traits as self-confidence, punctuality, courtesy, industry, and of fitness and tempo for the job plus employer understanding.⁴ She asserts that the school should continue to supervise the mentally-retarded youth in whatever vocational field that may be open to him until such time as he shall have become satisfactorily adjusted to his new en-

¹ Ibid., p. 212.
² Ibid., p. 161.
³ Ibid., p. 211.
⁴ Ibid., p. 212.
vironment. In short, he should be given follow-up guidance for at least two years after he has left school. Constantly, in her search for satisfactory goals of education for mentally-retarded children, Ingram puts the question: "Does it promote desirable working habits and attitudes?"¹

In 1939, a 7th grade experiment was carried on by Lovell and Ingram,² using forty-one girls who had been 3 years in Special Classes. The age range of these girls was 14-6 to 16 years, and their I. Q. ranged from 65 to 75.

These pupils were assigned to a home room under a special teacher and were given an integrated program, including laboratory work in home economics and science, as a means of helping them to become socially integrated so as to be able to make themselves acceptable, alike to teachers and pupils, in the high school set-up; to enable them to shoulder their responsibilities in family and community; to obtain an understanding and appreciation of the functioning of citizenship and government; to acquire those habits, skills and attitudes which are needed for occupational adjustment; and to acquire, also, some knowledge of local occupational opportunities. A regularized program of studies was given. This included a core of English, social studies, and mathematics. At the time that the program was reported it had already been in operation for 7 years, with variations due to specific studies. In 1941,

¹ Ibid., p. 330.
there was added a food preparation and cafeteria division, child care, and a family meal course for 15 and 16 year-old girls.

By 1946, girls were taking part in all of the school programs, such as school government, drives, after-school clubs, library and swimming activities, school dances, assemblies and other activities. Those pupils "who showed marked poise and good speech had opportunity to try for parts in the 7th and 8th year plays."¹

Such a program naturally gave status both to the class and the individual, since

This guidance core utilizes Social Studies and English for finding out about local and related world industries, charting jobs for beginners, discovering knowledge and skills required and finding out about service jobs, discussing personal assets, and working out application forms and letters. In mathematics, knowledge and skills in working out rates of pay, worker's time sheets, work of timekeeper, bookkeeper, income tax, social security and other forms of work problems related to arithmetic are taught. Visits to at least ten types of work places are made, depending on the pupil interests and needs. Visits also are made to the United States Employment Services where the girls are taught about applying through them for jobs.²

A cumulative record card was used to designate job placement, and a follow-up at intervals was looked upon as a part of the teacher's job. In the course of the 1945-1946 school

¹ Ibid., p. 578.
² Ibid.
year, it was learned that all of the 8th-year girls who left school had been placed occupationally. The majority of them had followed through the contacts made with personnel managers in the industrial plants visited and had kept the jobs given to them up to the date of the last check-up of these educators.

Since measurement has played so large a part in the education of the mentally retarded, Doll's\(^1\) suggestions are worthy of note in connection with Special Classes, namely, that group and individual, verbal and non-verbal tests are needed and specific reckoning with the consequences of reading disabilities, language handicaps, sensory and motor limitations, test-situational motivation, and other embarrassments related to the reliable measurements of native capacity. As Doll says, a great deal of significance is attached to the social and vocational programs, especially the former, which afford a distinction between feeblemindedness and intellectual retardation. He states:

The crucial issue is the serious difference in the educational objectives for those who will always be feebleminded, as contrasted with those who as adults will be marginally sound. The former will require some degree of social assistance and supervision, while the latter will be socially self-sustaining. Education for the former should therefore be directed toward the inculcation of habits and virtues which

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\(^2\) Ibid., p. 578.
will minimize the social consequences of social dependence while maximum initiative and resourcefulness should be encouraged for those who will be socially self-directing and self-supporting.

May reports the use of the psychological test with emphasis on the Binet Scale, achievement tests and mechanical ability tests for measuring pupil growth; on health records, both physical and emotional; on the use of social maturity scales, self-descriptive inventories and anecdotal records.

The pupil's growth was reported to the pupils through self-descriptive inventories and the self-guidance program. The parents received their reports through the interview technique, preferably in person but sometimes over the telephone, or by report cards which indicated skills and social relationships. Complete logs, together with an overview of the class, the year plan and bibliography, an occupational survey of the manual phases of the skills growth plus progress and personality growth, and samples of questionnaires which are used with the pupils showing interests, abilities, aptitudes, and appraisals of academic achievement, occupational interest and general history of the pupil, were sent to the guidance counselor and supervisor.

1 Ibid., p. 572.

Follow-up studies are made as soon as the pupil leaves the Special Class for employment. The individual then gets a letter from the suggestion that he contact the bureau for further help if the occasion arises.¹

This intensive program shows trends as recent as 1946.

In an experiment conducted in 1945, Keefe² enlisted the cooperation of employers in the community and teachers in the school to promote a program of ten units of study for older boys whose mental ages were 10-10 and whose I.Q. average was 75.5 to be used in connection with part-time work. There were found limitations to job opportunities, "Strength, dexterity and coordination, or those skills which are required for semi-skilled and unskilled occupations,"³ were made the main requisites for whatever jobs she could arrange.

It was found that on the whole the ambitions of these boys varied during the year. They were eager to work, however, a desire which seemed to increase as a result of the program. These ten units of study covered considerable ground.

They provided occupational information, true value of productive and service occupations, understanding of employer-employee relationships, discipline under industrial conditions, increased knowledge of local job opportunities and something of the field in which the individual might be successful.

The school program incorporated trips to plants, opportunities to learn about the skill required through shop training, opportunities to make simple job analyses,

¹ Ibid., p. 141.
³ Ibid., p. 135.
the need for safety precautions on jobs, the value of promptness, courtesy, cooperation, and responsibility while working, the motivation for more practices to gain in perfection, the appreciation of good craftsmanship and the relationships of skills in the units to occupational skills.1

Reading, language, spelling, arithmetic and social studies formed a background for the units of study. All of these subjects combined with the visits they made to different industries, and their part-time work experiences, probably influenced their ambition to work.

A follow-up study, made by McKeon, of two hundred and ten boys who had left school between January 1932 and June 1942, showed

that 83.25 per cent of the group had left school at 16 years of age, 79.52 per cent had no formal education beyond the Special Class, achieving a median grade level of IV-1. 20.48 per cent went on to junior high special class, regular junior high, commercial or trade schools and 5 per cent achieved success. The average I.Q. of the group studies was 69.31 and they had spent over 4 years in special classes. 25 per cent of these boys had delinquencies recorded against them. The I.Q.'s of this group were scattered from the lowest to the highest.2

The boys who had participated in war programs, both in the armed forces and in defense jobs, had made successful adjustments. Unskilled and semi-skilled work was the occupational level of the majority, most of these jobs having been found by the boys themselves.

1 Ibid., p.141.
2 Rebecca M. McKeon, "A Follow-Up Study of Special Class Boys who Attended the Ledge Street School at Worcester, Mass., during the Years 1932-1942," (unpublished Master's Thesis, Boston University, Boston, Massachusetts, 1944).
McKeon considers that those boys below the Grade 3 level "should challenge Special Education," and have an educational follow-up through vocational training and placement bureau facilities with a view to bringing about community adjustment.

Still another study, made by Kellogg, was of one hundred boys who had left school between the ages of 15 and 20 years:

Of the eighty-seven who were employable, eighty-two report that they had worked at some time since leaving school, and five had never worked. The remaining thirteen were in schools, institutions, or C.C.C. camps. Since forty-seven different kinds of occupations were listed by the boys, all coming under skilled or semi-skilled classifications, no record of the turnover on the jobs is given.

These boys had little idea of their capabilities or of how to look for a job, and they showed, besides, a definite lack of vocational guidance or preparation. Kellogg says:

They were floundering in a sea of unemployment. Of the eighty-seven who were employable, eighty-two report that they had worked at some time since leaving school, and five had never worked. The remaining thirteen were in schools, institutions, or C.C.C. camps. Since forty-seven different kinds of occupations were listed by the boys, all coming under skilled or semi-skilled classifications, no record of the turnover on the jobs is given.

These boys had little idea of their capabilities or of how to look for a job, and they showed, besides, a definite lack of vocational guidance or preparation. Kellogg says:

They were floundering in a sea of unemployment....

58 per cent of these boys had had no training beyond Special Classes.... 42 per cent had entered grades 7 and 8, the high school, or trade school, with one having a trade school diploma and two having high school diplomas. The average I.Q. of this group was 73 and they had spent over 3 years in Special Classes. Thirty-five per cent.... had delinquency tendencies.

An extensive study covering a period from 1935 to 1945, to investigate the nature and degree of change in behavior of children formerly classified as feeble-minded, was made:

1 Ibid., p. 7.
2 Roberta M. Kellogg, "A Follow-up Study of 100 Males Who Spent Some Time in the Special Classes in the Public Schools of Newton, Massachusetts (unpublished Master's Thesis, Boston University, Boston, Massachusetts, 1941), 95 pp.
3 Ibid.
4 Ibid, p. 76.
by Schmidt. It was done
during and after participation in a school environment
planned to decrease nervous tensions, remove
emotional blockings, further social interaction, and
develop self-confidence and a sense of personal worth.

The subjects used were a group of 322 boys and girls between
the ages of 12 and 14 years, whose I.Q.'s ranged from 27 to
69. Two hundred and fifty-four of these children were in
experimental centers and the others were in control centers.

In order to be able to determine the curriculum
requirements, Schmidt investigated the needs of the children
through the use of standardized tests, school and employment
records, relations with social agencies, interviews with
parents, teachers, employers, and the children themselves.
The findings for the experimental group, at the end of the
8-year period, showed that 27 per cent had completed work
in high school, and 5 per cent had gone beyond high school.
Of these, 83.4 per cent were regularly employed, many of
them in skilled jobs and a few in professional jobs. The
personal and social adjustment of 79 per cent of this group,
moreover, equalled or was better than one-fifth of well-
adjusted adults.

Schmidt records that:

On test intelligence, individual over-all change

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1 Bernardine G. Schmidt, "Changes in Behavior of Origin-
ally Feeble-minded Children," Journal of Exceptional
Children, XIV (December, 1947), pp. 67-72, 94.

2 Ibid.
for the 8-year period ranged from a drop of four I.Q. points to a gain of 71 points, with a medium over-all change of 40.7 points. 80.7 per cent of the group exceeded a gain of thirty I.Q. points; 59.3 per cent reached, or exceeded, a gain of 50 points. By the end of the study only 7.2 per cent were still classifiable as feeble-minded and 59.7 per cent were classifiable as high normals. 1

Marital and economic adjustments were satisfactory, only one court charge being recorded, that of sexual promiscuity, and the same girl bore a child out of wedlock.

The control group showed 13 per cent employed at much lower salaries, and all were in unskilled occupations. None had continued their education beyond the center. Eight of these girls had borne children out of wedlock, and all but one of them were dependent upon the community. On intelligence retests only four of the control group showed gain and that less than four I.Q. points, with losses ranging to 22 points.

The program which was set up for this experiment would seem especially pertinent to the needs of this study. Note what Schmidt says in relation:

The experimental centers made no assumptions of ability to learn, or a lack of that ability but, instead, based the program on what was needed to release emotional blockings and tensions, and to develop confidence and the skills of social interactions. The program was directed toward these goals: (1) development of desirable personal behavior; (2) improvement in the functional skills; (3) development of the manipulative arts; (4) improvement of work and study habits; (5) learning of vocational information; and (6) pre-employ-

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1 Ibid., p. 68.
ment experience. Extensive use was made of visual and audial aids, of excursions, of creative and dramatic play, always with the emphasis on pupil-planning and participation, and with the development of self-confidence as the keynote to method.¹

III. SUMMARY

Part I

According to the evidence covered in the first section of this chapter, it has been seen that while Special Class work is of comparatively recent growth in America, planning for the mentally-retarded has been in the forefront throughout the history of education.

The Binet Scale, in some form, extended back to 1914 and is still being used today. Other standardized tests were added gradually for placement purposes and to aid in individual adjustments. Clinical diagnosis for placement has long been advocated, as may be noted by Goddard's, Featherstone's, and Knapp's studies, which typify three different decades of educational development.

Differentiation of programs for children having I.Q.'s below 50, were early recommended but only two of the studies reveal data showing special classes for these pupils, namely, those of Knapp (1939) and of Gossard (1940). Pupils with an I.Q. of 70 were found by Knapp to have completed junior high school on adjusted curricula.

¹ Ibid., p. 72.
The curriculum has varied from one in which the "3 R's" plus handwork, was primarily used, to those which included music, art, physical training, play life, hobbies, extracurricular activities, out-of-school activities, social affairs, and practical experiences. Varying degrees of use of these learning materials may be noted. It is found that Featherstone suggests that methods need be no different for the subnormal pupil than for the normal pupil. Emphasis on a more natural presentation of work should be of value to any child.

It was found by Olsen as late as 1940, that the traditional curriculum was still being used. The use of tool subjects, as tools rather than as ends in themselves, was implied by Goddard, in 1914; but the actual follow-through of this idea is still to come. Although Knapp showed a trend in this direction in 1939, Gossard, (in 1940) says that one of the greatest weaknesses of school systems is the lack of provision made for raising the reading levels of the pupils.

The supplies to be used by the pupils has been a moot question throughout the years, and Gossard suggests that it still is. The kind of physical set-up in the room, together with the need of adequate space, was indicated in several of the studies.

Although social significance was pointed out by Anderson, in 1917, and development of the whole child suggested in
other early studies, Knapp was the first to make any definite report concerning the social goal as an educational aim, both in the type of program and in the placement of pupils. Olsen says too, that some social recognition in the four levels of grouping, as well as placement in trade schools, be made. Gossard also implies his awareness of such needs but tempers the implication by saying that "centers" are predominant.

Cognizance of the individual goes back as far as the first study that was reported. Its meaning, however, has grown consistently. Small group and individualized work was touched upon by Odell, in 1931, mentioned by Witty and Beaman, stressed by Featherstone, and found in actual practice by Knapp. Some guidance trends were found by Olsen and also by Gossard. The majority of those making studies have indicated a need for more individualization of work, the use of cumulative records, and vocational training, all of which have tended to take on a more precise form in recent years.

The question, however, naturally arises: to what extent have any such suggestions been utilized in modern classrooms?

IV. SUMMARY

Part II

At the beginning of the second section of this chapter, it was stated that aspects of education for mentally-retarded pupils, and other data dealing with the development of the
that had not been discussed before, would be touched upon.

Thus it has been stated that the intellect of the mentally-retarded child differs only in degree not in kind from that of normal children. This discovery has made it possible to use the same type of teaching media for each group. By actual practice, and by using the curriculum designed for mentally-retarded pupils, they have been helped to make good. The media used has to be suited to the individual idiosyncrasies, must be greatly revised so that from the standpoint of concreteness and vital interest, as well as through effective methods of putting it across, this media may contribute to the needs of the whole child. It is stressed that there should be better opportunities offered by which pupils may practice in real situations.

It would seem from the evidence that the potentialities of the child must first be determined before any effective instruction can be provided. He then should be able to discover himself and to know a greater freedom of self-expression, a point that, until about 15 years ago, was not generally acknowledged. Today, the newer methods of study, well integrated with social training in proper life values and especially with the academic subjects, have the power to make the development of the personality of the individual pupil a reality. For such reasons, educators ought to familiarize themselves thoroughly with the background, school record,
performance in and out of school, personalities and adjustments of mentally-retarded pupils before any attempt is made to draft a curricula for their use. The well-being of the child should be kept in mind, as well as the degree to which the course of studies outlined would contribute to his social and economic welfare.

Variety in learning situations should be stressed and be made equally applicable to courses planned for the use of students after they have left school. This would aid the pupil in job-hunting and in job-holding. Follow-up work with the pupil is important since it prevents him from getting into a situation where he would feel that he is a "round peg in a square hole." In various, recent studies these points have been stressed again and again and applied to concrete situations that served to show their value through the correlation of academic work with visual and auditory methods of instruction and with visits to industrial plants.

Measurement tests, group and individual, verbal and non-verbal, it is found, are being used more generally, it has been suggested in the different studies, however, that greater emphasis needs to be placed on the competent use of the various, so-called authentic tests if Special Class work, and follow-up studies, are to be correlated or made effective. Also, if the individual pupil's capacity for study and his potentialities, are to be evaluated properly and adequately
provided for in the curriculum, some differentiation must be made between the intellectual status of the feebleminded and of the mentally-retarded groups.

Record-keeping, both in cumulative and permanent form, compiled from data secured through the different tests and other sources related to Special Class instruction, is looked upon as important as is follow-up work. Today, the data compiled is being made available alike to guidance counselors, supervisors, parents, and even, to a limited extent, to the pupils themselves. The parents have reports made to them verbally in person or by telephone, and the children learn through personal interviews. Referral forms also have been advocated for use of psychiatrists, psychologists, and others connected with the school work.

The findings of one study in particular promoted the idea that a decided raise in the I.Q. level might be achieved through the provision of some specific type of learning situations. Also the need of having more systematic forms of record-keeping, and the establishment of vocational guidance bureaus, would greatly facilitate follow-up work as an intrinsic part of the educational program designed for Special Class pupils.
CHAPTER III

PROCEDURES

In a search to find some specific means of scoring the classes of mentally-retarded pupils in the schools, it was discovered that among all the various rating scales devised for use in the schools there was none designed especially for Special Class children, although several methods had been worked out by which to evaluate the classes at both the elementary and the secondary levels.

Therefore a scale had to be devised of composite character, especially to serve Special Class needs. In its intrinsic parts it was built up from a review of items found in the different existing rating scales used in educational work. The items adapted from these scales were chosen for their practicality in given situations, and for their scope in relation to handicapped Special Class pupils. Through the use of such a scale it was found possible to measure the over-all procedures adapted to the needs of the Special Class pupils with some degree of assurance.

This composite rating scale indicates the way in which the work that was done in the different classes visited, was measured.
### Rating Scale for Use in Special Classes for Mentally-Retarded Pupils

<table>
<thead>
<tr>
<th>Town</th>
<th>School</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Boys</td>
<td>No. of Girls</td>
<td>Level</td>
</tr>
<tr>
<td>Range: C. A.</td>
<td>M.A.</td>
<td>I. Q.</td>
</tr>
</tbody>
</table>

### I. Planning

#### A. Scheduling Time:
1. How flexible? 1 2 3 4 5
2. Amount of pupil participation 1 2 3 4 5

#### B. Objectives or Goals in Teaching:
1. Motivation of pupil interest? 1 2 3 4 5
2. Pupil participation in determining goals? 1 2 3 4 5

#### C. Use of Pupil Time:
1. Work organized to avoid waste of time? 1 2 3 4 5
2. Adjustment to rate for work? 1 2 3 4 5
3. Individualization of assignments so time is used to advantage? 1 2 3 4 5
4. Practical application of time? 1 2 3 4 5

### II. Equipment and Supplies

#### A. Adjusted Texts? 1 2 3 4 5

#### B. Exhibits and Displays:
1. Natural? 1 2 3 4 5
2. Technological? 1 2 3 4 5

#### C. Auditory and Visual Aids? 1 2 3 4 5
## RATING SCALE (continued)

<table>
<thead>
<tr>
<th>Town</th>
<th>School</th>
<th>Rating</th>
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</thead>
<tbody>
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<td>No. of Boys</td>
<td>No. of Girls</td>
<td>Level</td>
</tr>
<tr>
<td>Range: G.A.</td>
<td>M.A.</td>
<td>I.Q.</td>
</tr>
</tbody>
</table>

### D. Classroom Library?
1 2 3 4 5

### E. Arts and Crafts?
1 2 3 4 5

## III. USE OF EQUIPMENT

### A. Use of Other Rooms besides Special Class Home Room:

1. Science laboratory?
   1 2 3 4 5

2. Cooking laboratory?
   1 2 3 4 5

3. Physical Education facilities?
   1 2 3 4 5

4. Industrial Arts facilities?
   1 2 3 4 5

5. Music?
   1 2 3 4 5

6. Art?
   1 2 3 4 5

7. Library?
   1 2 3 4 5

8. Assembly Room?
   1 2 3 4 5

### B. Use of Exhibits and Aids?
1 2 3 4 5

### C. Use of Trips and Excursions?
1 2 3 4 5

### D. Use of Museums, Reference Rooms?
1 2 3 4 5

### E. Use of Outside Resource People?
1 2 3 4 5

### F. Practical Application of Health and Safety Program.
1 2 3 4 5

## IV. EXPERIENCING

### A. Pupil Activity:

1. Use of self-administering activities?
   1 2 3 4 5
### RATING SCALE
(continued)

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<td>Level</td>
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<tr>
<td>Range: C.A.</td>
<td>M.A.</td>
<td>I. Q.</td>
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#### B. Use of Concrete Experiences?

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#### C. Use of Manipulative Experiences?

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#### D. Development of Skills:

1. Nature and use of drill?

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<tr>
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</table>

2. Adjustment of individual needs in subject matter fields?

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<thead>
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</thead>
<tbody>
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<td>1 2 3 4 5</td>
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</tbody>
</table>

#### E. Program for Developing Special Abilities:

1. Music, Band or Orchestra?

<table>
<thead>
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2. Art, Work with Outside Classroom?

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<thead>
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<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

#### F. Use of Content Materials:

1. Practical Application in:-

   a. Arithmetic?

      | Rating |
      | 1 2 3 4 5 |

   b. Reading?

      | Rating |
      | 1 2 3 4 5 |

   c. Written Recall?

      | Rating |
      | 1 2 3 4 5 |

   d. Social Studies?

      | Rating |
      | 1 2 3 4 5 |

   e. Oral Expression?

      | Rating |
      | 1 2 3 4 5 |

#### V. ATMOSPHERE

A. Physical Set-up in Classroom?

<table>
<thead>
<tr>
<th>Rating</th>
</tr>
</thead>
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<tr>
<td>1 2 3 4 5</td>
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B. Work Habits?

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<th>Rating</th>
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<td>1 2 3 4 5</td>
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C. Discipline?

<table>
<thead>
<tr>
<th>Rating</th>
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<td>1 2 3 4 5</td>
</tr>
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### RATING SCALE
(concluded)

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<table>
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<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
two items. These were: item B, Use of Exhibits and Aids, and item F, Practical Application of a Health and Safety Program. It was decided that a week or more would have to be spent in a single class in order to be able to justify any observational scoring on the other items since the program might include the provisions listed only once or twice a week, or even once or twice a month.

Scoring on Section VI, Evaluation, revealed that neither formal tests nor cumulative records were kept in the classroom, nor was Vocational Guidance, Section VII, carried on in the class to any great extent, except incidentally. Accordingly, it was decided that a few questions should be put to the teacher, or to the supervisor, concerning these items, and too, that whenever possible, both of these people should be consulted so that the rating would represent a composite of the two sources. Observation of the materials and supplies, wherever used by the Special Class, also was made. Further time was spent in observing facilities and supplies used by the Special Class.

During these preliminary trials, it was discovered that the majority of the items could be checked in a comparatively short period of time. Therefore, a time limit of 30 minutes was decided upon as being the time to be spent in observing the procedures in the classroom. This seemed to insure an equal fairness of opportunity to each class. Observation of
other facilities and supplies depended upon the number and kind available for that class.

The next step involved coming to a decision with regard to the classes to be used during the investigation, and it was decided that no class visited should be used since the investigator had studied many classes in the area. It was further decided that towns widely scattered, but within a radius of 50 miles of Boston, would be the most practical for use in a study of this type. Therefore, classes were selected from eight different towns and cities ranging in population from approximately 35,000 to 200,000. These communities might be looked upon as being completely representative of small, medium and large centres of learning.

Visits to the 26 classes in these eight areas then were made, and the classes were scored. No attempt was made, however, to visit all of the classes in each town, or to pick out teachers whose work was supposedly good, or the reverse. If members of the Supervisory Staff were consulted they were informed that such was the procedure and, in every instance, they apparently agreed that it was a wise practice.

Two attempts were made to establish reliability in the initial use of the scale. The first one was with a supervisor of Special Classes, at which time the investigator and the supervisor together made a visit to the classroom, and each rated the class. The second attempt at determining reliability was made with a Special Class teacher herself.
The investigator, during the time that the class was visited, asked the teacher questions designed to elicit the information desired under Sections III, VI and VII, after which, both the investigator and the teacher scored the class. Once again, it was decided, there seemed to be enough unanimity of opinion between the teacher actually doing the teaching and the investigator to permit the scale to stand. This particular teacher considered that the use of the 30-minute time limit represented an important feature of the investigation.
CHAPTER IV

ANALYSIS OF THE DATA FROM 26 SPECIAL CLASSES

The data obtained from the investigation described in Chapter III, has been divided into three parts:

1. Analysis of the Data Concerning the Composition of the 26 Special Classes.

2. Analysis of the Results derived from the ratings of each Item in each Section of the Scale, to reveal the position of the classes on the fifty-two items included in the total Scale.

3. Comparisons of the Average Ratings of each Section; Comparisons of the Average Ratings on the Total Scale; and Comparisons of the Best and Poorest Classes, as well as of the Average classes on the Section Ratings.

PART I

ANALYSIS OF THE DATA CONCERNING THE COMPOSITION OF THE 26 SPECIAL CLASSES

Table I of this chapter shows the way in which the towns were coded, and the number of classes that were located in the elementary schools, the junior high schools, high schools and centers for mentally-retarded pupils.
### TABLE I

COODED TOWNS AND NUMBER OF CLASSES LOCATED IN ELEMENTARY SCHOOLS, JUNIOR HIGH SCHOOLS, HIGH SCHOOLS AND CENTERS FOR MENTALLY-RETARDED PUPILS

<table>
<thead>
<tr>
<th>Coded Towns</th>
<th>Classes in Elementary</th>
<th>Classes in Jr. High</th>
<th>Classes in Sr. High</th>
<th>Classes in Each School</th>
<th>Total in Town</th>
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<tbody>
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<td>A</td>
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<td>1</td>
<td>-</td>
<td>-</td>
<td>4</td>
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<td>4</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>G</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Totals:** 8 11 8 1 6 26

This table is sufficiently clear to be self-explanatory.
The total number of boys in the 26 Special Classes was 274, with an average of 10.54 boys per class. Two classes did not have any boys. The number of boys per class ranged from 0 to 17.

<table>
<thead>
<tr>
<th>Class No.</th>
<th>No. of Boys</th>
<th>No. of Girls</th>
<th>Total</th>
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<td>1</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
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<td>11</td>
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<td>16</td>
<td>16</td>
</tr>
<tr>
<td>26</td>
<td>12</td>
<td>8</td>
<td>20</td>
</tr>
</tbody>
</table>

Total 26  274  92  366

Average No. per class 10.54  3.54  14.07

The total number of boys in the 26 Special Classes was 274, with an average of 10.54 boys per class. Two classes did not have any boys. The number of boys per class ranged from 0 to 17.
The total number of girls in the 26 Special Classes was 92, with an average of 3.54 girls per class. Nine of the classes had no girls. The number of girls per class ranged from 0 to 16.

In the 26 Special Classes there were 366 pupils, with an average of 14.07 pupils per class. The number of pupils per class ranged from 8 to 20.

### TABLE III

**DISTRIBUTION OF 26 SPECIAL CLASSES ACCORDING TO THE HIGHEST AND LOWEST RANGES OF PUPILS’ INTELLIGENCE QUOTIENTS**

<table>
<thead>
<tr>
<th>I.Q. Range</th>
<th>Highest I.Q.</th>
<th>Freq.</th>
<th>Per cent</th>
<th>Lowest I.Q.</th>
<th>Freq.</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-105</td>
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<td>3.85</td>
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<td>96-100</td>
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<td>91-95</td>
<td>2</td>
<td>7.69</td>
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<tr>
<td>86-90</td>
<td>6</td>
<td>30.77</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>81-85</td>
<td>7</td>
<td>26.92</td>
<td></td>
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<td>76-80</td>
<td>4</td>
<td>15.38</td>
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<td>71-75</td>
<td>3</td>
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<td>66-70</td>
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<td></td>
<td></td>
<td>5</td>
<td>19.23</td>
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<tr>
<td>61-65</td>
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<td></td>
<td></td>
<td>8</td>
<td>30.77</td>
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<tr>
<td>56-60</td>
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<td></td>
<td>2</td>
<td>7.69</td>
<td></td>
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<tr>
<td>51-55</td>
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<td></td>
<td>8</td>
<td>30.77</td>
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<td>46-50</td>
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<td>3.85</td>
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<td></td>
<td>2</td>
<td>7.69</td>
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<td><strong>100</strong></td>
<td></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The intelligence quotients of the pupils in the 26 Special Classes ranged from 45 to 104.

The highest I.Q.’s. in 26 or 100 per cent of the classes, ranged from 71 to 104. Of these, twenty-two, or 84.61 per
cent of the classes, contained pupils whose I.Q.'s. were between 71 and 90. The other four, or 15.38 per cent, contained pupils whose I.Q.'s. were between 91 and 104.

The lowest I.Q.'s. in twenty-six, or 100 per cent of the classes, ranged from 45 to 70. Of these, twenty-three, or 88.46 per cent, contained pupils whose I.Q.'s. were between 51 and 70. The other three, or 11.54 per cent of the classes, contained pupils whose I.Q.'s. were from 45 to 50.

**TABLE IV**

**DISTRIBUTION OF 26 SPECIAL CLASSES ACCORDING TO THE HIGHEST AND LOWEST RANGES IN MENTAL AGES**

<table>
<thead>
<tr>
<th>M.A. Range</th>
<th>Highest M.A.</th>
<th>Lowest M.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq. Per cent</td>
<td>Freq. Per cent</td>
</tr>
<tr>
<td>13-6 - 14-5</td>
<td>2</td>
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</tr>
<tr>
<td>12-6 - 13-5</td>
<td>3</td>
<td>11.54</td>
</tr>
<tr>
<td>11-6 - 12-5</td>
<td>4</td>
<td>15.38</td>
</tr>
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<td>10-6 - 11-5</td>
<td>9</td>
<td>34.62</td>
</tr>
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<td>9-6 - 10-5</td>
<td>2</td>
<td>7.69</td>
</tr>
<tr>
<td>8-6 - 9-5</td>
<td>6</td>
<td>23.08</td>
</tr>
<tr>
<td>7-6 - 8-5</td>
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<td>19.23</td>
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<td>6-6 - 7-5</td>
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<td>7</td>
<td>26.92</td>
</tr>
<tr>
<td>4-6 - 5-5</td>
<td>3</td>
<td>11.54</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The mental ages of the pupils in the 26 Special Classes ranged from 4-5 through 14-1.

The highest mental ages in 26, or 100 per cent of the classes, ranged from 8-6 to 14-1. Of these, seventeen or
65.35 per cent, contained pupils whose mental ages were between 8-6 and 11-5. The other nine, or 34.62 per cent of the classes, contained pupils whose mental ages were between 11-6 and 14-1.

The lowest mental ages in 26, or 100 per cent of the classes, ranged from 4-5 to 11-5. Of these, five, or 19.23 per cent, contained pupils whose mental ages were between 8-6 and 11-5. The other twenty-one, or 80.76 per cent of the classes, contained pupils whose mental ages were 4-5 to 8-5.

The highest mental ages in seventeen, or 65.35 per cent of the classes, was the same as the lowest mental ages in five, or 19.23 per cent of the classes.

### TABLE V

**DISTRIBUTION OF 26 SPECIAL CLASSES ACCORDING TO RANGE OF OLDEST AND YOUNGEST PUPILS IN CHRONOLOGICAL AGE**

<table>
<thead>
<tr>
<th>C.A. Range</th>
<th>Oldest Pupils</th>
<th>Youngest Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>Per cent</td>
</tr>
<tr>
<td>17-6 - 18-5</td>
<td>2</td>
<td>7.69</td>
</tr>
<tr>
<td>16-6 - 17-5</td>
<td>4</td>
<td>15.38</td>
</tr>
<tr>
<td>15-6 - 16-5</td>
<td>8</td>
<td>30.77</td>
</tr>
<tr>
<td>14-6 - 15-5</td>
<td>8</td>
<td>30.77</td>
</tr>
<tr>
<td>13-6 - 14-5</td>
<td>3</td>
<td>11.54</td>
</tr>
<tr>
<td>12-6 - 13-5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11-6 - 12-5</td>
<td>1</td>
<td>3.85</td>
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<tr>
<td>10-6 - 11-5</td>
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<td>-</td>
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<tr>
<td>9-6 - 10-5</td>
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<td>-</td>
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<tr>
<td>8-6 - 9-5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7-6 - 8-5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6-6 - 7-5</td>
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<td>-</td>
</tr>
<tr>
<td>Totals</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

The chronological ages of the pupils in the 26 Special
Classes ranged from 6-10 to 18-2.

The highest chronological ages, or oldest pupils in the 26 classes, representing 100 per cent of the classes, ranged from 12-2 through 18-2. Of these, twenty-two, or 84.61 per cent of the classes, contained pupils whose chronological ages were between 14-6 and 18-2. The other four, or 15.38 per cent of the classes, contained pupils whose chronological ages were between 11-6 and 14-5. Of the twenty-two classes, six, or 23.07 per cent, contained pupils whose chronological ages were between 16-6 and 18-5.

The lowest chronological ages, or the youngest pupils, in 26 or 100 per cent of the classes, ranged from 6-10 through 14-5. Of these, twelve, or 46.15 per cent of the classes contained pupils whose chronological ages were between 11-6 and 15-5. The other fourteen, or 53.85 per cent of the classes, contained pupils whose chronological ages were between 6-10 and 11-5.

The oldest chronological ages in twelve, or 46.15 per cent of the classes, were the same as the youngest chronological ages in twelve, or 46.15 per cent, of the classes.
CHAPTER IV: PART II

ITEM RATINGS

The following tables serve to show the item ratings obtained from comparisons drawn between the 26 Special Classes used in this study. An interrelation of the data classed under headings corresponding to the items listed in Part II, follows each table. It has been based upon several different factors which, however, have not been referred to in each instance. In the rating process, consideration had to be given to the varying maturation levels of the pupils in each room, the quantitative and the qualitative evidence. Although these were based on actual practices or materials, nevertheless, they might be considered as subjective in nature. The most important aspect of the interpretation involved such a unification of the evidence as to establish the status accorded to the classes. Furthermore, it should be noted that observations were not such as would afford sufficient evidence to rate each class on every item with an absolute certainty.

A. PLANNING

It will be seen by Table VI that the 26 Special Classes have been rated in percentages according to the different items under Planning.
TABLE VI

PERCENTAGES OF 26 SPECIAL CLASSES RATED ACCORDING TO EACH ITEM OF THE SECTION ON PLANNING

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>11.54</td>
<td>26.92</td>
<td>30.77</td>
<td>26.92</td>
<td>3.85</td>
</tr>
<tr>
<td>Pupil Participation in Planning</td>
<td>46.15</td>
<td>26.92</td>
<td>15.38</td>
<td>7.69</td>
<td>3.85</td>
</tr>
<tr>
<td>Motivation</td>
<td>19.23</td>
<td>23.08</td>
<td>26.92</td>
<td>19.23</td>
<td>11.54</td>
</tr>
<tr>
<td>Pupil Participation in Goals</td>
<td>65.35</td>
<td>11.54</td>
<td>19.23</td>
<td>3.85</td>
<td>.00</td>
</tr>
<tr>
<td>Work Planned to Avoid Waste</td>
<td>11.54</td>
<td>26.92</td>
<td>33.46</td>
<td>19.23</td>
<td>3.85</td>
</tr>
<tr>
<td>Work Adjusted for Rate</td>
<td>7.69</td>
<td>30.77</td>
<td>23.08</td>
<td>26.92</td>
<td>11.54</td>
</tr>
<tr>
<td>Individual Assign. so time used to Advantage</td>
<td>15.38</td>
<td>30.77</td>
<td>23.08</td>
<td>15.38</td>
<td>15.38</td>
</tr>
<tr>
<td>Practical Application of Time</td>
<td>19.23</td>
<td>34.62</td>
<td>23.08</td>
<td>15.38</td>
<td>7.69</td>
</tr>
</tbody>
</table>

I. FLEXIBILITY

Three, or 11.54 per cent of the classes, were rated as in the Inferior group, due to the face that the schedule seemed completely rigid as to time. Pages from the text-book were assigned by the teacher, and the assignments
seemed not to extend much beyond this.

Seven, or 26.92 per cent of the classes, were rated as Below Average. These classes showed some flexibility within the hour and some indication of work beyond the textbook. In one instance, some detail was supplied by the pupils. As an example of such rigidity one incident is cited: At the opening of a class, the teacher, having talked to the pupils for several minutes, looked up at the clock and as if by signal said: "Good morning, boys and girls" to which the pupils replied, "Good morning, Miss Blank." The weighing of all such evidence has served as a basis for the ratings.

Eight, or 30.77 per cent of the classes were rated as Average. These class programs were flexible within the hour and the work extended beyond the text. Some indications of blocked planning were present and the programs seemed to change with the needs of the pupils.

Seven, or 26.92 per cent of the classes, were rated as Above Average. The over-all plan was available for all to see and work toward, and tasks varied with the immediate need of the pupils. In one instance, there was little evidence of units of work but many opportunities were provided to utilize experiences of the pupils. Modification not only was expected but could be observed, in the work of some of the pupils.
One, or 3.85 per cent of the classes, was rated as Superior. This class followed a schedule for shop work but otherwise the work was broadly based, setting forth objectives. Each pupil, through specific activities, contributed to the total program. The decision of one boy to finish a bit of work and then join in a group activity evidenced modification. Other evidence was revealed in the kind of presentation made by the teacher which was suggestive rather than directive in nature.

II. PUPIL PARTICIPATION IN PLANNING

Twelve, or 46.15 per cent of the classes, fell into the Inferior group. Most of these classes afforded no evidence of attempts to encourage pupil participation. This might be interpreted as being due to lack of chance to observe. However, in two instances, pupils made suggestions which were put aside with no explanation. In classes where the active pupil participation was observed, the contrast was so great as to warrant low rating. The teachers of these classes made the assignments and the pupils waited to be told what to do.

Seven, or 26.92 per cent of the classes, fell into the Below Average group. Decisions concerning minor matters were made, or the teacher consulted the pupils. Although sometimes the results seemed predetermined, the pupils did have a part in them - the predetermination, if indeed
it were such, being at the level at which the group could function.

Four, or 15.38 per cent of the classes, were rated as Average. The teacher's plans varied with the suggestions of the pupils. Opportunities for the pupils to express themselves concerning plans for the day or the future were observed.

Two, or 7.69 per cent of the classes, were rated as Above Average. The level of the child had necessarily to be considered in all ratings on Planning; thus these two classes provided entirely different bases. The one, a class where the mental ages ranged in the upper elementary grades, who had previously finished a unit of work and were exploring material for ideas, took the initiative and went on with their work while the teacher was busy. The second class had pupils whose mental ages ranged very low but, nevertheless, made all kinds of decisions. A chart showed plans for their project. They determined what they should do after they had finished a formal lesson. They helped arrange the group for activity and they decided when they should finish. Both classes showed excellent ability in making plans, the former, through previous training and the latter under guidance.

One, or 3.85 per cent of the classes, was rated as Superior. Plans were under way for a new project and
materials had been brought into class. The pupils initiated the discussion, which led to an arrangement of the materials in the few minutes they had available.

III. MOTIVATION OF PUPIL INTEREST

Five, or 19.23 per cent of the classes, were rated in the Inferior group. Unconcern on the part of most pupils served as the basis for this rating. There seemed to be little effort made to arouse the interest of the pupils.

Six, or 23.08 per cent, were rated as Below Average. The attempts to utilize pupil experiences or needs seemed to fall short of the aim. Success was provided in some instances but not sufficiently to afford a high degree of motivation.

Seven, or 26.92 per cent of the classes, were rated as Average. Emphasis was placed on the more immediate needs of the pupils. Such motives as desire for approval, social recognition when participation in the group, all contributed to the evidence of good motivation.

Five, or 19.23 per cent of the classes, were rated as Above Average. Factors leading to such ratings included not only happy children but discussion of purposes, recognition of needs and interests, stimulation of curiosity by means of questioning and use of pictorial materials and objects to stir interest.

Three, or 11.54 per cent of the classes, were rated as
Superior in motivation of the pupils. Plans for a big event, a special trip, and the use of progress charts, had been utilized to the extent that all pupils were actively occupied so that no coercion was needed. Such basic needs as new experiences, social approval, self-esteem and recognition stem from such motivation and pupil enthusiasm further indicates its high quality.

IV. PUPIL PARTICIPATION IN DETERMINING GOALS

Observable goals were largely immediate and transitory. Quantitative measure was the major basis for the ratings, nevertheless the evidence justifies some interpretation.

Seventeen, or 65.35 per cent of the classes, were rated as Inferior on Pupil Participation in Determining Goals. In some instances it may have been a failure to observe that which caused low rating but marked evidence existed in classes rated higher. Assignments listed under Inferior were teacher-directed, and little or no attempt was made to help the pupils see the goals. In some instance, the observer could see but the pupils could not. Slow approaches or unconcern for tasks served as the basis for rating.

Three, or 11.54 per cent of the classes, were rated as Below Average. Here, however, attempts were made to help the pupils to see the goals toward which they were working. It could scarcely be said that all pupils working
on the same programs were participating to any extent in the determination of the goals.

Five, or 19.23 per cent of the classes, were rated as Average. Here the pupils were definitely aided. They were helped to see the purposes for the task. At different points they initiated them. Mastery of the letter "j" was one instance of very young pupils making such decision; while determining the cause of a broken machine and learning to repair it so that they would not be handicapped again by a breakdown, was an example of a goal for a more mature class.

One, or 3.85 per cent of the classes, was rated as Above Average. The pupils in this class had set up specific objectives and the teacher had copied them on a chart for reading. The pupils could not only relate the more remote goals in this planning but also they reported their own contributions. This class was composed of pupils whose mental ages placed them in the primary grades.

No class was rated as Superior since no far-reaching goals were evident nor was there sufficient quantity to suggest superiority.
V. WORK PLANNED TO AVOID WASTE OF TIME

Three, or 11.54 per cent of the classes, were rated as Inferior. These programs showed no organization to avoid waste of time even when materials were ready but instead seemed to be hit-or-miss schemes.

Seven, or 26.92 per cent of the classes, were rated as Below Average. Here the work was organized but much time was wasted through idling, or because of failure to provide for all pupils. In one instance, pupils might have been allowed to contribute to avoid waste. Some pupils were left out of the group-work, or else all were set to work on the same materials. However, there was seen an alertness to the need of keeping pupils occupied.

Ten, or 38.46 per cent, of the classes, were rated as Average. Here the materials were so located that pupils proceeded with the work and moved from one activity to another without delay. Naturally, some pupils were better able to go on with the work than others but, on the whole, this group of classes tended toward efficiency in utilizing time to good purpose.

Five, or 19.23 per cent of the classes, were rated as Above Average. The work was well organized and well arranged, and the time was spent by the pupils in purposeful activity. The teachers seemed to be fully aware of individuals who needed help in getting started but the
majority of pupils worked steadily, following the group plan as well as their own individual plans.

One, or 3.85 per cent of the classes, was rated as Superior. There was group and individual progress from one activity to another and the pupils seemed alert to new possibilities of work and to know their own capacities. The purposing may have been teacher-instigated but it was done in such a way as to aid the pupils in a practical use of time. This was probably justified by reason of the mental ages of the children. This class differed from those rated as Above Average only in degree, and in the fact that all pupils seemed to be using the time well.

VI. WORK ADJUSTED FOR RATE

Only two, or 7.69 per cent of the classes, were rated as Inferior. There seemed to be no attempt to provide for this in the lesson plans, yet rate is one of the easiest adjustments to make.

Seven, or 30.77 per cent of the classes, were rated as Below Average. Some attempts were made to provide different-length assignments or to provide further work or free-time activity if the work was finished before a new activity or a formal program was begun. In several instances, more than one type program was carried on simultaneously. Rate adjustment was provided in one class but not in the others. One class failed to provide for
rate in academic work but in the other easier areas provisions for rate were evident.

Six, or 23.08 per cent of the classes, were rated as Average. In these six classes, work varied in length for written and oral work during study time, and for varied activities. Security was afforded to the pupils through hearing such remarks as "Some work faster than the others but you work at your own speed." The majority, (but not all) of the pupils were provided for.

Seven, or 26.92 per cent of the classes, were rated as Above Average. There was no haste and no strain exhibited in trying to keep up with other pupils. Each pupil's own rate of speed was considered. Where practical, provisions were made to work with others, or to work alone. These findings accrued from content materials as well as from oral and activity work.

Three, or 11.54 per cent of the classes, were rated as Superior. This was due to a quantitative rating of the criteria mentioned in the preceding ratings, quantitative as far as the amount of work provided was concerned and because of the fact that all pupils were taken care of equally. Concentration for more detailed work, and freedom from pressures, were evident in all of the classes rated as Superior.
VII. INDIVIDUALIZATION OF ASSIGNMENTS SO TIME IS USED TO ADVANTAGE

In four, or 15.38 per cent of the classes, there was no evidence of individualization of assignments for advantageous use of time.

In eight, or 30.77 per cent of the classes, assignments were individualized so that time was advantageously used and basic skill needs seemed to be provided for. Some written work on the board, previously done, suggested still further individualization. Interests had been recognized, in some instances. In one class ample individualized assignments had been provided for, but were chosen by the pupils at random, with no guidance by the teacher.

Six, or 23.08 per cent of the classes, were rated as Average. Progressive individualized assignments were provided. Basic skills, needs, and interests of the pupils were considered and pupils could consult the teacher, or the teacher moved from pupil to pupil to offer encouragement and assistance. Failure to provide sufficient motivation prior to presenting work may have influenced the rating. Needs, such as handling things, as well as mental needs, were paramount in the individualized work observed.

Four, or 15.38 per cent of the classes, were rated as Above Average. Individualization was shown to such a
marked extent as to be considered highly advantageous. Skills, interests and maturation levels were noted. In one group-discussion-type program, the pupils were able to discover their own needs for certain words and phrases, based on their interests and suited to their chronological age. Charts aided in the presentation, and specially-prepared sheets complemented other methods.

Four, or 15.38 per cent of the classes, were rated as Superior. Assignments provided that almost every single pupil, rather than small groups of pupils, should have the kind of work in which he was interested. The desire to learn had been so instilled that the pupils in these classes were eager to show or tell of their work and consequently used their time well. They were absorbed in activity and engaged in it without external direction.

VIII. PRACTICAL APPLICATION OF TIME

Time may be spent practically for each individual only in relation to his growth pattern, - physical, intellectual, emotional and social. Determining practicality on such a basis seemed highly improbable, therefore, only broad general interpretations were made under this item. Clues were taken from the teacher's knowledge of the needs of the pupils, plus the kind of work observed. Local environmental situations were also considered.

Five, or 19.23 per cent of the classes, showed little
evidence of being practical. Some of the needs were cared for but others were totally neglected. In two instances, the assignments were individualized but far removed from reality and not geared to youthful concepts.

Nine, or 34.62 per cent of the classes, were rated as Below Average but tended toward practicality in the type work. They frequently took the growth of the child into consideration, although there was a failure to localize the material supplied.

Six, or 23.08 per cent of the classes, were rated as Average. The tendency to use present environmental problems existed to the extent that they were observable. Pictorial matter, correlating to the work, at the reading or discussion periods, further substantiated this evidence. In two of these classes the jobs performed in public buildings, and also the locations of these buildings as to streets, were utilized in such a way as to give the pupils a practical point of reference to their own community. In another class the study of local use of rubber, imported from certain of the countries comprising the United Nations, furnished evidence of practicality. The pupils, however, did not all participate in the latter class.

Four, or 15.38 per cent of the classes, were rated as Above Average. Ample provisions were made for social and physical status. Cognizance was taken of the
significance of the products made, quality of products in one class, and usefulness in another, determined the rating. Another class utilized nearby stores, their merchandise and its costs. A fourth class prepared for a special program and engaged in activities which led them to this goal, affording social practicality as well as manual outlets.

Two, or 7.69 per cent of the classes, were rated as Superior. As far as could be observed all pupils worked at the levels and interests of the individual. Progress in the application of time spent in learning about institutions, and people employed therein, as well as job opportunities for themselves, indicated outstanding practical evidence for the class where the mental ages were low and the chronological ages ranged from 14-16 years. The second class was composed of pupils whose mental age range lay within the primary-grade range. Here the reading was about children of their own age whose experiences were modern, thus suggesting a broadening interest to the group. Discussion to further stimulate them was also used.
B. EQUIPMENT AND SUPPLIES

TABLE VII

This table serves to indicate the percentages of the 26 Special Classes that were rated during the course of this Study, according to each item listed under the Section, Equipment and Supplies.

TABLE VII

PERCENTAGES OF 26 SPECIAL CLASSES RATED ACCORDING TO EACH ITEM OF THE SECTION ON EQUIPMENT AND SUPPLIES

<table>
<thead>
<tr>
<th>Rating Items</th>
<th>1</th>
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<th>4</th>
<th>5</th>
</tr>
</thead>
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<tr>
<td>Adjusted Texts</td>
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<td>42.31</td>
<td>26.92</td>
<td>15.38</td>
<td>3.85</td>
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<tr>
<td>Natural Exhibits</td>
<td>92.15</td>
<td>3.85</td>
<td>--</td>
<td>--</td>
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<td>Technological</td>
<td>88.46</td>
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<td>3.85</td>
<td>3.85</td>
<td>--</td>
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<td>Exhibits</td>
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<td>33.46</td>
<td>42.31</td>
<td>11.54</td>
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<td>15.38</td>
<td>7.69</td>
<td>--</td>
</tr>
<tr>
<td>Arts and Crafts</td>
<td>23.07</td>
<td>34.62</td>
<td>19.23</td>
<td>11.54</td>
<td>11.54</td>
</tr>
</tbody>
</table>
I. ADJUSTED TEXTS

Three, or 11.54 per cent of the classes, were rated as Inferior on textbooks. One text was used by all pupils.

Eleven, or 42.31 per cent of the classes, were rated as Below Average. The texts were adjusted to some degree, but in several classes not adequate by 50. The majority of teachers had recognized this and had supplemented to some extent. In one class, books that were dated 1926, were being used while newer materials remained untouched in a cabinet. In another class, the teacher was doing extra work in order to supply written material for the pupils. In still another class, about twelve of the newer Social Studies books had been covered with brown paper and were left on the window sill, although they were said to be in use. In one class, there was pre-primer and primer material, together with a few extra books. Here the mental ages in the class ranged up to about 9 years and the chronological ages to 15. One class had recently been supplied with a new reading series.

Seven, or 26.92 per cent of the classes, were rated as Average. In these classes were several sets of books covering the content subjects, with some additional books. There seemed to have been little attempt to provide books of high interest and low vocabulary.

Four, or 15.38 per cent of the classes, were rated as
Above Average. The text-books seemed adequate for the classes, in that several levels were provided for and supplementary material of a high interest was available.

One, or 3.85 per cent of the classes, was rated as Superior. This class had adequate texts for all levels in the room, and had plenty of supplementary materials. Books from several systems were available and most of them were newer editions. Interest and the vocabulary load had been taken into consideration.

II. NATURAL EXHIBITS

Twenty-four, or 92.15 per cent of the classes, were rated as Inferior. No natural exhibits were evident.

One, or 3.85 per cent, of the classes, was rated as Below Average. This class, for example, used pussy-willows and a live fish for study purposes.

No class was rated Average or Above Average.

One, or 3.85 per cent of the classes, was rated as Superior. The exhibit consisted of a sweet potato, a sweet potato plant, a cotton boll, some cotton that the pupils were attempting to grow, and wool from a sheep with a picture of the animal, and a cocoon (but no silk worm, only a picture of one).
III. TECHNOLOGICAL EXHIBITS

Twenty-three, or 88.46 per cent of the classes, were rated as Inferior, having no technological exhibits at all.

One, or 3.85 per cent of the classes, was rated as Below Average. This class had a transportation exhibit, and although it was of a miniature nature it contained several different kinds of vehicles. It had been contributed by the pupils.

One, or 3.85 per cent of the classes, was rated as Average. Farm equipment was on display consisting of shovels, hoes, and rakes, supplemented by pictures of material not practical for use as classroom display.

One, or 3.85 per cent of the classes, rated as Above Average. The natural exhibit of the class was followed by the manufactured products, with different kinds of cotton, rayon, and silk cloth, on display. The reason for not rating the class as Superior on this exhibit was due to the fact that no articles were exhibited which were made of the cloth shown.

No class was rated as Superior.
IV. AUDITORY AND VISUAL AIDS

One, or 3.85 per cent of the classes, fell into the Inferior group. Here, there were observed a few pictures but they were brown with age and totally unrelated to anything else in the room.

Ten, or 38.46 per cent of the classes fell into the Below Average group. Six of these had movies occasionally, or could get them on request. The teacher had supplied the other three rooms with pictorial material to the extent of deserving recognition.

Eleven, or 42.31 per cent of the classes, fell into the Average group. Six of these eleven, however, rated a high score because of teacher-pupil provisions and had no mechanical equipment. The other five classes were rated Average due to a composite of the kinds of provisions the teachers and pupils made, plus the fact that they had movies occasionally, an organ, sometimes a piano, a radio, or a Victrola.

Three, or 11.54 per cent of the classes, were rated as Above Average. One of these classes had access to a movie machine and a recorder with records, in the room. Records were made of the pupils' voices. The second room had a regular radio hook-up but it was controlled by the office. Movies were often available but not in the room, and the class had an organ for its use. The third room had a
Victrola and a radio, and occasional movies were shown. The radio was a small bedside model, hooked up by an extension cord. This room had an excellent supply of pupil-teacher-supplied pictorial material.

One, or 3.85 per cent of the classes, was rated as Superior. It had a movie machine, an opaque projector, a radio, and a Victrola. This equipment was not in the same room but in a room especially used by the class. Both pupils and teachers had constant access to these aids.

V. CLASSROOM LIBRARY

Thirteen, or 50.00 per cent of the classes, were rated as Inferior. There was little evidence of a library as such - only a few scattered books and some magazines, usually old ones.

Seven, or 26.92 per cent of the classes, were rated as Below Average. Three of these classes had some fiction and picture books scattered loosely on a table used for other purposes. Some also had current magazines but youth magazines were rarely seen. One class had copies of Newsweek. One class had a newly-painted table for a reading center, but few books.

Four, or 15.38 per cent of the classes, were rated as Average. These classes differed only in quantity from those rated 2, except in one instance where an excellent supply of current magazines was available. This class had
a good magazine rack and table, lamps, and comfortable seating arrangements, all of which was conducive to reading, but it lacked the kind of reading material that was found in the Above Average class.

Two, or 7.69 per cent of the classes, were rated as Above Average. Both of these had a physical set-up conducive to reading. Books as well as current periodicals, were available.

No class was rated as Superior since neither quantity nor quality of evidence was present.

VI. ARTS AND CRAFTS

Six, or 23.07 per cent of the classes, were rated as Inferior. All of these classes had an Industrial Arts program and five of them had a regular Art program, as will be shown in the next section. No craft work was done in the classroom.

Nine, or 34.62 per cent of the classes, were rated as Below Average. In rating, this item consideration was given to the number of children who would use the supplies, as well as the kinds of supplies afforded. Only three of the classes provided work benches. The others used desks or tables. Tools were provided to a limited extent. Wood in limited amounts was observed in five of the classes, although some of that had been brought in by the teacher.
In one instance, wire from milk bottles was used to put together a waste basket. Paper, paint, crayons, and paste were the principal supplies although leather was observed in one room, some cloth in another room, and clay in still another room.

Five, or 19.23 per cent of the classes, were rated as Average. These classes not only had all of the supplies listed above, but in greater quantity. Only two of the five had work benches and one had an easel. Weaving supplies were another feature of the rooms in this group.

Three, or 11.54 per cent of the classes, were rated as Above Average. In addition to the usual supplies, one of these classes had a sewing machine and a hand-loom. The second had the best supply of ply-wood seen and also had footstools for which the pupils could weave tops. The third class in this group was utilizing tin boxes, bottles, shells for jewelry, beads and leather. Some of this material was supplied by pupils and teacher, so as to utilize the limited space available.

Three, or 11.54 per cent of the classes, were rated as Superior. These classes had all kinds of small equipment in the way of saws, braces, and tools for working in wood. They also had a plentiful supply of wood to work with and an abundance of paint for finger-painting, posters and metal painting. Plasticine and soap were available in one room.
In another room, papier-mache was being made.

C. USE OF EQUIPMENT

This table serves the purpose of tabulating the percentages of 26 Special Classes rated according to items under Use of Equipment.

<table>
<thead>
<tr>
<th>Rating of Items</th>
<th>1</th>
<th>2</th>
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<th>5</th>
</tr>
</thead>
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<tr>
<td>Science</td>
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<td>19.23</td>
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<td>Music and Ref. Rooms</td>
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<td>Practical Health and Safety</td>
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</tr>
</tbody>
</table>
I. SCIENCE LABORATORY

Twenty-five, or 96.15 per cent of the classes, were rated as Inferior. No laboratory was available for use.

One, or 3.85 per cent of the classes, was rated as Below Average. The laboratory was available to pupils whose capacities and interests tended in that direction.

No class was rated as Average, as Above Average, or as Superior.

II. COOKING LABORATORY

Twenty, or 76.35 per cent of the classes, were rated as Inferior. No cooking facilities were provided.

No classes were rated as Below Average.

The facilities of three, or 11.54 per cent of the classes, were such as to deserve a rating of Average. They were used twice a week for regular classes though no chance to work with normal pupils was provided.

Two, or 7.69 per cent of the classes, were rated as Above Average. These classes had cooking and dining facilities. Pupils were taught apart from the normal pupils, by another teacher.

One, or 3.85 per cent of the classes, was rated as Superior. It had cooking and dining facilities supervised by another teacher and the pupils worked with the normal pupils.
III. PHYSICAL EDUCATION FACILITIES

Fifteen, or 57.62 per cent of the classes, were rated as Inferior under this item. No facilities were provided for physical education.

Three, or 11.54 per cent of the classes, were rated as Below Average. Two of these three had an auditorium for use as a gymnasium but little in the way of equipment. The third class had a small room especially set aside for recreation and physical education. All of these classes were conducted by the teacher.

Five, or 19.23 per cent of the classes were rated as Average. All five had excellently equipped gymnasiums, having small as well as large equipment. Four of these classes were taught by a regular gymnasium teacher on a regular schedule. The fifth had daily use of the gymnasium but was directed by the Special Class teacher. None of the five participated in the program with normal pupils.

One, or 3.85 per cent of the classes, was rated Above Average. The class met regularly in a well-equipped gymnasium and had a regular gymnasium teacher. The work was with normal pupils.

Two, or 7.69 per cent of the classes were rated as Superior. The gymnasiums were similar to the others, but the pupils had opportunities to participate in extracurricular activities. Special attention was given to the
health of the individuals and special work provided.

IV. INDUSTRIAL ARTS

Thirteen, or 50 per cent of the classes, were rated as Inferior in Industrial Arts facilities. Seven had no space provided for doing work of that nature. Six had extra space provided where Arts and Crafts equipment and materials were kept. The equipment consisted of the simplest type, saws and hammers, paralleling the crafts program rather than a true industrial program. Therefore, this space could not justifiably be referred to as Industrial Arts facilities.

Three, or 11.54 per cent of the classes, had spacious rooms containing plenty of equipment suitable to the level of the child. Though not truly industrial in nature, these classes tended in that direction.

Six, or 23.07 per cent of the classes, were rated as Average. These classes had rooms equipped for woodwork, metal work, welding, and electrical repair. They were used to good advantage but only by Special Class pupils.

Three, or 11.54 per cent of the classes, were rated as Above Average. The same kind of supplies were available to them in greater quantity, and the rooms were well equipped to care for the needs of the group. Trained teachers were in charge of the work.

One, or 3.85 per cent, was rated as Superior. The facilities included woodwork, home repair, printing,
mechanical drawing, electrical work, and some metal work. Special instruction was provided for the pupils who frequently worked with normal pupils.

V. MUSIC

Fourteen, or 53.85 per cent of the classes, had no music facilities and therefore were rated as Inferior.

Five, or 19.23 per cent of the classes, had some evidence of facilities but since another room was available, their frequency of use was ill-determined, ranging from twice a month to less frequently.

Four, or 15.38 per cent of the classes, were rated as Average. Space was available and was used by the teacher, and supervisor. In three of the rooms there were also records. One class apparently used their space less frequently than others, but the physical set-up was highly desirable and afforded spaciousness, light, and a piano.

Two, or 7.69 per cent of the classes, had music facilities rated as Above Average. Space, time, and teacher, were provided regularly for these classes. Enthusiasm ran high in the groups and though one class worked with normals and the other alone, both music rooms were above the average.

One, or 3.85 per cent of the classes, was rated as Superior. An auditorium as well as a classroom was provided. Regular class and special chorus work was afforded; solo and
small group work was observed; participation in special
programs and work with their contemporaries provided these
pupils with plenty of opportunities.

VI. ART

Nineteen, or 73.08 per cent of the classes, had no
Art facilities, and therefore were rated as Inferior.

Three, or 11.54 per cent of the classes, had pro­
visions made for art twice a week and were rated as Below
Average. The facilities in two of the rooms seemed adequate
supplying tables, drawing boards, and easels, but the third
room, although less well-equipped, evidenced a more
adequate program.

Two, or 7.69 per cent of the classes, were rated as
Average. One class provided for creative art, lettering,
and design, yet was poorly equipped in contrast to the
other which actually provided less creative opportunities
but on a daily schedule.

One, or 3.85 per cent, was rated as Above Average, the
difference being not so much in quality or quantity of
the equipment, as in the way the program was administered.
The pupils could attend the class if interested or if they
wished to work on a special project. Some pupils attended
the class regularly. Cooperative work existed between the
art department and the Special Class although none was
based on unit work.
One, or 3.85 per cent of the classes, was rated as Superior. This may be justified only by the fact that all pupils attended either three or four times a week, while some of them went for special work, besides. Other than that, the pupils worked with normals in this class.

VII. LIBRARY

Sixteen, or 65.42 per cent of the classes, had no library facilities and were rated as Inferior.

Six, or 21.53 per cent of the classes, were rated as Below Average. Some library facilities were available. However, three of the classes were using libraries not operated by the school, although situated in the same building. This set-up had a trained librarian and made an effort to get material for the classes. Two of the classes had a fairly well-stocked library but little usage, and the other class, although not actually having a library, made provision in another room for pupils to get extra reading material.

Two, or 7.69 per cent of the classes, were rated as Average. They had library facilities provided in an attempt to meet the needs of the pupils in the Special Classes, but these were quite dissimilar in type. For example, one had a well-equipped, regular library set-up, a trained librarian, and good materials. The other, less well-stocked, afforded a variety of library materials, and
pupils used it at will despite the fact that there was no regular, full-time librarian. The physical set-up was such as would appeal to children, with low shelves, tables, files, lamps, comfortable chairs, and rugs. All of this made for a homelike atmosphere.

Two, or 7.69 per cent of the classes, had Above Average facilities. Both had the regular school-type library with a trained librarian and adequate research material. However, the reason for not rating these classes as Superior was due to the lack of suitable materials for the pupils. Both librarians and teachers sensed this need and they encouraged the pupils to use what materials were available.

No class in this group was rated as Superior due to lack of adjusted materials.

VIII. ASSEMBLY ROOMS

Nine, or 34.62 per cent of the classes, were rated as Inferior. Five had no Assemblies at all. Three attempted to make an assembly room available by rearrangement of a tiny lunchroom (used by Special Class pupils only) and one class had a small room which the principal converted, infrequently into an Assembly Hall.

Nine, or 34.62 per cent of the classes, had assembly halls available. While the Special Class used these along with the other pupils, they were given no part in the programs.
Four, or 15.38 per cent of the classes, attended regular assembly programs and were rated as Average. Opportunities were provided for participation in every class. They did not take part in the programs as a group but as individuals.

Two, or 7.69 per cent of the classes, were rated as Above Average because of the participatory angle. These classes had taken part in programs during the year and the teachers seemed to be aware of the need to increase and improve such opportunities.

Two, or 7.69 per cent of the classes, were rated as Superior. These two classes had produced programs and had worked with other pupils on assembly programs. When observed, the more mature group was working with a small committee on a program. The younger group enthusiastically reported having helped with a program. The teacher and the principal encouraged them in such activities.

IX. USE OF EXHIBITS AND AIDS

Sixteen, or 61.53 per cent of the classes, were rated as Inferior on the use of Exhibits and Aids. Of these sixteen, only one had no exhibits, or aids, to use. Nine classes had some aids but failed to use them during the time of observation. The other six had rated higher on aids not necessarily pertinent to the work of the moment. Some of the aids were of a mechanical nature.

Three, or 11.54 per cent of the classes, were rated as
Below Average. Very little was said about the material available during the time of observation.

Five, or 19.23 per cent of the classes, were rated as Average. The classes used the available materials constructively. One pupil, of his own volition, was observed to go to the bulletin board to get a picture with which to work. In another class, pupils arranged materials on a board. In still another class, the pupils sorted and posted visual materials. In yet another class, references were made to specific pictures.

One, or 3.85 per cent of the classes, was rated as Above Average. Although this class had no exhibits and only an average amount of visual materials, the majority of the items of a visual nature were used by some pupils within the period of time observed.

One, or 3.85 per cent of the classes, was rated as Superior in the use of Exhibits and Aids. All of the pupils knew about the exhibits that were particularly related to their portion of the work as well as about the other pupils' work. One pupil reported on the cotton experiment, and another remarked on the same report even though he had not worked on it.

X. TRIPS AND EXCURSIONS

Twenty-three, or 88.46 per cent of the classes, had made no trips or excursions within the year.
Three, or 11.54 per cent of the classes, were rated as Below Average on Trips, due to the one trip that each reported.

No class was rated as Average, Above Average, or Superior.

XI. MUSEUMS AND REFERENCE ROOMS

Twenty-four, or 92.15 per cent of the classes, had no Museums or Reference Rooms, and therefore they were rated as Inferior.

Two, or 7.69 per cent of the classes, had some semblance of such facilities and were rated as Below Average. One was a room set-up which provided limited facilities; the other class had a small cabinet in which some collections had been assembled for occasional use.

XII. USE OF OUTSIDE RESOURCE PEOPLE

Twenty-four, or 92.15 per cent of the classes, reported no outside person in the class this year to be used as a special resource. These classes were rated as Inferior.

One class, or 3.85 per cent of the classes, reported the visit of a police officer on a special safety project. This class was rated as Below Average.

One class, or 3.85 per cent, reported the help of a fireman at Hallowe'en; a nurse to present a Tuberculosis program, and a policeman to discuss safety during the
coasting season. This class was rated as Average.

No class was rated as Above Average, or Superior.

XIII. PRACTICAL HEALTH AND SAFETY

Two, or 7.69 per cent of the classes, were rated as Inferior. In one of the classes, although medical examinations were made and the nurse visited the school daily, there yet seemed to be no concern evidenced for the mental health of the child. The physical education program consisted of a once-a-week exercise in the room. There were no health, or safety, posters or charts. The other class was given a twice-a-week physical education program even while a child's concern over his sore throat was ignored, as was another child's request to go to the lavatory.

Thirteen, or 50 per cent of the classes, were rated as Below Average. Mental health was almost ignored, and six of the classes had no gymnasium facilities. Some of the rooms seemed stuffy. Some had relaxation periods, but even that did not form a feature of the class routine in some cases. Some had posters and charts but, in the over-all picture, there seemed to be little to justify practicality. Three of the classes were situated in inferior basement rooms with no gymnasium facilities, but the teachers showed concern for relaxation activities and for the mental health of the children.
Six, or 23.07 per cent of the classes, were rated as Average. Medical services were available and the teachers were aware of the individual's physical condition, and knew something of each child's home environment. One class, that had no gymnasium, had supervised, outside play and rearranged the room for indoor sports of such nature as might be carried on in such a limited area. One class had special lavatory facilities installed just outside the room for these pupils and for those in another room. Another teacher provided for free play in the classroom, at times when it rained, saying: "It's too bad that the children have to be penned up in such bad weather." Mental health was looked upon as important in these classes. Health charts and posters indicated other media used in providing for the total health of the pupils.

Five, or 19.23 per cent of the classes, were rated as Above Average because of the preponderance of the above factors. Two classes lacked good physical education facilities but these lacks were compensated for by the many devices afforded by the teacher on health, safety, nutrition, and an unusual knowledge of the individual pupil's background and emotional make-up. The teachers were alert and seemed to enjoy radiant health. They exhibited a definite concern, but not a morbid concern, for the well-being of the pupils.
D. EXPERIENCING

Table IX is designed to indicate the percentage of 26 Special Classes on each item included in the section under Experiencing.

**TABLE IX**

PERCENTAGES OF 26 SPECIAL CLASSES RATED ACCORDING TO EACH ITEM OF THE SECTION ON EXPERIENCING

<table>
<thead>
<tr>
<th>Rating</th>
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<tr>
<td>Self-Admin. Activities</td>
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<td>23.07</td>
<td>34.62</td>
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<td>Concrete Experiences</td>
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<td>53.85</td>
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<td>38.46</td>
<td>11.54</td>
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<td>Adjustment to Indiv. Needs</td>
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<td>46.15</td>
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<td>Band or Orchestra</td>
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<td>3.85</td>
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<tr>
<td>Outside Art</td>
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<td>15.38</td>
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<td>3.85</td>
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<td>Practical Written Recall</td>
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<td>38.46</td>
<td>19.23</td>
<td>7.69</td>
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<td>26.92</td>
<td>26.92</td>
<td>23.07</td>
<td>--</td>
</tr>
<tr>
<td>Practical Oral Expression</td>
<td>19.23</td>
<td>30.77</td>
<td>19.23</td>
<td>19.23</td>
<td>11.54</td>
</tr>
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</table>
I. SELF-ADMINISTERING ACTIVITIES

Five, or 19.23 of the classes, were rated as Inferior. There was no evidence that any self-administering devices were used either during observation or from materials available. One class reported having its own typed sheets, but there were none to be seen that day.

Six, or 23.07 per cent of the classes, were rated as Below Average. Workbooks and games were the media employed, the emphasis being placed on the workbooks. The games were limited in number.

Nine, or 34.62 per cent of the classes, were rated as Average. Teacher-made devices consisting of games, work cards, check lists, mimeographed or hectographed material plus workbook material, were quantitatively supplied. Some of the material was qualitative also. Some showed that they had been used. Qualitative, as well as quantitative estimates had to be made. The material was available to the pupils on tables, or in cabinets, which they used.

Six, or 23.07 per cent of the classes, were rated as Above Average. This material differed from the latter somewhat, both quantitatively and qualitatively. The feature that rated these classes above the other nine was that the pupils had the devices in their desks and, obviously, had used them freely. One class had more than the usual amount of material on hand but it was so old that it was splitting at the ends.
Had this material been of more modern type the class would have been rated as Superior, but, instead, it had to be scored down on the basis of unattractiveness.

No class was rated as Superior since none supplied scoring devices with the material to the extent which would justify so high a rating.

II. CONCRETE EXPERIENCES

Although broad concrete experiences were limited because of failure to use outside resources, such as trips and exhibits, nevertheless all classes showed some concreteness in their programs. Therefore no class was rated as Inferior.

Six, or 23.07 per cent of the classes, were rated at 2, or Below Average. These all showed concreteness through the Industrial Arts or Crafts programs, and the socialization in the class. Three of the classes did not show any concrete social experiences through Gymnasium or Assembly Hall experiences and programs. The classes seemed to lean more upon vicarious experiences. It was evident that even an aquarium would have aided in the reading about fish, or that an exhibit of chocolate in any of its forms, would have aided in the study of the cocoa bean.

Fourteen, or 53.85 per cent of the classes, were rated as Average. The same sort of concreteness was shown in these classes as in those rated at Below Average, but they existed to a greater degree. Additions such as rulers, compasses,
nature study references and dramatization, afforded some rare opportunities also.

Five, or 19.23 per cent of the classes, rated at Above Average. In addition to the before-mentioned items, these classes had added: the study of measure, through pints and quarts; scales; and clocks, real clocks having hands that the children could move; food, such as apples and lollipops; real money to be counted, even though it would be spent outside the classroom and other such simple media. One class had a variety of experiences through working with costumes and stage sets. Another class studied public buildings, identifying them through pictures in the room and, in order to bring concreteness into the situation, arranged a treasure hunt permitting the pupils to identify the buildings they were studying by looking out of the window.

Only one class was rated as Superior. This class employed many of the above-mentioned devices and in a greater multiplicity than any other one; it also featured a display of the crafts products that were made in class. These were arranged and handled carefully by the pupils, and afforded further experiences. Another uniqueness was the arrangement, around the room, of the special interests of each individual pupil's hobby, special program, or type of material.
III. MANIPULATIVE EXPERIENCES

These experiences correlated somewhat with Arts and Crafts, or Industrial Arts, or the Art programs, but in a limited degree. Small manipulative activities were looked for in this item.

One class was rated as Inferior. The only evidence of any manipulation was in posters and a few scrapbooks, made by the pupils.

Six, or 23.07 per cent of the classes, were rated as Below Average. One of these afforded only shop work, but it was good. One had plenty of supplies. It was observed that in the Crafts program the girls participated very little, if any, and that any painting done was only copy work. A third class afforded some opportunities but little or no actual craftsmanship. The other three classes had beadwork, weaving and modeling to supplement their other materials.

Eleven, or 42.31 per cent of the classes, were rated as Average. The manipulative skills included finger-painting, imaginative and imitative modeling and painting, weaving, beadwork, scrapbooks and spool weaving, in abundance. Three of the classes were rated at 3, by virtue of the type of shop and art classes provided.

Six, or 23.07 per cent of the classes, were rated as Above Average. The difference in the media employed was that of quantity. Leather-craft was the only new work that was
added. In one class where the major equipment supplied was paint the use of media, such as bottles and boxes afforded the pupils more opportunities than did some other classes which supplied better equipment.

Two classes, or 7.69 per cent of the classes, were rated as Superior since superiority existed both quantitatively and qualitatively. No new media was afforded, but craftsmanship was excellent and the materials were used to full advantage by every child.

IV. NATURE AND USE OF DRILL

In five, or 19.23 per cent of the classes, there was little evidence of any kind of drill and, in talking with the teacher, only vagueness resulted. In two classes, drill was presented to the entire group with no meanings whatever attached. For example, all pupils copied words from the blackboard and then looked up the dictionary definitions of them. The third class was given spelling drill in this fashion, the words being spelled orally, then set down on paper. No meaning, showing the use or value of the words, accompanied the drill.

Seven, or 26.92 per cent of the classes, were rated as Below Average. Here again it was found that little meaning was given to the drills. The best drill observed was that of a game-type program, the pupils looking for names of given countries on the blackboard then locating them in their text-
books. Drills from card material were isolated, even though these were such as suited individual needs. The fact that the pupils just picked them out, rather than to have them presented progressively, indicated a lack of system in drills.

Ten, or 38.46 per cent of the classes, were rated as Average. Drills were made meaningful and, in most instances, presented in groups, rather than to an entire class at once. Discussion about real experiences related to the type work helped in making these presentations realistic. Auditory, visual and kinesthetic methods were used with discrimination. Games were used as media, and the interrelation of the various types was considered in making the rating. One class had oral drills on special written work suggested by themselves on the previous day. They then "found" the items listed on the chart which they had been discussing. They had individual checks for a type-game that included the items. This was under the topic "Transportation," and although the pupils were of primary mental ages, the provisions for the individual's success was obvious.

Three, or 11.54 per cent of the classes, were rated as Above Average because they more nearly were individualized, and their manner of presentation was more varied. In one of these classes no actual drill was observed, but the results of drill were evident in a special program that was put on for the visitor. In this, the teacher stood to one side, or stood at the back of the room, while the pupils made their demon-
strations, often without guidance. The group worked together on this, almost every child having a part.

Only one class was rated as Superior. In reading drills that were observed, each group as well as each individual in the group, took part in the drills. These were of the game variety, affording few, or many, repetitions as needed. Meaning was given to words that were new and the pupils were encouraged to discuss them freely, citing personal experiences. The pupils discovered parts of words and then, when mastery had been achieved, erased the word from the blackboard and looked for it in the textbook, success being attained in each instance. The work was carried on for 10 minutes, then a new set of words were presented to another group, indicating an awareness of the learning rate of the pupils.

V. ADJUSTMENT TO INDIVIDUAL NEEDS

Four, or 15.38 per cent of the classes, were rated as Inferior, due to the fact that the same types of activities and the same standards, seemed to be demanded of all the pupils, the same books being used in at least three of the four classes rated. Though some slight provisions may have been planned they were not sufficiently developed to justify a higher rating.

Twelve, or 46.15 per cent of the classes, were rated as Below Average. In these classes there were slight indications of adjustments having been made in the Oral work. In
others the textbook assignments varied. In eight of the classes, the rating paralleled exactly the rating on texts. In one class, there seemed to be slightly better adjustment than the texts indicated as possible. In the other three classes, it was evident that the material which was available had not been used to its fullest extent. Some efforts along such lines, however, were shown in isolated cases.

Five, or 19.23 per cent of the classes, were rated as Average. Individual abilities were considered and provisions were made for many of them. In three instances, the rating corresponded to that on Textbooks for the same class. In the fourth, the textbook rating was higher. In the fifth, it was lower. This again might have been due to the oral factor.

Three, or 11.54 per cent of the classes, were rated as Above Average. Interests and abilities were noted and flexibility made it possible to care for the individual needs. Variations in the comprehension checks suggested a higher rating.

Two, or 7.69 per cent of the classes, were rated as Superior. In both classes the program was flexible, and all individualization of assignment were cared for. Physical, mental and emotional needs seemed to have been met. The texts were made available to one class but in the other the teacher had made special preparation, thus overcoming the in-adequacy of material for that class and providing for in-
VI. INTEGRATION

Fourteen, or 53.85 per cent of the classes, were rated as Inferior. There was no evidence of integration through visual aids or exhibits, or in the oral work presented during the period of observation. Textbooks predominated although other media were used, such as newspapers and advertisements.

Four, or 15.38 per cent of the classes, were rated as Below Average. There was evidence of such integration in reading, social studies and spelling. One class dramatization suggested integration of oral work with activity, but nothing in the way of units appeared.

Four of the classes were rated as Average because of definite unit set-up, although none tended toward a total coordination. All of these were primarily social studies' materials, and some detailed objectives went along with them.

Four or 15.38 per cent of the classes, were rated as Above Average. The units were City Government, United Nations, Transportation, and Clothing. The first two were used by older pupils, the last two for younger pupils. In these, the material did not cut across subject-matter lines, and since all of the classes in this group were making provision for individualization, the units probably answered the needs of many. Only one class provided a culminating activity of any proportion.
No Superior class was rated since the unit work tended to be individualized, rather than group organized.

VII. BAND OR ORCHESTRA

Twenty-four, or 92.15 per cent of the classes, were rated as Inferior since they had made no provisions for music in any way other than as a regular class, available for the whole group.

One class, or 3.85 per cent of the entire 26 classes studied, had arranged for one boy to take music lessons outside of the school; therefore, it was given a rating of 2.

One class, or 3.85 per cent of the classes, had two pupils taking violin lessons, a feature of the system which encouraged other pupils to take advantage of similar opportunities. This class was rated as Above Average.

No class was rated as Average or Superior.

VIII. OUTSIDE ART

Twenty-two, or 84.61 per cent of the classes, had made no provisions for any special art program and therefore were rated as Inferior.

One class was rated as Average because the pupils all were provided with an Art course. But as art was made compulsory as a subject in the class not providing for special abilities, and since no extra time was arranged for those in the class to pursue special interests or talents, it could not be said to be providing for special abilities.
Three classes were rated as Above Average since all could take art, and extra time was provided for those who desired to pursue it further, or who had any special talent in that direction. One pupil, for instance, was given a scholarship so that advanced work might be done.

No class was rated as Below Average or Superior.

IX. PRACTICAL ARITHMETIC

It was difficult to ascertain practicality in many of the content subjects, based on the concept that practicality is to consist in having real situations and references afford practical measures.

Four, or 15.38 per cent of the classes, seemed to be inferior in this respect. They had no material on hand to indicate the use of Practical Arithmetic, even in so simple a case as that of counting their own classmates.

Thirteen, or 50 per cent of the classes, were rated as Below Average. Evidence was shown in the use of money for class exercises, the use of yardsticks and of some basic skills. Credit was given for measure in shop and art, and as well, in cooking classes for the older group of pupils.

Six, or 23.07 per cent of the classes, were rated as Average. Four of these six used real objects, such as vegetables, lollipops, games, pint and quart measures, calendars and the like, to provide quantitative number for pupils whose mental ages ranged up to 10 years. In the other three
classes, where the mental ages ranged to about 11 years, and where the chronological ages ranged to 16 years, clocks, real measures, stamps, scales and budgets, afforded good bases for rating.

Three, or 11.54 per cent of the classes, were rated as Above Average, based on the fact that newspaper advertisements for groceries and other merchandise, and budgeting plus some practice cards of a more abstract nature (but well motivated) were employed. Numbers also were used in cooking and in arts and crafts programs.

No class was rated as Superior.

X. PRACTICAL READING

The insufficient evidence of practicality in reading existed in 3, or 11.54 per cent of the classes. This seemed to justify a rating of 1, or Inferior. No materials, other than class reading to stimulate the pupils, was observed. They had texts that ranged from poor to fair, no classroom library, no material of a visual nature having a background of reading matter, and few self-administering activities. One class did have a shop, but few directions were evidenced there.

Eight, or 30.77 per cent of the classes, were rated at 2. In four of these classes the practical application of reading stemmed from directions, board work, or self-administering work devised by the teacher. Some of these served as
enrichment for other phases of the class program, while one afforded a reference room. Another class, working on Transportation, had reading material in manuscript form at the level of most of the group. The mental ages for these groups was from 6 to 10, with one ranging down to 4; and the other four classes had children whose mental ages ranged from 6 to about 13 years. Thus consideration of these factors was called for in making any justification. Practicality in oral reading, providing new or enriching experiences, had to be accredited. Activities in cooking rooms, or industrial arts, furnished the major portion of the reading for practical application.

Seven, or 26.92 per cent of the classes, were rated as Average on the basis of material that was directive. Some reading in search for facts in content subjects as well as to find materials for other purposes, was noted. Extra classes in music, cooking, industrial arts and games justified the position on the scale.

Seven, or 26.92 per cent of the classes, were rated as Above Average. Materials for programs, special charts, scrap-books, newspaper advertisements, and reports for part of the class work furnished outstanding evidence that progress was being made and that practical application was employed. Only two of the classes were made up of pupils almost all in the lower mental and chronological age brackets. Evidence from five came from the other experiences afforded the
pupils in other rooms.

Only one class was rated as Superior. Newspapers, charts, directions, teacher-prepared booklets and pupil-prepared books of stories they had enjoyed, furnished evidence of practical application in reading. The teacher-prepared material was a significant point, since it indicated purposeful reading to gain information about city, country and state government. The material was on a low vocabulary level, but it held high interest for pupils who were chronologically older.

XI. PRACTICAL WRITTEN RECALL

No evidence, or else very little, was present in nine, or 34.62 per cent of the classes, even when notebooks, or queries to see the written work of the pupils was resorted to, therefore these classes were rated as Inferior. Little written work was seen even for exhibition purposes. The only written work that was in evidence in one room where the mental ages ranged up to 12 years, consisted of sentences, using words previously looked up in the dictionary. In another class, pupils copied questions from the blackboard.

Ten, or 38.46 per cent of the classes, were rated as Below Average. Observation revealed several different types of practical application to a limited degree. Three of these had written recall on the bulletin board. In one class, where the intelligence quotients and mental ages were lowest, limited paper and pencil writing of the manuscript variety,
prevailed. The pupils, however, had plenty of practical written work on the blackboard, which was rated as practical application because it afforded a medium for pupils in the readiness stage. One class afforded practicality in application through having provided motives for self-esteem by permitting some problem pupils (very low on the mental scale) to write about their individual interests and to show their written work to the principal. Other classes used grocery lists, lists of clothing about which they were studying, pricing and making of signs. All utilized some form of objective tests, but none of this material was evident to any extent.

Five, or 19.23 per cent of the classes, were rated as Average. The before-mentioned types of practical application in written recall were observed in greater quantity. To these had been added written reports of findings in social studies to be used with the whole class; streets and addresses of buildings about which they were studying, and note book work containing reports, pictorial materials and drawings, had been used for special programs.

Two, or 7.69 per cent of the classes, were rated as Above Average due to the fact that the lists and original work existed in greater amounts. Use was made of the exhibits and visual materials so as to permit the pupils to write about them for board use, or to obtain such materials through letter-writing.
No class was rated as Superior.

XII. PRACTICAL APPLICATION IN SOCIAL STUDIES

Six, or 23.07 per cent of the classes, were rated as Inferior. None of the classes from Inferior to Above Average had applied Social Studies in the area of the community, other than vicariously. In these Inferior classes, the text was the principal medium of approach to the study. Two of the classes made up of pupils chronologically and mentally younger, seemed to not to have had any cooperative, socializing adventures even though the content was at their level. They had no contacts with other normal pupils in their schools, except that the two groups met occasionally at assemblies. They apparently were limited to their own classrooms, and they had few opportunities for making their own decisions. Three of the classes were composed of chronologically-older pupils who, although they used other classrooms, had their work separate from normal pupils. The school orientation that was afforded seemed inadequate for their age. There was no evidence of participation in reaching decisions to justify a higher rating. The last class had a program in another room but was segregated from normal pupils. It did, however, share infrequent assemblies with normal pupils. In this class there were pupils whose intelligence quotients were in the normal range. The text was the primary source of their work.
Seven, or 26.92 per cent of the classes, were rated as Below Average, and the text dominated the program. Socialization was somewhat superior to that found in the Inferior groups, yet appeared to have only quantitative clues. Two of the classes of older pupils were completely segregated from normal pupils in a big junior high school building. Efforts to compensate for this by relieving tension in the classes, and by providing vicarious community approaches, raised these two classes to the Below Average group.

Seven, or 26.92 per cent of the classes, were rated as Average in making practical application of Social Studies. One vivid, although perhaps vicarious orientation in the community served to raise the level of one class. Texts were supplemented by practical health considerations, a variety of media, a realistic farm study, and many purposeful trips through the school buildings, with practical orientation throughout New England plus outside resource people thus affording situations that brought these classes up to a point that might be considered as Average.

Six, or 23.07 per cent of the classes, were rated as Above Average. These classes provided material geared to their level and the kind of class and school experiences that made them seem to be superior to all others in social situations with other pupils, except in two instances. These two were in Centers where provision, over and beyond what was
made elsewhere to other classes, was made to aid the pupils in finding out about their community. No actual problem situations were stressed, but local natural studies, home life, citizenship responsibilities and a segment of the national picture were presented at the level of the pupils, all of which furnished evidence of practical application in the field of Social Studies.

No observations seemed to justify a Superior rating.

XIII. PRACTICAL APPLICATION IN ORAL EXPRESSION

Five, or 19.23 per cent of the classes, were rated as Inferior in practical application in Oral Expression. Oral work was observed to some extent in all of the classes, but chiefly in drills, or in comprehension of reading materials, and there was little evidence of any other practical criteria. In one class, no evidence was found.

In eight, or 30.77 per cent of the classes, Oral Expression was rated as Below Average, since the responses were so feeble. In one class, the pupils acted as if they were suppressed; in another, where reading might have afforded opportunity for discussion, only a small part of the group participated. Poise was evident to an extent that justified a rating of 2. In one class of older girls, the child care program provided the pupils with opportunity to report experiences and to carry on good group discussions. The second part of the hour, in the Social Studies class, these same
pupils appeared to be shy and ill at ease.

Five, or 19.23 per cent of the classes, were rated as Average. In these classes there were evidences of reports, announcements, discussions, and game participation, that justified an Average rating. An arithmetic lesson afforded an opportunity to observe pupils whose posture was good, who listened when others were talking, and who looked at the person speaking and made responses in keeping with the subject brought up. In presentation of details and in making a report, there seemed to be justification for rating another class at 3.

Five, or 19.23 per cent of the classes, were rated as Above Average. The practical application of oral work was evident in one excellent report on Army-Navy Transportation. The discussion was a natural outgrowth of the use of interest. It related to a segment of work in which these older boys were concerned. Another class, well above Average, was able to conduct a meeting according to parliamentary procedure; but it failed to qualify for a higher rating because of its inability to carry on conversation in an informal manner. One dramatization brought a younger group of pupils up to this high level. Although its practicality may be questioned, it did have a carry-over value in reporting informally, and in personal conversations.
Three, or 11.54 per cent of the classes, were rated as Superior in view of their greater degree of application of the above-mentioned determinants. There was no outstanding incident to deserve comment unless it were that, in one case, the pupils under observation performed introductions, served as escorts around the buildings on occasion, greeting the different teachers in the building and their classmates as well, with a decorum that might have been expected of older people.
E. ATMOSPHERE

On Table X has been rated the percentage of 26 Special Classes, according to the items under the section Atmosphere.

TABLE X

PERCENTAGES OF 26 SPECIAL CLASSES RATED ACCORDING TO EACH ITEM OF THE SECTION ON ATMOSPHERE

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Set-up</td>
<td>15.38</td>
<td>34.62</td>
<td>38.46</td>
<td>11.54</td>
<td>--</td>
</tr>
<tr>
<td>Work Habits</td>
<td>3.85</td>
<td>15.38</td>
<td>46.15</td>
<td>26.92</td>
<td>7.69</td>
</tr>
<tr>
<td>Discipline</td>
<td>3.85</td>
<td>23.07</td>
<td>34.62</td>
<td>26.92</td>
<td>11.54</td>
</tr>
<tr>
<td>Teacher Attitude</td>
<td>3.85</td>
<td>26.92</td>
<td>30.77</td>
<td>26.92</td>
<td>11.54</td>
</tr>
<tr>
<td>Pupil Co-operation</td>
<td>23.07</td>
<td>23.07</td>
<td>30.77</td>
<td>15.38</td>
<td>7.69</td>
</tr>
</tbody>
</table>

I. PHYSICAL SET-UP

Four, or 15.38 per cent of the classes, were rated as Inferior in this item due to the fact that two of the rooms were in the basement of a school, wholly segregated from all other pupils. As observed, one of these rooms was entirely too crowded for the number of gangly pupils who occupied it and the other, while larger was more cluttered. The last two rooms were well located in the building but both had stationary desks, and no attempt had been made to improve the
physical set-up. One, with bare walls, had too many desks for the number of pupils, but plenty of blackboard space and good, but unused, bulletin boards. The other had a stage-like alcove, which was cluttered up with old materials such as magazines and broken-down supplies. The vestiges of broken pipes, and the constant clatter of workmen's hammers further detracted from the set-up and though only temporary, was not conducive to good work.

Nine, or 34.62 per cent of the classes, were rated as Below Average. All of these rooms had the usual amount of blackboard space and none were over-crowded by the number of pupils in the class. Desks were placed stiffly in the room with little opportunity for varying the activities. The status of these five classes was improved through efforts of the teacher to provide corner group activities and moveable stools and tables. One basement room had a corner space for the craft program which improved its physical set-up. It also had a table-chair arrangement for group work and the teacher had made advantageous use of all available space. Three of the classes had moveable desks but broken equipment in one corner or great disorderliness to affect its rating status. One of these rooms was a part of the assembly hall set off by screens. The arrangement and groupings, however, made the class pleasant and desirable beyond expectancy.

Ten, or 38.46 per cent of the classes, were rated as Average. There were moveable desks, or table-and-chair set-
ups, adjusted to the size of the pupils. In one instance, however, the stationary desk arrangement in the academic room was offset by the facilities used in other rooms by the pupils. Therefore, the whole status, rather than the isolated class, was considered.

Three, or 11.54 per cent of the classes, were rated as Above Average. Physical set-ups, conducive to an activity-type program were spacious, and different kinds of cabinets and cupboards were available. All three of these classes had extra space for the crafts program which made them more satisfactory.

No class was rated as Superior on physical set-up.

II. WORK HABITS

One class or 3.85 per cent was rated as Inferior. These pupils required constant supervision so that they would apply themselves; even then they failed. Some were quite inactive.

Four, or 15.38 per cent, were rated as Below Average. They required teacher direction to a large extent but not as constantly as the Inferior class. One class, where the pupils had aided in the time-planning, nevertheless, failed to follow through on the plan and fell into this group.

Twelve, or 46.15 per cent of the classes, were rated Average. The pupils worked fairly effectively under supervision without requiring constant direction. In one class, where freedom of movement was permitted, there was aimless
mulling about rather than direct attack during the observation period, perhaps because they had been disturbed. In most instances an attempt was made to observe work habits before entering the room so as to obviate any influences that might distract. The proportion of the class diligently at work, therefore, was used as the basis of rating.

Seven, or 26.92 per cent of the classes, were rated as Above Average. The pupils seemed busy and interested, and rarely had to be reminded of their tasks. One class justifies comment: The mental ages were extremely low but the pupils worked independently and when the teacher left the room she did not need to leave instructions. Moreover, upon her return they were apparently as diligently at work as when she left.

Two, or 7.69 per cent of the classes, were rated as Superior. The pupils had high standards and applied themselves over long periods of time without external direction from the teacher. Both classes were in the lower mental-age range. One deserves comment. When interrupted by three people during the time of observation it yet continued with the work in hand. The teacher's direction seemed to be the only time that these pupils were disturbed, and then, only one pupil failed to go back to his work, one whose I.Q. was below 50.
III. DISCIPLINE

Only one class could be rated as Inferior. Disciplinary problems were to a large extent non-existent. They did exist in isolated instances, or where autocratic rather than democratic practices prevailed. The inferior class was in a decidedly crowded dark class room with a rigid schedule. The pupils themselves appeared to be overactive and overstimulated. The teacher also seemed to be under strain. Discipline, however, had been noted before the classroom was entered. Previous to that, one pupil had been sent from the class into the hall for disciplinary purposes and another was sent out later.

Six, or 23.07 per cent of the classes, were rated as Below Average. These were largely teacher-dominated. In three of these six, attempts had been made to have pupil participation. The evidence present such as calling down pupils, snapping fingers, and rapping on desks, were measures that could scarcely be expected to produce integrated personalities in classes where pupil participation was the aim.

Nine, or 34.62 per cent of the classes, were rated as Average. In these classes, there was a tendency toward social control although the teacher acted authoritatively at times. In two classes it was felt, rather than observed, that the teacher controlled the group since some of the pupils "just sat." Neither negative nor positive statements
could be made about these classes. In most of the classes there was some freedom of movement and ease on the part of the pupils. In one instance, where pupils were observed in more than one room, those in the academic work were wholly teacher-controlled but their own social control and self-control, in the other room, warranted an Average rating.

Seven, or 26.92 per cent of the classes, rated Above Average. Naturalness, ease and freedom prevailed. Social control was the disciplinary medium employed. The teacher's admonitions in one or two cases, when given, were in a quiet, suggestive manner. It should be noted that one class had few pupils but they behaved in a mature manner.

Three, or 11.54 per cent of the classes, were rated as Superior. Self-and group-control was noted while the teachers guided the activities. Freedom of movement prevailed and the total observational period provided good opportunity to justify the statement that "naturalistic" situations existed. The physical set-up in two of the classrooms did not seem to justify such a statement, yet both of the classes rated high on pupil participation. The third classroom had desirable features but failed to rate well on pupil participation, but the many other factors saved the situation. Two of the classes were composed largely of primary-grade pupils, and the third, of pupils having low mental ages but high chronological ages.
IV. TEACHER ATTITUDE TOWARD PUPILS

Only one class was rated as Inferior on this item. The teacher complained about the pupils, censoring them openly, and even said loudly, in the presence of at least one girl, if not in the hearing of all, that she had had better classes.

Seven, or 26.92 per cent of the classes, were rated as Below Average. Their teachers also were somewhat critical but more indirectly so. "Our best singer is not here today," a teacher remarked, when one boy volunteered to sing.

Eight, or 30.77 per cent of the classes, were rated as Average. The general attitude of these teachers was one of respect for the individual. Patience, friendliness, some understanding and some rapport may be said to have characterized them.

Seven, or 26.93 per cent of the classes, were rated as Above Average. This group was characterized by the same qualities beforementioned and a good sense of humor.

Three, or 11.54 per cent of the classes, were rated as Superior. There seemed to be a complete understanding on the part of these leaders. They minimized errors, respected the pupils and received respect, and became a part of the group where guidance rather than direction was the order of the day.
V. PUPIL CO-OPERATION WITH EACH OTHER

Six, or 23.07 per cent of the classes, failed to achieve co-operation and therefore were rated as Inferior. Even where pupils were allowed to move freely, and where there were physical provisions for co-operation, competition was more often noted.

Six, or 23.07 per cent of the classes were rated as Below Average. Co-operation in discussion-work, and in individual help to each other, existed. Yet, in a cooking class, some of the girls went off and left the final tasks for one girl to finish. In another class, all was competitive except their co-operation in relation to comprehension checks.

Eight, or 30.77 per cent of the classes, were rated as Average. Here the attitudes were co-operative, and there was a trend away from competition but there were no big co-operative ventures. The pupils seemed to respect and help one another individually, respected others' property rights, showed pride in others' accomplishments and worked together in clean-up tasks.

Four, or 15.38 per cent of the classes, were rated as Above Average, providing evidence of co-operation throughout most of the period. Accord with others' point of view, helping by applause when a deaf child got the right answer, active co-operation without teacher direction and good sportsmanship in games, all afforded evidence for such a rating.
Three of the four classes were engaged in some co-operative venture, seeming to supply further justification.

Two, or 7.69 per cent of the classes, were rated as Superior. One of these classes was working on a unifying project, and all of the pupils worked toward its fulfillment. The other group, with somewhat younger pupils, mentally and chronologically, assisted each other in individual tasks and moved freely about the room while so doing.
F. EVALUATION

Table XI is designed to state the percentage ratings of the 26 Special Classes studied, according to each item under the Evaluation Section.

TABLE XI

PERCENTAGES OF 26 SPECIAL CLASSES RATED ACCORDING TO EACH ITEM OF THE SECTION ON EVALUATION

<table>
<thead>
<tr>
<th>Rating Items</th>
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<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Tests</td>
<td>15.38</td>
<td>26.92</td>
<td>30.77</td>
<td>19.23</td>
<td>7.69</td>
</tr>
<tr>
<td>Cumulative Records</td>
<td>42.31</td>
<td>26.92</td>
<td>15.38</td>
<td>15.38</td>
<td>--</td>
</tr>
</tbody>
</table>

I. TESTS

Four, or 15.38 per cent of the classes, were rated as Inferior. The major portion of the evaluation seemed to result from formal tests, which varied from the Massachusetts State Traveling Clinic tests to a situation that had more extensive tests. However, in one class, the teacher did not know what the mental ages of her pupils were and said she did not have the date, even though she did have the Traveling Clinic's report on her desk. One teacher had been out most of the year and there was no evidence in the oral presentation of the work to suggest anything but teacher criticism.
All classes had meager socializing programs.

Seven, or 26.92 per cent of the classes, were rated as Below Average. The formal testing program afforded a basis for raising three of these classes to 2, yet the emphasis was on evaluation tending toward the teacher helping the pupils to see their own progress. Health and social consequences were considered, but from what could be observed the evaluation was teacher-dominated to a large extent.

Eight, or 30.77 per cent of the classes, were rated as Average. In these classes, the pupils made decisions regarding progress, or were led to see it. One class employed varied media in comprehension checks affording outlets for those not capable of more academic answers thus providing for success. One class was raised to this level due to the Shop teacher's use of self-evaluation charts although the class had teacher criticisms in the academic work. Social and physical status was considered in all of these classes.

Five, or 19.23 per cent of the classes, were rated as Above Average. The formal testing program provided achievement tests yearly and in three classes, other tests were available upon request. One of the classes had only the Gates' Reading Readiness Test provided by the administration, but the teacher supplemented this with tests for the few pupils who needed them. This particular class was making strides toward self-evaluation. Standards were determined
when one pupil said he wanted to change an answer. "It was not the best." Charts for pupils to check themselves by were evidenced in another class. This had a health, as well as an academic chart, and the social growth of the pupils was stressed. Another class, that deserves comment, discussed the individual's progress and group decisions were reached. Decisions involved the extent of progress made in knowledge of the city government and then individuals itemizing what each knew.

Two, or 7.69 per cent of the classes, were rated as Superior. Each class was different in every respect but one, where mental ages were 6 - 9, and I.Q.'s all under 80, was critical of its own work to the extent that tasks were discarded and done over when unsatisfactory. The teacher had pupil charts for each child. The other class made decisions on pupil conduct (really a citizenship program), and the right and wrong of social situations. The mental ages of these pupils were only 8 to 12 years, but they were chronologically older. The teachers and principal staffed each case and had knowledge of the progress each child was making.

II. CUMULATIVE RECORDS

The provision made for cumulative records on the school basis was meagre. Records as such actually were provided in only one classroom. However, it was found that teachers
were making efforts to compile cumulative records for their classes and consequently, the ratings were based upon this evidence.

Eleven, or 42.31 per cent of the classes, were rated as Inferior. There was little evidence of cumulative records.

Seven, or 26.92 per cent of the classes, were rated as Below Average. There were only meagre records in these rooms. These consisted of a few scholastic records.

Four, or 15.38 per cent of the classes, were rated as Average. These records, too, were primarily on achievement but more complete than those rated lower. One teacher had devised an excellent and complete type card but had little data on it.

Four, or 15.38 per cent of the classes, were rated as Above Average. Two of these had included physical and social needs of the pupils. One had anecdotal records and the fourth had a photograph of each child (for teacher use) with a record of his progress. Each of these teachers knew something of the pupil’s background, even if unrecorded.

No class was rated as Superior, even though there were some charts, or graphs, for children, in the rooms. These were not of a permanent nature, and no records included all of the areas deserving evaluation. Observation did not reveal much individual self-evaluation although it would scarcely have been expected except in individual conferences.
G. FUTURE PLANNING FOR INDIVIDUALS

Table XII serves to indicate the percentage ratings of each item under the heading: Future Planning for Individuals.

**TABLE XII**

PERCENTAGES OF 26 SPECIAL CLASSES RATED ACCORDING TO EACH ITEM OF THE SECTION ON FUTURE PLANNING FOR INDIVIDUALS

<table>
<thead>
<tr>
<th>Rating</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Vocational Guidance</td>
<td>45.38</td>
<td>38.46</td>
<td>30.77</td>
<td>15.38</td>
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<tr>
<td>Work During School Time</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Work Outside School Time</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td>Follow-up After School</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Placement through Guidance Service</td>
<td>100</td>
<td>--</td>
<td>--</td>
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<td>--</td>
</tr>
</tbody>
</table>

I. VOCATIONAL GUIDANCE

There was little evidence of vocational guidance as such in these classes. Therefore, in making ratings on this item consideration was given to such factors as work habits, opportunities for socialization, pupil cooperation, up-
grading, arts, and manipulative programs.

Four classes, or 15.38 per cent, were rated as Inferior. Three of these classes were composed of pupils whose chronological ages ranged up to 15 years and yet the opportunities provided were so meagre as to make them wholly inadequate for such a large group of boys. In two instances there were no provisions for up-grading girls.

Ten, or 38.46 per cent of the classes, were rated as Below Average. The pupils in six of these classes had opportunities to go on to a higher school where more socialization plus industrial arts were provided. In four classes where the pupils were between 13 and 17 years, there were no further chances for training. No work on occupational information or any guidance seemed to be afforded.

Eight, or 30.77 per cent of the classes, were rated as Average on Vocational Guidance. More opportunities were provided for these pupils who were chronologically older and although there was no counseling, some information on community jobs was available. On the lower levels upgrading was made possible and some reading materials on the different kinds of jobs in the community, furnished the basis for comparison.

Four, or 15.38 per cent of the classes, were rated as Above Average when comparisons were drawn. Three achieved this status by virtue of having had some counseling services
of an educational and vocational nature. The pupils in the other class were from 10 to 14 years and had opportunities for up-grading, as well as for counseling services. Other than that, their craft facilities were high grade and their work habits and cooperative ratings were also good.

No class was rated as Superior.

II. WORK DURING SCHOOL TIME

Twenty-six, or 100 per cent of the classes, made no provisions for work during school time and therefore were rated as Inferior.

III. WORK OUTSIDE SCHOOL TIME

Twenty-six, or 100 per cent of the classes failed to provide work outside of school time and therefore were rated 1 or Inferior.

IV. FOLLOW-UP AFTER SCHOOL

Twenty-six, or 100 per cent of the classes did not provide for follow-up and therefore were rated as Inferior.

V. PLACEMENT THROUGH GUIDANCE SERVICE

Twenty-six, or 100 per cent of the classes, failed to provide placement opportunities although one guidance department head said he would do so if ever called upon. They all were rated as Inferior.
CHAPTER IV

Part III

COMPARISONS OF AVERAGE SECTIONAL RATINGS, TOTAL RATINGS, AND OF BEST, AVERAGE, AND POOREST CLASSES ON THE SECTIONAL RATINGS

1. These Sectional Comparisons, have been derived from averaging the ratings of all the items in each section.

2. The total comparisons made in Part III are derived from averaging the ratings of all the items in all of the sections.

3. The comparisons of the Best, Middle and Poorest, classes were made by using the previously-derived Sectional ratings.

TABLE XIII

PERCENTAGES OF 26 SPECIAL CLASSES WHEN COMPARISONS OF THE AVERAGE SECTIONAL RATINGS OF THE SCALE WERE USED

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
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<th>5</th>
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<tbody>
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<td>Planning</td>
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<td>11.54</td>
<td>26.92</td>
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</tr>
<tr>
<td>Equipment &amp; Supplies</td>
<td>3.85</td>
<td>88.45</td>
<td>3.85</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Use of Equipment</td>
<td>53.85</td>
<td>42.31</td>
<td>3.85</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>11.54</td>
<td>50.00</td>
<td>30.77</td>
<td>7.69</td>
<td></td>
</tr>
<tr>
<td>Atmosphere</td>
<td>3.85</td>
<td>26.92</td>
<td>38.46</td>
<td>30.77</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>15.38</td>
<td>34.62</td>
<td>46.15</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Future Plans</td>
<td>92.15</td>
<td>15.38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A. PLANNING

When the Sectional ratings were drawn up, it was revealed that under Planning, two, or 7.69 per cent of the classes, were rated as Inferior. Fourteen, or 53.85 per cent of the classes, were rated as Below Average. Three or 11.54 per cent of the classes, were rated as Average. Seven, or 26.92 per cent of the classes, were rated as Above Average. No class was rated as Superior.

B. EQUIPMENT AND SUPPLIES

One, or 3.85 per cent of the classes, were rated as Inferior. Twenty-three, or 88.46 per cent of the classes were rated as Below Average. One or 3.85 per cent of the classes were rated Average. One or 3.85 per cent of the classes were rated Above Average. No class was rated as Superior on Equipment and Supplies.

C. USE OF EQUIPMENT

Fourteen, or 53.85 per cent of the classes, were rated as Inferior. Eleven, or 42.31 per cent of the classes were rated as Below Average. One of 3.85 per cent of the classes was rated as Average. No class was rated Above Average or Superior.

D. EXPERIENCING

Three, or 11.54 per cent of the classes were rated as Inferior. Thirteen, or 50.00 per cent of the classes were rated as Below Average. Eight or 30.77 per cent of the
classes were rated as Average. Two, or 7.69 per cent of
the classes, were rated above Average. No class was rated
Superior.

E. ATMOSPHERE

One, or 3.85 per cent of the classes, was rated as
Inferior. Seven, or 26.92 per cent of the classes, were
rated as Below Average. Ten, or 38.46 per cent of the class-
es, were rated as Average. Eight, or 30.77 per cent of the
classes, were rated as Above Average.

No class was rated as Superior.

F. EVALUATION

Four, or 15.38 per cent of the classes, were rated as
Inferior. Nine, or 34.62 per cent of the classes, were rated
as Below Average. Twelve, or 46.15 of the classes, were
rated as Average. One, or 3.35 per cent of the classes, was
rated as Above Average.

No class was rated as Superior.

G. FUTURE PLANNING FOR INDIVIDUALS

Twenty-two, or 92.15 per cent of the classes, were rated
as Inferior. Four, or 15.38 per cent of the classes were
rated as Below Average.

No class was rated as Average, Above Average, or Superior.

A comparison of all ratings, above the three, or Average
crating, reveals that the greatest strength is found to be:
(1) in Atmosphere, (2) in Planning, and (3) in Experiencing. Only one class was rated above 3, in Equipment and Supplies, and in Evaluation. No class was rated above 3 in Use of Equipment or in Future Planning for Individuals.

**TABLE XIV**

PERCENTAGES OF 26 SPECIAL CLASSES WHEN COMPARISONS OF THE AVERAGE RATINGS OF THE TOTAL SCALE WERE USED

<table>
<thead>
<tr>
<th>Ratings</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentages of Classes</td>
<td>7.69</td>
<td>69.23</td>
<td>23.07</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

When an average of the total scale was used, it showed that two, or 7.69 per cent of the classes, were rated as Inferior. Eighteen, or 69.23 per cent of the classes, were rated as Below Average. Six, or 23.07 per cent of the classes, were rated as Average.

**TABLE XV**

COMPARISONS OF THE 6 AVERAGE OR BEST CLASSES ON THE SECTIONAL RATINGS

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>100</td>
<td>--</td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td>--</td>
<td>50.</td>
<td>33.33</td>
<td>16.67</td>
<td>--</td>
</tr>
<tr>
<td>Use of Equipment</td>
<td>16.67</td>
<td>83.33</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
All six, or 100 per cent of the classes, average or best, were rated as Above Average in Planning. Three, or 50 per cent, were rated as Below Average in Equipment and Supplies, two of them rated as Average and only one was rated as Above Average. One, or 16.67 per cent of the classes, was rated as Inferior in use of Equipment while five were rated as Below Average. Four, or 66.67 per cent, were rated as Average in Experiencing and two, or 33.33 per cent, were rated as Above Average. Only one class was rated as Below Average in Atmosphere while two, or 33.33 per cent, were rated as Average, and three, or 50 per cent, were rated as Above Average. Five, or 83.33 per cent, were rated as Average on Evaluation and one, or 16.67 per cent, was rated as Above Average. On Future Planning for Individuals three, or 50 per cent of these classes were rated as Inferior and three, or 50 per cent, were rated as Below Average.
### Table XVI

COMPARISON OF THE 18 BELOW AVERAGE OR MIDDLE GROUP OF CLASSES ON THE SECTIONAL RATINGS

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>--</td>
<td>77.78</td>
<td>22.22</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td>--</td>
<td>100.</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Use of Equipment</td>
<td>61.11</td>
<td>33.33</td>
<td>5.56</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Experiencing</td>
<td>5.56</td>
<td>72.33</td>
<td>22.22</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>--</td>
<td>27.77</td>
<td>44.44</td>
<td>27.77</td>
<td>--</td>
</tr>
<tr>
<td>Evaluation</td>
<td>16.67</td>
<td>44.44</td>
<td>38.88</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Future Plans</td>
<td>94.44</td>
<td>5.56</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Five, or 27.77 per cent of the 18 classes falling into the middle group, were rated as Above Average on Atmosphere, eight, or 44.44 per cent, as Average and five, or 27.77 per cent, as Below Average. In all other sections these 18 classes were rated as Average, Below Average, or Inferior. Four, or 22.22 per cent of these classes, were rated as Average on Experiencing and Planning. Fourteen, or 77.78 per cent were rated as Below Average, or Inferior.

All of the 18, or 100 per cent of the middle group of classes, were rated as Below Average on Equipment, Supplies and Future Planning.

One, or 5.56 per cent, was rated as Average on Use of Equipment, 33.33 per cent were rated as Below Average and
61.11 per cent were rated as Inferior.

Seven, or 33.33 per cent, were rated as Average on Evaluation and the other classes were rated as Below Average or Superior.

TABLE XVII

COMPARISONS OF THE 2 INFERIOR, OR POOREST, CLASSES ON THE SECTIONAL RATINGS

<table>
<thead>
<tr>
<th>Ratings</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td>50</td>
<td>50</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Use of Equipment</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Experiencing</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>50</td>
<td>50</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Evaluation</td>
<td>50</td>
<td>50</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Future Plans</td>
<td>100</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Each of these two poorest classes was rated as Below Average or Inferior, on every section of the scale.

One class was rated as Below Average on Equipment and Supplies, Atmosphere and Evaluation.
CHAPTER V
SUMMARY AND CONCLUSIONS

This investigation was made in order to determine the status of the 26 Special Classes in the eight Massachusetts towns, when rated on items believed to be of value in work with Special Classes for mentally-retarded pupils.

The findings of the items covered by the study were subjected to descriptive treatment in order to clarify all points at which the classes were rated. This analysis then served as the basis for determining the Sectional Ratings and the Total Ratings of the Classes.

Due to the inter-relatedness of many of the items, the conclusions have been drawn largely from the major points of the Rating scale that was devised at the beginning of the study.

I. SUMMARY OF THE FINDINGS

Composition of classes.—Number of Pupils—

1. The number of pupils in the classes ranged from 3 to 20.

2. There were 366 pupils in the 26 classes—
   274 Boys
   92 Girls

   Intelligence Quotients—

1. The intelligence quotients ranged from 45 to 104.
2. The highest intelligence quotients in all, or 100 per cent of the classes, ranged from 71 to 104.

3. The lowest intelligence quotients in all, or 100 per cent of the classes, ranged from 45 to 70.

Mental Ages-

1. The mental ages of the pupils in the classes ranged from 4-5 to 14-1.

2. The highest mental ages in all, or 100 per cent of the classes, ranged from 9-6 to 14-1.

3. The lowest mental ages in all, or 100 per cent of the classes, ranged from 4-5 to 11-5.

Chronological Ages-

1. The chronological ages of the pupils in the classes ranged from 6-10 to 18-2.

2. The highest chronological ages in all, or 100 per cent of the classes, ranged from 12-2 to 18-2.

3. The lowest chronological ages in all, or 100 per cent of the classes, ranged from 6-10 to 14-5.

Relative Ratings of Classes According to Sections of Scale.--

percentages of classes rated as Average or Above Average, on the different sections, from the strongest to the weakest, were:

1. Atmosphere - 13, or 63.23 per cent of the classes.
2. Evaluation - 13, or 50 per cent of the classes.
3. Planning - 10, or 38.46 per cent of the classes.
4. Experiencing - 10, or 38.46 per cent of the classes.
5. Equipment and Supplies - 2, or 7.69 per cent of the classes.
6. Use of Equipment - 2, or 3.35 per cent of the classes.

7. Future Planning - no classes.

Relative ratings of classes according to total scale. - Percentages of the classes as rated from the best to the poorest class on the total scale, were as follows:

1. Average - 6, or 23.07 per cent of the classes.
2. Below Average - 18, or 69.23 per cent of the classes.
3. Inferior - 2, or 7.69 per cent of the classes.

Sectional ratings of the 6 Average or Best Classes. - Sections of the scale in which 100 per cent of the 6 best classes were rated as Average or Better:

1. Planning
2. Experiencing
3. Evaluation

Sectional ratings of the 18 Middle Classes. - The middle group of classes were rated as Average or Better, on the different sections of the scale, in the following order:

1. Atmosphere - 13, or 77.22 per cent of the classes.
2. Evaluation - 7, or 39.38 per cent of the classes.
3. Planning - 4, or 22.22 per cent of the classes.
4. Experiencing

- 4, or 22.22 per cent of the classes.

5. Use of Equipment

- 1, or 5.56 per cent of the classes.

Sectional ratings of the 2 poorest classes.—Neither of two of these classes were rated as Average on any section of the scale. All were Below Average.

II. CONCLUSIONS AND RECOMMENDATIONS

There would seem to be a need of more careful diagnoses of pupils before placing them in Special Classes, since the ratio of 3 boys to 1 girl appears to be out of proportion. Yet, according to some sources, there are no sex differences in intelligence. Furthermore, since the I.Q. range is so great (ranging from feeble-minded to normal), perhaps remedial work, or some other clinical technique, rather than Special-Class placement might be employed in the case of some of these pupils. However, when or if such placement be finally determined, then assignment of the pupils, at least to the section of the school where they will fit chronologically and where they may work with normals if they can do so satisfactorily, would seem to be the next step.

Six of the classes had pupils whose chronological ages ranged from 16-6 to 18-5, yet there was only one high school class used in the study. "Mental ages, chronological ages and I.Q., as well as social maturity, all should be consider-
ed in making placements. Further consideration should be given to pupils whose I.Q.'s were 50 or below.

The interesting aspects of the many provisions have a bearing on the results of this study. This is true of Equipment and Supplies while the Use of Equipment, Experiencing and Atmosphere, particularly, might be affected. In spite of weaknesses in some areas, it would seem that teacher-dominated items are superior to all other items on the scale. If the physical set-up of the rooms could be changed to meet the need for activity, then more complete integration might result. This, too, may have a bearing on Planning, in providing for greater flexibility.

Specific suggestions, evolving from such relationships, are made as follows:

1. More emphasis might be placed on pupil participation through class and group discussion and varied activity.

2. More books of high interest and low vocabulary should be provided. This might increase practicality in reading and also provide more fully for recreational outlets.

3. More exhibits and displays might be used and thereby concrete experiences might be increased.

4. Visual and auditory aids of the mechanical type, such as radios, records and victrolas, slides, movie equipment, and opaque projectors are needed for practical purposes. These should supplement the pictorial materials furnished by the teachers and pupils and might afford more vicarious experiences, instead of being only symbolic in character.

5. Arts and crafts, even industrial arts, might well
be extended to the more functional areas of learning, such as regular repair work and common household jobs. For although all classes had pupils up to 12-2 in chronological ages, and some of the classes, namely, 25, had some pupils 14 years of age and over to whom more practical equipment might be furnished, yet the major portion of supplies were of the paper-crystal-paint variety.

6. More rooms could be allotted for the use of classes, thus affording some opportunities, at least, for work with normals and for better personal adjustments, particularly where other teachers were employed.

7. The use of trips and excursions might be profitably employed for informational purposes, socializing purposes, occupational guidance, and to bring concreteness and knowledge of the local community to the pupils.

8. Special abilities of pupils should be discovered and provisions made for their training in some branch of the school system.

9. Cumulative records of a permanent nature would afford guidance of a more tangible sort for the pupils.

10. Vocational guidance might well be extended to include more aptitude tests, multiple opportunities to develop coordination, dexterity and social adjustments within the school and not just within the class. An over-view of the whole economic structure and the relationships between the different types of jobs, might aid these pupils in becoming economically-competent. Integrated class units and work experiences during and after school, might afford basic training for manual and non-manual skills. According to the study, twenty-two, or 84.61 per cent of the classes, contained pupils with chronological ages and intelligence quotients that might suggest the profit these pupils might know through a greater amount of such training. Regrouping for such vocational guidance, perhaps, might be practical. If chronological age, moreover, were to be used realistically, then social maturation and emotional stability also should be included. Furthermore, intelligence quotients and reading grades of the pupils might be considered.

Placement, and follow-up of pupils, might well become a part of every Special Class. Trained counselors might be provided to aid teachers in carrying out such
extensive programs.

11. Finally, socializing opportunities might be provided for the pupils of all classes. This is suggested because the majority of the Special Class pupils were so totally segregated from normal pupils, even when housed in the same building.

The above recommendations would seem to apply, at least in some of their aspects, to almost all of the classes. However, as there were several classes in which pupils were in the lower mental and chronological age bracket it would look as though, apart from the recommendations concerning placement, these classes would profit greatly from (1) a re-arrangement of the physical set-up of classrooms to make these more attractive and usable, particularly in the removal of stationery desks; (2) more adequate mechanical aids and exhibits; (3) better academic equipment and more varied media for crafts; and (4) greater pupil participation in more flexible and integrated programs.
CHAPTER VI
LIMITATIONS OF THE STUDY AND PROBLEMS
FOR FURTHER RESEARCH

I. LIMITATIONS OF THIS STUDY

This study was limited by many factors, three of the most obvious being: that:

1. The ratings were made by one person.
2. The ratings were made only once.
3. A short period of time was spent in observing the actual teaching-learning situations.

II. SUGGESTIONS FOR FURTHER RESEARCH

Numerous suggestions for further research have beened as a result of this study. Some of these suggestions may be listed as follows:

1. Similar studies should be made, using the same classes.
2. Another study, in which several investigators shall pool their findings on the same classes, should be made.
3. A more careful study of the classes where ratings were high on the total scale, or on any one section of the scale, should be made in order to determine valuable teaching techniques.
4. A study should be made to determine the amount of Special Class participation with normal pupils.
5. A study to determine the use of democratic processes
in the Special Classes might follow.

6. A comparison might be made of equated groups of pupils in regular classes on adjusted curricula with those in Special Classes.

7. A comparison of the equipment and supplies afforded the best classes with equipment and supplies of other classes.

8. A comparison of the training of teachers of the best classes with the training of those in classes rated as Below Average.

9. A more thorough study might be made selecting any one item, or section of the scale, as its subject, and employing a longer time, or averaging the findings from several observations.

10. Precise degrees of differences on the scale might be established.


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Wallin, J. E. W., "A New Approach Toward the Educational Adjustment of the Mentally Retarded and Specifically Handicapped in Small Schools." Journal of Exceptional Children, XI (January, 1944), p. 120.


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D. YEARBOOK ARTICLES


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