Ready or Not

Here He Comes

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Report of the State Committee

On School Entrance Age

(Title V ESEA Project)

State of Maine

Department of Education

Augusta

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Cover picture — by Tash of Lewiston

Chapter I

INTRODUCTION

One of the perennial questions facing school systems is how to determine the right age for admitting children to school. There is often pressure from parents to lower school-entrance age by a few months; and, as often, pressure from teachers and sometimes from school boards to raise the age. Research and literature on child development do not provide specific guidelines for a flexible school entrance age policy.

Policies in Other States

By Maine law a child must be five years of age on or before October 15 before he can enter the kindergarten and must be six years old by the same date before being admitted to grade one. In almost all the states, chronological age is the main criterion for school entrance. Entrance age varies from six years by September 1 to six by the succeeding January 31 to enter grade one.

Table I summarizes the current entrance requirements in the several states. While many states admit children to the first grade at a younger age (17 states at 5 years 8 months and 5 years 9 months), the trend is to delay entrance until they are 5 years 10 months to six years (18 states).

Table I

Age Required by Several States for Entrance to First Grade

Required Date	Age at Entrance	Number of States
No date set		2
Local decision, no statewide policy		13
6 sometime in January	5 yr. 8 mo.	6
6 " " December	5 yr. 9 mo.	11
6 " " November	5 yr. 10 mo.	4
6 " " October	5 yr. 11 mo.	9
6 " " September	6 yr.	5
		50

Maine School Entrance Law

Because of apparent dissatisfaction with chronology as a criterion for school entrance age, a bill was submitted to the 101st Maine Legislature which would have provided for a flexible school entrance age

with local school districts assuming responsibility for screening and testing prospective entrants. The proposed law would have modified other features of the five-year-old program such as moving the cut-off date from October 15 to September 1 for school entrance, substituting "kindergarten" for "preprimary" and "subprimary", prescribing certification requirements for teachers of five-year olds, and changing the ratio of pupils per teacher from 60 to 50.

There was clear public concern with the present arbitrary inflexible school entrance age—children must be five on or before October 15 to enter kindergarten. Several informal study groups were organized throughout the state to consider the merits of chronology, which often included a debate of the entire kindergarten program—methods, materials, and philosophy. Many inquiries were directed to local school officials and the State Department of Education concerning school entrance age. However, the absence of research and consistent policies in other states made recommendations on school entrance age policy difficult, if not impossible, to formulate.

The proponents of L. D. #273 (a flexible entrance age Act) generated mixed reactions among educators. Superintendents, teachers, and persons interested in child development attended the legislative hearings to relate the multiple difficulties involved in administering this kind of a law. The following problems were cited: the absence of tests with established reliability, the expense of employing examiners, financing physical and optical examinations, lowering pupil-teacher ratio, and the lack of teachers trained in early school education. The bill was referred to the Legislative Research Committee. The following recommendations were made to the 102nd Legislature:

1. That more study of school entrance age policies be made before enactment of legislation.

2. That the following amendment be enacted to allow present pilot projects to be expanded to include early school admission experimentation:

". . . pilot programs related to school entrance age may be administered locally with approval of the State Board of Education, during the 1965-66, 1966-67 school years only. Grade one age limitations shall not apply to children participating in these pilot programs."

Following the introduction of L. D. #273 a State Committee on School Entrance Age was formed by representatives of the Maine Ele-

mentary Principals Association, the Maine Elementary Supervisors Association and the State Department of Education and was funded by the Maine Teachers Association. The objectives of the committee were:

1. to investigate the area of early school programs
2. to evaluate programs of early school admission
3. to conduct experimentation with various testing techniques involved with school entrance and placement
4. to research all findings
5. to determine on a factual basis a recommended direction for Maine schools

In designing a research plan for the early school admission program, consideration was given to the results of the several surveys conducted by the committee prior to its involvement with the flexible entrance age project. These activities included meetings with kindergarten teachers throughout the state, and field testing the Gesell School Readiness test. A survey of fourth graders was conducted to examine the relationship between school performance and such factors as entering age, type of kindergarten program, sex differences, and nonpromotion. These projects are discussed in Chapter II and have been incorporated in the final recommendations.

A research proposal, submitted by the committee in May 1966 under Title V of the Elementary and Secondary Education Act 1965, was approved. It provided $13,333 to conduct five pilot projects and make recommendations on school entrance age and early childhood education in Maine to the State Board of Education.

Chapter II

BACKGROUND STUDIES

A study of early school entrance involves many intangible variables such as teacher-attitudes, the reliability and validity of admission criteria, the type of school program, as well as techniques and instruments for identifying, observing, and gathering data on the behavior of early school enrollees. Fortunately, the committee was able to utilize the information obtained from six action studies which preceded the flexible school entrance project. These activities sought answers to the following questions:

1. What were the views of kindergarten teachers based on their experience?

2. Is the chronological age of the child or the educational program more important in the beginning grades?

3. Does the beginning age and/or type of program have any long term effect on subsequent school performance?

4. If a flexible entrance age policy were established in Maine, on what basis would children be evaluated?

5. Is a flexible school entrance age policy in Maine administratively and financially feasible?

6. What training opportunities in early childhood education are available to teachers of five-year-olds?

7. What training and experience do Maine's kindergarten teachers have?

Kindergarten Teachers Meetings

Assessing the philosophy and attitudes of kindergarten teachers was recognized as an important first step in planning a school entrance study. Initially, the questionnaire technique was discarded in favor of a series of small group meetings with several hundred kindergarten teachers in several sections of the state. Representatives of the committee were given time at the State Conference of Elementary Principals to discuss their work and solicit reaction. Personal contacts with teachers provided informal and candid discussions of all aspects of the kindergarten program. These sessions also provided a means for obtaining teacher reactions regarding the work of the committee.

The general conclusions were:

1. Chronological age is a questionable measure of a child's readiness for entrance to school. Overall maturity, including emotional and social development, plays a more significant role in successful adjustment. A preschool testing program for determining school entrance was considered desirable. The difficulties of selecting suitable evaluative instruments and administering the program were discussed.

These opinions are substantially in agreement with the findings of King.[1] After studying the school performance of 101 under-age children at the end of six years in school, she found that many of those who entered first grade at a younger age did not achieve up to grade level and were more inclined to have poor social adjustment.

2. The older child tends to make a better adjustment to kindergarten because he is often more independent. Many teachers feel that September 1 may be a more realistic date than October 15.

This suggestion is in accord with the findings of Carter.[2] He found that older children had a significant advantage in academic achievement over younger children when given the same school experiences. Sex differences were also more pronounced. Achievement was significantly higher among early entering girls in spelling, English, and reading but not in mathematics.

3. Broad preschool experiences are more important to success in school than entering age.

4. Boys tend to have more difficulty in adjusting to school and seem less mature than girls.

5. Many teachers feel that 25 pupils for a three hour session should be the maximum class size.

6. Although mental ability is important for academic progress, social, emotional, and physical development and preschool experience also make a significant contribution to the child's early success in school.

[1]Inez B. King, "Effect of Age of Entrance into Grade One Upon Achievement in the Elementary School." *Elementary School Journal,* XX (February, 1955) Page 67.

[2]Lowell B. Carter, "The Effect of Early School Entrance on the Scholastic Achievement of Elementary School Children in the Austin, Texas Public Schools," *Journal of Educational Research,* L, (October, 1956).

7. A flexible entrance age law based on a preschool testing program would be desirable in providing for differences among children, with early entrance indicated for some children. Delayed entrance may be more advantageous to the less mature.

8. Programs for five-year-old children vary throughout the state. The common pattern involves the use of commercial readiness materials, permitting one group to receive formal reading instruction toward the end of the year.

9. More courses in kindergarten education should be made available for teachers.

Saco Field Tests

Selecting a developmental test which would provide a basis for comparing the growth levels of children was essential. After reviewing several standardized instruments, the school entrance committee decided to field-test the Gesell School Readiness Test, developed by the Gesell Institute and standardized on a population which included children from New England. The screening test of the Gesell battery was used to assess the maturity levels of children.

The performance of any child on the School Readiness Test tasks is relative. For example, what may constitute mature behavior in a four-year-old would be significantly immature behavior in a six-year-old child. Children with a chronological age of five years generally fall into the following classifications of maturity:

5A—Mature behavior for a five-year-old with good quality of performance

5B—Mature behavior for a five-year-old with lesser quality of performance

4½A—Immature behavior for a five-year-old with good quality of performance

4½B—Immature behavior for a five-year-old with lesser quality of performance

During the fall of 1964 all kindergarten classes in Saco were concentrated in one building. This was considered a suitable arrangement for studying the developmental levels of kindergarten children and testing the appropriateness of the Gesell School Readiness Test. The School Department agreed to cooperate with the school entrance committee in administering the test to all kindergarten pupils and organ-

izing the classes according to maturity levels. Two members of the committee, trained in the administration of the Gesell tests, volunteered to examine 200 kindergarten pupils. The test data were then given to the kindergarten teachers. Pupils were assigned to classrooms according to their maturity levels (5A, 5B, 4½A, and 4½B) as indicated by the Gesell test and by the mutual recommendation of the examiners and teachers.

After studying the characteristics of each of the four major groups, the staff made adjustments in the curriculum to accommodate the varying maturity levels. A kindergarten specialist was employed to work with the teachers in developing appropriate class activities and teaching procedures. For example, the 5A classes were organized in a more academic structure, while the least mature 4½B group had a less formal program with some nursery school activities.

The Saco study reflected the basic educational viewpoint that children should be grouped or promoted on the basis of their developmental levels, not solely on the basis of chronological age or intelligence. Justification for this philosophy is indicated in all the studies cited previously involving academic comparisons of groups according to combinations of chronological and mental ages.

The kindergarten staff in Saco approved the project because it was possible to make year-long plans for the wide range of individual differences. The interest was also reflected in the decision to send the principal of the school to the Gesell Institute for special training. Testing has continued in succeeding years. Utilization of the test data was not made at subsequent grade levels.

Brunswick Field Test

The Gesell School Readiness Test was used in Brunswick with the oldest and youngest pupils in the kindergarten with no subsequent change in grouping or school program. The purpose was to determine if selected sub-tests of the developmental battery at the start of the school year could reliably predict probable school success or failure.

Kindergarten teachers cooperated by keeping a weekly record of activities for each group in the classroom. These plans were analyzed to ascertain if the class program was informal (creative, non-academic program) or structured (formal instruction in readiness, reading and number). Teachers were not given the results of the Gesell developmental tests.

In the fall of 1964, 140 pupils were tested. This group included all children in the system whose birthdays came between July 1 and December 31, 1958. Of this number 84 children were in the Brunswick system at the end of kindergarten; and 66 were in Brunswick schools at the end of grade 1. The following information is reported on these children:

1. Maturity and Chronological Age

Eighty-six percent of the younger boys (born July 1-Oct. 15) and seventy-nine percent of younger girls were judged immature according to performance on the Gesell tests. None of the older boys (born Oct. 16-Dec. 31) and girls was considered unready for school. The Gesell scores clearly indicated that chronologically older children are more ready for school.

2. Maturity and Retention

Of the 49 children who were rated as immature, 14 left the Brunswick schools before the end of grade 1. Of the remaining 35 children, 16 (46 percent) were not promoted in grade 1. The failure incidence for children judged mature was 6, (19 percent of the sample). These results reveal that immature children had greater chances of repeating a grade than those who were rated mature.

3. Grade I Performance and Gesell Ratings

Of 24 boys with immature or unready Gesell ratings at the beginning of the kindergarten, 11 (45 percent) were doing below average work at the end of grade 1. In comparison, of the 25 girls with immature ratings, 16 (64 percent) were doing unsatisfactory work. Immature ratings on the Gesell developmental test seemed to relate to subsequent academic difficulty, particularly for the girls.

4. Teacher Ratings and Gesell Ratings

Teachers were asked to rate pupils on the basis of maturity at the end of the first grade. These ratings were compared with those obtained from the Gesell developmental test to ascertain whether immature children would exhibit these traits in classroom situations. The teacher and Gesell classifications of maturity were fairly similar. The teachers indicated immature traits in 13 boys; 9 received the same rating on the Gesell test; 8 girls were rated immature by the teacher, and 5 had developmental test rating of immature.

5. Reading Achievement and Gesell Ratings

Because of the relatively short period of time devoted to reading instruction, it was not possible to make any specific inferences regard-

ing Gesell rating and reading achievement. However, many pupils with immature ratings were not doing as well as those with mature scores at the end of grade 1. Nine boys and 16 girls were reading one year below grade level. Eight boys and 13 girls had an immature rating on the Gesell test. Again, note should be made of the preponderance of girls who were not achieving.

Kindergarten Teacher Survey

A questionnaire was developed and sent to all kindergarten teachers to obtain information concerning their professional backgrounds and number of years of teaching experience. These data were to be used in planning pre- and in-service activities for the teacher-preparation institutions and the State Department of Education. The responses of 217 kindergarten teachers have been tabulated as follows:

1. The majority had at least three years of teaching experience.
2. Approximately 6 percent reported that they were graduates of institutions specializing in kindergarten education. Less than 5 percent received any specific kindergarten training in Maine.
3. Approximately 18 percent had practice teaching at the kindergarten or nursery school level. In some instances, this experience was part of a primary block including grades 1 through 3.
4. The majority indicated no specific pre-service training for kindergarten teaching.
5. A significant number expressed a desire for courses in kindergarten methods which would include readiness guidance, social control, and kindergarten curriculum.
6. Teachers indicated a need for a general kindergarten curriculum bulletin prepared by the State Department of Education.*

A survey of Maine's teacher training institutions revealed that programs for kindergarten teaching are part of an overall primary education course. The home economics departments have some nursery school training.

Since the survey revealed a need for special courses for kindergarten teachers, members of the School Entrance Age Committee met with University of Maine nursery school personnel in March, 1966 to support a National Defense Education Act Title XI application for a kindergarten teachers institute for the summer of 1967. Letters of support were sent to the U. S. Office of Education by the Commissioner of Education, the Executive Secretary of the Maine Teachers Association, and the presidents of the State Elementary Supervisors, Elementary

*A curriculum guide *Reading Instruction in the Kindergarten* was issued by the Maine State Department of Education in May 1966.

Principals, and Superintendents Associations. This request was not approved.

Fourth Grade Study

The Committee studied the academic performance of 873 fourth grade pupils attending 19 elementary schools to ascertain the effect of school entering age and the type of kindergarten program (formal vs informal) on subsequent progress. Among the variables isolated were sex differences, type of kindergarten programs, reading achievement, mental ability, and a subjective evaluation of emotional and social problems. The following conclusions were drawn from the study:

1. There was no evidence to suggest that a relationship exists between entering age and the rating assigned to each child's school performance in grade four.
2. The school performance of boys and girls in the fourth grade differed significantly. The data suggested that girls are rated higher in achievement than boys.
3. Sex differences were related to promotion and non-promotion. In all cases, more boys than girls repeated in grades one and two.
4. For boys, the relationship between the type of kindergarten program and school performance was significant.
5. No relationship between entering age and repeating is apparent.

Under-age fourth grade children were examined in Summit, New Jersey, to assess school progress.[3] The child's chronological age, school entrance age, academic performance, and intelligence were studied. Children who possessed above average to superior intelligence made satisfactory progress despite school entrance below age six. However, children with average and below average intelligence made better progress in school when entering after age six. The chronologically older child seemed to have a greater chance for academic success.

The fourth grade study in Maine raised several questions concerning the long-term effect of school entrance age and programs. The New England Educational Assessment Project has assumed responsibility for further investigation. Many of the features of the original fourth grade study have been incorporated in the research design of the Assessment Project. The Project, which includes the New England States and is funded by Title V of the Elementary and Secondary Education Act, is charged with developing criteria and procedures for assessing educational programs which may give direction to future activities of state departments of education.

[3]Elizabeth B. Bigelow, "School Progress of Under-Age Children," *Elementary School Journal*, XXXV, (November, 1934), page 182.

Chapter III

EARLY SCHOOL ENTRANCE STUDY

Pilot studies were conducted in Bangor, Brunswick, Caribou, Deer Isle, and Ellsworth. These areas were selected as representative Maine communities possessing one or more of these features: urban, rural, and coastal areas; stable and mobile population; college oriented; military impact; large city, town, and small village.

A coordinator, appointed by the School Entrance Age Committee, visited superintendents in each center and made arrangements for publicizing the study. Children whose fifth birthdays fell after October 15 but before January 1 were eligible for early school entrance based upon the criteria established by the committee. Local newspapers carried news accounts of the project in each area.

Pupils were selected by the following screening devices listed in procedural order: individual intelligence tests, Gesell developmental tests, physical and visual examinations, and an interview with a licensed psychologist.

The design for the flexible school entrance study was based upon multiple criteria similar to those employed by Hobson[4] and Brick.[5]

The parents gave several reasons for wanting their children to enter school early. Some were concerned that the child's birth date was so near the deadline; some compared their child to other children; some were simply willing to take part in the project and accept the results.

Individual Intelligence Testing

The Stanford-Binet Intelligence Scale, Form L-M, was selected because of the availability of examiners and because the test was considered more valid for young children.

The school programs into which the early school enrollees would enter would not be changed or modified for them. Since they would be competing with children as much as 15 months older, the committee decided that their mental age should be better than the 5-0 level. An I.Q. of 110 or higher was required in order for a child to move into the second phase of the testing program.

One hundred and twenty-two children were tested. The median I.Q. was 107, with a range from 66 to 140. Two children scored below a measurable level. A distribution of scores appears in Table II.

[4]J. R. Hobson, "High School Performance of Under-age Pupils Initially Admitted to the Kindergarten on the Basis of Physical and Psychological Examinations," *Educational and Psychological Measurement.*

[5]John W. Brick, "Early School Admission for Mentally Advanced Children," *Exceptional Children*, XXI (December, 1954).

Table II

I.Q. Scores for Children Seeking Early School Entrance

No. of Cases	Range	Percent	Stanine
7	130 up	5.7	9
6	124-129	4.9	8
3	119-123	2.5	7
17	112-118	13.9	6
29	106-111	23.8	5
25	99-105	20.5	4
14	93-98	11.5	3
8	86-92	6.6	2
13	Below 85	10.6	1
122		100.0	

Approximately 16 percent of the children had I.Q.'s below the normal range. However, their parents considered them ready for early school entrance. The range of successful performance levels (from basal age to ceiling age) among the children with I.Q.'s of 110 or higher is shown in Table III.

Table III

Basal (Lowest Level) and Ceiling (Highest Level) Ages Among Children with I.Q.'s Exceeding 110

	Basal Age		Ceiling Ages			
No. of Cases	Yrs.	Mos.	VI	VII	VIII	IX
1	VI				1	
9	V			2	4	3
16	IV	VI	5	7	1	3
9	IV			3	4	2
5	III	VI	1	1	1	2
40	Totals		6	13	11	10

Of the 40 children with I.Q.'s of 110 or above, 6 were unable to answer any questions beyond the 5-year-level, and 10 progressed to age 9 before being unable to continue. There was variance of performance among higher I.Q. children.

The three children finally selected for early school entrance had I.Q.'s of 139, 133, and 113.

Gesell School Readiness Test

The Gesell School Readiness Test was administered to the 40 children whose I.Q. exceeded 110—21 boys and 19 girls. A rating of 5A (mature with high quality performance) was required for a child to move on to the next step of the program. Performance at a five-year level of development appeared more realistic, since the younger entering children would have to compete with five-year-olds in a formal school setting.

Table IV shows the Gesell data.

Table IV
Gesell Readiness Test Scores

Gesell Rating	Girls	Boys
Not ready	0	1
4½B	2	5
4½A	12	13
5B	0	0
5A	5	2

Seven children received 5A ratings. Five were girls and two were boys. Their I.Q.'s ranged from 111 to 139. The 33 other children had the same range of I.Q.'s. However, their Gesell performance would be expected of four-and-a-half-year-old children. The largest number, 25, had a 4½A rating. If these children were admitted to school, they might experience difficulty.

Physical Examinations

The seven children who took part in this phase of the program were given complete physical examinations. All the children passed.

Visual Examination

A complete visual examination was given by a qualified examiner. Reports indicated that all were free of visual defects which could affect school success.

Psychological Examination

The same seven children were also interviewed by a licensed child psychologist. After holding interviews with each parent and child, he recommended that three children start school in the fall of 1966. This excluded two boys and two girls, leaving three girls eligible for early school entrance.

The four children who were excluded had excellent potential, but the psychologist felt in each case there were too many indications of

emotional immaturity which might have a detrimental effect on future school adjustment. In some cases he advocated nursery school, and in one case, where the child had moved into a new neighborhood, he felt the child should have a year to become acquainted with his new surroundings.

Three children whose fifth birthdays fell between October 15 and December 31 were admitted to school in the fall of 1966. Two girls entered the kindergarten in Caribou, one in Bangor. No attempt was made to modify the kindergarten program for them. However, plans will be made to follow their progress in school.

RECOMMENDATIONS

1. The School Entrance Age Committee recognizes the educational desirability of a flexible school entrance age if it can be based on mental ability, social maturity, emotional maturity and physical maturity. Not to consider all of these areas of growth in determining a child's readiness for admission to school could have a detrimental effect on his future progress. Children in the five pilot communities were evaluated. Only three children were judged ready for public school experiences. Mental, developmental, physical and psychological examinations cost approximately $70 per child. Because of the cost, the lack of qualified examiners, and the relatively small number of children admitted in the pilot study, the Committee recommends that no flexible school entrance legislation be introduced at this time.

2. The Committee believes that if the recommendations in this report are implemented, no change in the local school entrance age should be made at this time. If, however, the recommendations are not carried out, an earlier entrance date would be advisable. (An earlier date means an older child). The Committee strongly believes that it really makes no difference at what age a child enters school as long as the curriculum and activities are consistent with his level of development. The Committee has been concerned with the inconsistency in the types of kindergarten programs that exist in Maine, and recommends that attention be focused on programs for five-year-old children before consideration is given to flexibility in the entering age.

3. There is a pressing need to provide training for kindergarten teachers in Maine. Colleges preparing teachers should make available a program in early childhood education specifically designed for the training of kindergarten teachers.

4. A specialist in early childhood education should be added to the staff of the State Department of Education, to provide leadership to teachers and administrators in establishing program guidelines for teaching the five-year-old, as well as to stimulate pre- and in-service programs for kindergarten teachers.

5. Workshops, institutes, and extension courses based on kindergarten teaching methods and child growth and development should be offered by the State Department of Education and the teacher-training institutions to kindergarten teachers already in service.

6. Local school districts that are developing programs for five-year-old children or improving existing programs should utilize the services of resource persons or institutions specializing in kindergarten education.

7. Local school districts should assume leadership in evaluating, defining, and interpreting the philosophy and objectives of the kindergarten program with the professional staff, special teachers, and parents.

8. The kindergarten should consist of no more than 25 pupils per session. An optimum class would be 15 for each half-day session.

9. Immediate attention should be directed to providing educational experiences in the kindergarten that are appropriate to the total development of five-year-olds. For example, the use of commercial readiness materials in group settings for *all* pupils is a questionable educational practice.

10. Flexible programs should be planned to meet the differences in ability, maturity, and interest levels of five-year-olds, giving consideration to the differences in growth, development, and interest between boys and girls.

11. It is essential to have cooperation and communication between the kindergarten and grade one teachers in order to develop a sequential program. The Committee endorses the recommendation of the National Education Association Policies Commission, which states that the first grade program should grow out of the early schooling and not vice versa.

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