

EDUCATION
OF DEPENDENT CHILDREN
IN INSTITUTIONS

MONOGRAPH IV
TO ACCOMPANY ROUND TABLE PLAN
FOR TRUSTEES OF INSTITUTIONS
FOR DEPENDENT CHILDREN

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The Round Table Plan has been prepared to assist boards of trustees of institutions caring for dependent children in their administrative duties. It comprises eight studies, or round tables, each of which is devoted to a vital problem of institutional management.

To discuss the questions raised, the Department of Child-Helping of the Russell Sage Foundation is preparing a series of eight monographs, one to accompany each of the Round Tables.

In the following monograph, "The Education of Dependent Children in Institutions," only the academic and vocational aspects of the subject are discussed. The social, moral, religious, and other forms of education will be treated in the next monograph of the series, "Development of the Individual Child in Institutions for Dependents."

The following monographs are now available:

- I. "The Job of Being a Trustee," by Dr. Hastings H. Hart.
- II. "Admission and Discharge of Children," by Dr. Hastings H. Hart.
- III. "Physical Care of Dependent Children in Institutions," by C. Spencer Richardson.

The Round Table Plan and the Monographs can be obtained from the Department of Child-Helping at five cents a copy.

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BY C. SPENCER RICHARDSON

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When dependent children of fourteen years or more go out from institutions they must usually begin at once to earn their own living. This fact definitely shapes the main purpose of academic and vocational education in most of the institutions. An institution should give to its dependent wards social, moral, and religious training, but first it must develop in them breadwinning ability.

The educational problem of an institution for dependent children differs from that of the public schools in two respects:

First, children on entrance to institutions average lower in mental development than public school children living in private homes. Unfortunate heredity or an early environment of poverty, ignorance, or neglect cause in many cases bodily defects which, allowed to develop for years, result in mental retardation. A child who is normal in mind and body on entrance is an exception.

Second, the children must ordinarily support themselves after leaving the institution. While over half of the public school children go to work before the age of seventeen, as a rule they continue to live in their own homes and merely help by their earnings to meet the family expenses. If they lose a position they are fairly sure of a home and also encouragement to aid them in starting anew; but ordinarily the child from the institution must fight his battles alone—he must rely for success upon his own unaided efforts.

USE OF PUBLIC SCHOOLS

The important question arises: Shall the trustees send their wards to the public schools to be educated, or shall they maintain a school within the institution? There is a difference of opinion upon this point.

Some educational authorities feel strongly that an institution for dependents should maintain its own school, at least through the

elementary grades.* Such authorities believe that where the teachers live with the children they come to know each child much more intimately than is possible for public school teachers, and learn their abilities and weaknesses; and they are therefore often better able to assist the children in the class room.

They point out that the public schools give too little vocational training, and that, furthermore, they do not connect up the academic subjects with actual life so as to give the children a practical preparation for a workaday world. On the other hand, they realize that by directing the school of letters they can bring into it from the routine life of the institution unlimited material with which to enrich the formal instruction of the class room and to interpret it in terms of actual experience.

Other authorities are equally positive that dependent institutional children should be sent to public schools, for the following reasons:

In the first place, the children are enabled to mingle with those from normal homes and thereby to acquire standards of dress, manner, and speech which they can not gain so well in any other way. Thus they become prepared to fit easily and naturally into their new environment in the outside world, and they avoid the sudden readjustment to new social conditions which is so trying an experience to institutional children.

In the second place, the children attend schools that form part of a great system of education. In the majority of states the educational system has developed year by year to increasingly higher standards of administration, instruction, and equipment. Institutional schools, however, are often isolated and in many cases fail entirely to avail themselves of modern educational methods. The public schools can often afford to pay higher salaries than institutional schools and therefore can employ teachers of better training and longer experience. Moreover they can provide series of lectures, equipment for moving pictures, museums, and other educational facilities which the institutions with their more limited resources can not afford.

In the third place, the use of public schools is less expensive. By sending the children out to school an institution saves the cost of

* Reeder, R. R.: *How Two Children Live and Learn*, pp. 117-133. Hastings-on-Hudson, New York, R. R. Reeder, 1911. \$1.25.

teachers' salaries, supplies, and up-keep of the school. The only expense is for car fare, and this can be saved where the public school is within walking distance from the institution.

A compromise plan has been adopted by a number of institutions whereby they have arranged for the public schools to send teachers to them. Under this plan the institutions furnish and maintain the school plant, while the public schools provide the teachers and usually, also, the textbooks and other supplies; *e. g.*, the Hawthorne School at Hawthorne, New York, and the Hebrew Orphan Asylum in New York City.

As compared with the sending-out method this arrangement has the advantages of freedom for the children from exposure in the public schools to disease and the loss of schooling in case of quarantine, of the saving of the time required for going to and from the public schools, and of the opportunity to the teachers for correlating the class room work with the other institutional activities. On the other hand, its disadvantages are that the children by not mingling with those from normal homes fail to receive a much needed cultural experience, that the expense is greater because of the entailed up-keep of the school plant, and that institutions ordinarily can not provide as good buildings, equipment, and educational facilities as can public schools.

As compared with the institutional school method the plan has the advantages of a connection with local and state systems of education, of a better quality of teachers than institutions usually provide, and of the saving to the institution of the cost of the teachers' salaries and of school supplies. Its disadvantages are that most of the teachers live outside the institution and therefore are not so well acquainted with the individual needs of their pupils, that the children do not have the opportunity of personal contact with the teachers in the social life of the institution, and that the division of authority between the institution and the public school tends to friction and retardment of the work.

Still another plan, and one which has found much favor, is for an institution to maintain a school for its younger children, but to send out to public schools those for the more advanced grades or for high school. This plan combines in large degree the advantages of the public and the institutional schools; and, especially, it gives to

promising ambitious children a high school education such as few institutions can provide.

The writer believes that it is preferable for an institution to maintain its own elementary school and to send out qualified children to a public high school, *provided* the institution has means sufficient to furnish trained experienced teachers, and an equipment equal to that of a good public elementary school; and *provided* it correlates its academic and vocational instruction so as to unite them into a vital whole. If institutions can not meet these conditions it would seem that, for the present at least, most of them should avail themselves of the opportunity to send out their children to good public schools or else, less preferable, arrange for public school teachers to come to them.

It is strongly urged that the trustees make sure by careful investigation that the public schools which they use maintain modern educational standards, especially where institutions are located in villages or small cities.

In the remainder of this monograph attention is called to some important points that trustees should consider in estimating the efficiency of a school.

ACADEMIC AND VOCATIONAL EDUCATION

The keynote of modern teaching is its appeal to the understanding of children. The old time methods of constantly drilling the memory, of requiring the children to commit meaningless definitions and long paragraphs, of learning "by rote," have largely given way to that of stimulating their reasoning powers. The progressive teacher of today seeks to awaken the interest of her pupils, encourages them to think, draws them out by questioning, leads them to form their own conclusions. Like a guide to travelers, she conducts her children into new fields of knowledge, points out to them noteworthy features, helps them to appreciate the significance of this knowledge by correlating it with what they have learned before, and so makes their journey pleasant and profitable.

Again, modern method realizes that children understand most readily what they see with their own eyes. If possible, it supplements a printed description of an object with a picture of it or,

better still, with the object itself. It utilizes maps, globes, photographs, models, the stereopticon, and also moving pictures. It brings into the class room specimens of ores, grains, woods, flowers, and the like. It secures from manufacturers specimens of raw materials in the different stages up to the finished product.* It takes the pupils upon trips to museums, art galleries, factories, and historic places. In brief, it takes advantage of every opportunity to present concrete illustrations of the subjects taught.

In determining what academic and vocational subjects should make up the curriculum, several fundamental ends of elementary education should be borne in mind. Education of children should promote their physical efficiency by teaching them intelligently to care for their bodies and to observe the laws of health. It should promote their mental efficiency by developing their powers of observation, reason, and memory. It should promote their moral and social efficiency by quickening their sense of right and wrong, and by helping them to develop a sense of fair play and of service to others. It should promote their vocational efficiency by training them to support themselves by the livelihood for which they are best fitted. It should promote their avocational efficiency by instructing them in a proper use of their leisure time.

To help realize these ends the elementary school subjects taught in institutions should include reading, writing, spelling, grammar, composition, arithmetic, history—including civics, geography, drawing, manual training—including household arts, elementary science, physiology and hygiene, physical training, and music. (For vocational subjects, see page 11.)

Usually children complete the elementary school course in eight years, beginning at the age of six or seven. Most educational authorities believe that the school year should consist of at least one hundred and eighty days or thirty-six weeks, each week having five five-hour days.

The accompanying table shows the distribution of time among the subjects taught in the elementary grades of fifty representative American cities. An institution may find from these figures how

*For list of manufacturers who will send illustrative material free, upon application, see Address List for Equipment and Supplies for Instruction in Household Arts. New York, Teachers College, Columbia University, 1913. 10 cents.

many hours are generally devoted to each subject in the various grades.

It is important that the content matter of each of these subjects be vital in the present as well as the future life of the child. For instance, the words which he learns to spell should be those which he needs to use at present as well as those he will have occasion to

TABLE 1.—HOURS PER YEAR AND PER CENT OF GRADE TIME GIVEN TO ELEMENTARY SCHOOL SUBJECTS IN FIFTY REPRESENTATIVE CITIES*

	Grades								All grades
	1	2	3	4	5	6	7	8	
Hours per year given to									
Reading and literature	266	235	188	153	126	117	98	97	1,280
Spelling	54	66	73	67	61	58	52	51	482
Handwriting	50	60	52	53	50	47	39	37	388
Language, composition, grammar	75	79	94	106	116	118	134	142	864
Arithmetic	60	96	131	149	144	146	140	142	1,008
History	27	31	35	57	67	71	91	117	496
Geography	16	7	50	83	102	107	98	76	539
Drawing	98	54	56	53	50	50	50	49	460
Manual training	42	47	40	45	50	57	72	74	427
Science, physiology, hygiene	37	41	40	37	34	40	45	57	331
Physical training	46	41	40	40	38	40	38	39	322
Music	45	48	47	48	45	45	45	44	367
Per cent of total time given to									
Reading and literature	30.6	26.1	20.8	15.8	13.1	12.1	10.0	9.6	17.0
Spelling	6.3	7.3	8.0	6.9	6.3	5.9	5.3	5.1	6.4
Handwriting	6.7	6.7	5.7	5.5	5.1	4.8	3.9	3.7	5.1
Language, composition, grammar	8.6	8.7	10.3	10.9	12.0	12.2	13.7	14.1	11.4
Arithmetic	6.9	10.7	14.4	15.4	14.9	15.0	14.4	14.1	13.3
History	3.1	3.4	3.8	5.8	6.9	7.3	9.2	11.6	6.5
Geography	1.8	0.8	5.4	8.5	11.2	11.0	9.9	7.6	7.1
Drawing	11.3	6.0	6.2	5.5	5.2	5.1	5.0	4.9	6.1
Manual training	4.8	5.1	4.5	4.6	5.2	5.8	7.1	7.4	5.6
Science, physiology, hygiene	4.3	4.5	4.4	3.8	3.5	4.2	4.5	5.7	4.4
Physical training	5.4	4.5	4.5	4.2	4.0	4.2	3.7	4.0	4.2
Music	5.2	5.3	5.1	4.9	4.7	4.6	4.4	4.4	4.8

*Bobbitt, Franklin: What the Schools Teach and Might Teach. New York, Division of Education of the Russell Sage Foundation, 1915. 25 cents.

write later on; and for unusual words, he should be trained to use the dictionary. His reading should be devoted, not to a few paragraphs read orally, but rather to the silent reading of as large a number as possible of the best books in literature and history. In arithmetic he should be taught to perform accurately and quickly those simple processes which he has to use now and later on; he should learn to add, multiply, divide, subtract, and to work in decimals and fractions. In history he should rapidly cover ancient history to get a proper perspective of modern; and in the latter the instruction may well center about significant topics such as great inventions, currency, transportation, mining, agriculture, and the like. In geography he should devote his time for the most part to industries, commerce, and modes of living.* The class room instruction should focus directly upon the child's present life and his fast approaching career. All useless material should be discarded even though precedent is thereby violated.

While the class room instruction should emphasize the practical, with especial reference to a preparation for wage-earning, it should not overlook the aesthetic. Most dependent children have experienced too few appeals to their finer sensibilities. In their home life they have met daily with low and sordid things, with unloveliness of character and also of physical surroundings. Because of the grind of poverty they have had small opportunity for refinement. Moreover, through irregular attendance they have missed some of the elevating influence of the public schools.

An institutional school, like a public school, can develop refinement in its children in several ways. It can help them to form a taste for reading the best in prose and poetry. It can enable them through instruction in elementary modeling and drawing to appreciate, in at least a small degree, the masterpieces of sculpture and painting. It can provide regular periods of singing under a competent leader and, for those showing talent, instrumental instruction. All children respond to the ennobling influence of music, and anyone who has heard institutional children sing under stimulating leadership and has watched their faces knows how completely their starved natures follow the lead of music upward to higher thoughts.

*Keller and Bishop. Commercial Industrial Geography. New York, Ginn and Co., 1912. \$1.

It is a regrettable fact that most institutions caring for dependent children end their educational provision with the eighth grade and give no further opportunity for scholastic advancement to boys and girls of unusual ability and ambition. Nothing serves more effectively to deaden the interest of a child, let us say in the sixth grade, than to know that when he has finished the eighth, the high school door will be shut in his face. Every institution should make it possible for pupils of unusual scholastic promise to secure a high school and college training. Some institutions have a special fund which they devote to this purpose, with the understanding that those who benefit by it will pay back the amount borrowed, when possible.

The Hebrew Sheltering Guardian Orphan Asylum at Pleasantville, New York, has conducted for six years a most interesting educational undertaking. The plan includes a full elementary school course, high school course, and considerable vocational instruction, for children who are to leave the institution at the age of sixteen. Largely by limiting its vacation period to three weeks, the institution gives to its children in nine years the academic instruction for which the state of New York requires twelve years, and furnishes vocational training in addition. It may be added that the plan has received the endorsement of the New York State Board of Regents.

A most difficult matter in connection with a child's education is to ascertain for what vocation he should be trained. Modern education has attempted to solve the problem by the simple expedient of permitting the child to discover this fact for himself through a "try out" in various vocations. Progressive public school systems and institutions are now commencing to make it possible for children to enter upon a "finding" process, usually lasting two years and generally beginning at the age of twelve, thirteen, or fourteen. The child passes from one vocational subject to another, spending a few months on each, and after having tried himself out in perhaps half a dozen, is then in a position to know, with the aid of his teachers and advisers, which one he prefers and for which he is best adapted. During his third year the child may specialize in the vocation which he has selected.

This pre-vocational training, naturally, will not make a finished journeyman of a boy or girl, but it will start them in the right direction and in many cases prevent a waste of time later on.

The extent to which an institution can provide prevocational education depends in a measure upon its finances and location. A fairly large income naturally makes possible a wider range of subjects than a small one. A location in the country offers opportunity for instruction in agricultural branches which location in the heart of a city forbids. Every institution, however, should provide for its children a "finding" experience.

Some of the vocational subjects which may be taught to boys are carpentry, electrical work, telegraphy, baking, plumbing, machine shop work, printing, sign painting, mechanical drawing, agricultural work, stenography, typewriting, and bookkeeping. Among suitable subjects for the girls are household arts including domestic science, sewing, dressmaking, and millinery; stenography, typewriting, bookkeeping, printing, fruit growing, preserving, gardening, poultry raising, and greenhouse work. Care should be taken that the vocational training shall be suited in every case to the mental development and physical strength of the children.

The vocational equipment should be purchased with a view to durability rather than to cheapness. The equipment in the machine shop, carpentry shop, blacksmith shop, and elsewhere in the institution, should be up-to-date and of standard quality. This is necessary not only for satisfactory service but also for the proper instruction of the children so that they shall be trained to use the kind of machinery which they will meet after leaving the institution.

Institutions which send their children to public schools or have public school teachers come to them, can supplement the vocational instruction by additional courses in the institution. For example, the Brooklyn Hebrew Orphan Asylum provides five hours a week of extra vocational work. This institution, with others, has made this additional provision not only because the public schools do not offer sufficient vocational instruction but also because many of their children through retardation are below the grades in which vocational teaching is given.

It is urged that promising children, after having completed the vocational courses in an institution, be given further training in their chosen trades by attendance at specialized schools, such as those of business, designing, dressmaking, and the like. A year or two of advanced instruction enables boys and girls to begin work

at much higher wages and to rise eventually to more responsible positions than otherwise would be possible.

One of the greatest educational opportunities of an institution lies in the fact that it controls the time of the children during the whole twenty-four hours. It is, therefore, able to center in the class room the children's experiences in the outside institutional life and to correlate them with the academic work. It can find material for arithmetical problems in the work of the various shops or in the construction of new buildings; for English composition, in the vegetables that the children grow in their gardens, or the fruits that they pick from the trees; for spelling, in the objects that they see and touch daily; for science, in the processes of nature that take place season after season in flower-beds, farm, and stream before their eyes.

This correlation of printed page and living fact which presents knowledge to children in terms of their own observation and experiences enables them to grasp more quickly the subjects taught and prepares them to solve the practical problems of life.

Unfortunately few institutions avail themselves of this unique opportunity. The work of the class room and of the shops is usually unconnected—the activities of the children in the cottages, the playground, and the farm, find little or no part in the formal instruction of the school. A marked exception to the general practice is found in the New York Orphan Asylum at Hastings-on-Hudson, which in a remarkable degree weaves the daily activities of the children into its educational plan.

Perhaps a special effort is required to break down the long standing barrier of the school wall. The writer suggests that a helpful way to establish the connection of activities inside and outside the class room would be for the teachers to conduct a few classes outdoors. Let the teacher of arithmetic lead her children, pad and pencil in hand, to the hayfield and ask them to estimate its acreage. Let the teacher of English take her class to the garden-side and bid them write a description of vegetables growing before them. Let the teacher of geography point out the different materials of which a cottage is built and tell from whence each comes. A few lessons of this kind would raze the obstructing wall and definitely fix the meaning of correlation in the minds of the teachers.

Every child should have an active part in the work of the institution. Such work need not have an educational or vocational content. A child is thereby enabled to stand in his normal family relationship, and in being taught to perform the simplest tasks efficiently and conscientiously he receives important moral training.

It should be fully recognized, however, that the amount of vocational training—training to equip pupils definitely to earn a living—in institutional work is very limited and is nil in many institutions. Doubtless if girls are to enter domestic service the performance of such household tasks as making beds, waiting on table, sweeping, and helping in the kitchen has some vocational value, the amount depending upon the extent of the experience and the branch of domestic service they expect to enter. But in large congregate institutions much of the work is done under conditions totally unlike those of a private home and therefore affords practically no vocational training; and where girls are kept at one particular task month after month, the work, far from being educative, becomes mere drudgery. The house-work can be made more truly educative by various means, such as small “unit kitchens.”

Whatever vocational training there is in institutional maintenance work can best be realized through a rotation of tasks. Boys and girls should pass from one task to another after an experience long enough to acquaint them thoroughly with its details. The main vocational instruction, however, must be given apart from the institution’s work and by competent teachers.

Reform schools for girls have demonstrated for a number of years the benefits of outdoor work for the immoral girl. For instance, Sleighton Farm, the Glen Mills School for Girls, gives to a large number of its girls open air employment through the care of the farm, gardens, barns, and live stock, and it has found that the girls have been rapidly built up in physique and morals.

Institutions for dependents have been slow to realize that if outdoor work is beneficial for immoral girls it is no less so for normal girls. A majority of institutions have restricted the vocational instruction of girls to indoor branches. Why should not a girl be taught to earn a living by growing roses, raising poultry, or gardening, as well as by cooking or sewing?

The day is rapidly approaching for institutions when the conventional curriculum for girls of dressmaking, millinery, cooking, sewing, and office work, will broaden to include wider opportunities. The advantages and suitableness to girls of many forms of outdoor employment forbid their lasting appropriation by the other sex. The country institution has a splendid opportunity for providing outdoor vocational courses. One reason for the present trend of city institutions out to the country is an increasing appreciation of the educational possibilities of the soil.

The chief danger for the institutional school is stagnation. Since the school is usually not connected with a city or a state system of education, its tendency is to remain aloof in its own little world and fail to keep pace with the best methods of teaching and administration.

Formerly grading of children in fundamental school subjects depended upon the individual judgment of the teacher, but now exact measurements are being devised for this purpose. Institutional schools will find the tests most valuable in comparing the work of their children with those in the average public school. The following standard tests and measuring scales are easy of application.

"Standard Practice Tests," in arithmetic, by S. A. Courtis, are intended to measure the achievement of children in the four fundamental operations with whole numbers.*

"A Measuring Scale for Ability in Spelling," by Dr. Leonard P. Ayres, is based on the spellings of 70,000 children in different cities. The 1,000 words on the scale are made up into spelling lists, together with the scores made by children in different grades throughout the country.†

"A Scale for Measuring the Quality of Handwriting of School Children," also by Dr. Ayres, is based on the writing of children from all parts of the country. Specimens of handwriting ranging from very poor to very good are reproduced, enabling one to determine by comparison the grade of quality of any given writing.‡

*Courtis, S. A.: *Standard Practice Tests*. Yonkers, World Book Co., 1915. Sample Set, 35 cents.

†Ayres, Leonard P.: *A Measuring Scale for Ability in Spelling*. New York, Division of Education of the Russell Sage Foundation, 1915. Monograph, 30 cents. Scale alone, 5 cents.

‡Ayres, Leonard P.: *A Scale for Measuring the Quality of Handwriting of School Children*. New York, Division of Education, 1912. Monograph, 5 cents. Scale alone, 5 cents.

Another way in which an institution can keep its school up-to-date is by availing itself of the educational facilities offered by many state boards of education and public libraries. For instance, in New York State private schools can borrow for the school year from the Educational Extension Division of the State Board of Education at Albany twenty-five selected books for \$2, and additional sets of twenty-five volumes for 50 cents each. Arrangements can often be made for a branch of a local public library to be opened in an institution, and libraries will sometimes lend photographs and stereopticon slides.

Many institutions would profit by arranging for a survey of their academic and vocational work by specialists. For little or no cost institutions can secure from a state or a city department of education, or from a university or college, the services of someone competent to give the trustees a reliable estimate of the academic and vocational curriculum, the quality of instruction, and the adequacy of the school plant with regard to its equipment and provisions for sanitation and safety. Often a survey is the means of indicating defects which can be remedied at a small or even no expense, but which have lowered the educational standard of the school.

The chief reason for the failure of many institutions to provide adequate educational training lies in the inefficiency of the teachers. Many institutions employ teachers who have had only an elementary education, no normal school training, and no teaching experience. Other institutions employ those with only a high school education. Since the teachers have no background of professional instruction, they rely upon their memories for teaching methods. These in many cases include teaching by rote, reciting in chorus, studying aloud, and appealing to the memory rather than to the intelligence. Modern education discarded these methods years ago.*

If lawyers, physicians, and ministers are obliged to spend several years in preliminary technical training before they are permitted to practice their professions, why should lower qualifications be accepted from teachers? Moreover, if preliminary training is desirable in public school teachers, is it less so in instructors of dependent children that in many cases have been retarded in mental

*McMurry, F. M.: *How to Study and Teaching How to Study*. New York, Houghton, Mifflin Co., 1909. \$1.25.

development? Institutional teachers should possess qualifications equivalent to those required for similar work by an efficient state board of education. Preferably they should have had normal training, or should hold state certificates entitling them to teach the branches for which they are engaged.

But institutions can not expect to secure high-grade teachers for low pay. The average salary paid in the public elementary schools of ten of the largest cities in the United States for one hundred and ninety-two days of actual teaching is \$960 a year; and for high school teachers about \$1,700 a year. Women vocational teachers receive \$1,000 to \$1,500, and men \$1,400 to \$1,800.

Salaries in the smaller cities and towns are somewhat lower. The report of the United States Commissioner of Education for 1915 gives the following figures:

TABLE 2.—COMPARISON OF TEACHERS' SALARIES IN DIFFERENT GROUPS OF CITIES

Population	Average salary paid teachers in	
	High schools	Elementary schools
More than 250,000	\$1,746	\$1,018
100,000 and less than 250,000	1,216	791
50,000 and less than 100,000	1,069	688
25,000 and less than 50,000	1,009	641
10,000 and less than 25,000	897	602
5,000 and less than 10,000	795	533

An institution can not expect to secure efficient elementary school teachers for less than \$40 to \$60 a month and "home." "Home" where an institutional teacher boards out costs today \$4 to \$5 a week in the country, \$5 to \$6 a week in a village, and \$7 to \$10 in a city.

No item of the institutional budget should be higher in proportion than that of teachers' salaries, for no expenditure will yield a greater return in benefit to the child.

Since the institutional school is ordinarily not in direct touch with a city or a state system of education, additional care must be taken

that the teachers are given every opportunity to progress in professional knowledge and efficiency. A live superintendent or principal can do many things to promote this end.

Opportunity should be given for teachers to visit other schools. They should be encouraged to attend teachers' institutes or conferences. Teachers' meetings in the institution should be conducted regularly, at which school problems, methods of instruction, and recent books on pedagogy can be discussed; or at which leaders in the educational world can be invited to speak. A well chosen library of the best pedagogical books should be available to teachers. Not least important, the salaries should be advanced regularly up to a fixed maximum, as length and efficiency of service warrant. Nothing deadens the ambition of a teacher more effectively than to know that no matter what the earnestness and quality of her work there is no prospect of a raise in wage.

EDUCATIONAL PROVISIONS OF TWENTY-SEVEN INSTITUTIONS

The writer recently solicited replies to the following questions from twenty-seven institutions located throughout the country:

Do any of your children attend the public schools? What grades?

What vocational subjects do you teach your boys? Your girls?

With reference to your teachers what do you require in the way of education? Experience?

The replies showed the interesting facts that of the twenty-seven institutions, six maintain schools for all their children; three send out all their children to the public schools; three send out all except the kindergarten children; four have the public schools send teachers to the institutions; and the remaining twelve send out part of their children to the public schools, six of them to the high school only. Twenty-one institutions out of the twenty-seven use the public school system for some or all of their children.

The leading vocational subjects for the boys in these institutions are carpentry, farming, and gardening. In the replies carpentry, farming, and gardening are each mentioned eight times. The leading vocational subjects for the girls are domestic science (or cooking), sewing, housework, dressmaking, and stenography.

TABLE 3.—EDUCATIONAL PROVISIONS OF TWENTY-SEVEN INSTITUTIONS

Institution	Qualifications of teachers in institutions as to		Grades attended		Vocational subjects taught in institutions to	
	Education	Experience	In institution schools	In public schools outside	Boys	Girls
GROUP I. ALL CHILDREN ATTENDING PRIVATE SCHOOLS IN INSTITUTION ILLINOIS						
Glenwood Manual Training School	"College course or normal training"	"Preference to those with experience, preferably in rural and small district schools"	All	None	"General farming, animal husbandry, dairying, gardening, forestry, horticulture, machine work, electrical work, carpentry, laundry work, printing, shoe repairing, clerical, cooking, baking, plumbing"	"We have no girls"
MAINE						
Hinckley						
2 Good Will Farm	"Of 13 teachers, five are college graduates, eight are normal graduates"	"Normal graduates or teachers of several years' experience"	All	None	"Because of our general industrial system have not at present vocational subjects taught in boys' school"	"In the girls' school we have two teachers in domestic science"
MICHIGAN						
Coldwater						
3 Michigan State Public School	"Normal, college, or university graduate"	"Not required"	All	None	"Manual training"	"Domestic science"
NEW YORK						
Pleasantville						
4 Hebrew Sheltering Guardian Orphan Asylum	"Graduation from college teacher, from a normal or training school for elementary school"	"Preferred, but not required"	All	None	"Shorthand, typewriting and bookkeeping; machine shop practice; telegraphy, wireless telegraphy and telephony; mechanical drawing"	"Shorthand, typewriting and bookkeeping; dress-making; millinery; domestic and household arts and science; telegraphy, wireless telegraphy and telephony; dental nursing"

NORTH CAROLINA

5 Oxford Orphan Asylum . .

WISCONSIN

6 State Public School . . .

GROUP II. ALL CHILDREN ATTENDING PUBLIC SCHOOLS

A. OUTSIDE INSTITUTE MICHIGAN

7 Protestant Orphan Asylum

NEW YORK

8 Brooklyn Hebrew Orphan
Asylum

PENNSYLVANIA

9 Philadelphia
Jewish Foster Home and
Orphan Asylum

B. IN INSTITUTE--ALL GRADES

10 Terre Haute
Rose Orphan Home . . .

<p>"We require college graduates if obtainable"</p>	<p>"Several years' experience preferable"</p>	<p>All</p>	<p>None</p>	<p>"Printing, shoe repairing, farming, dairy work, bakery, wood working, telegraphy, typewriting"</p>	<p>"Domestic science, telegraphy, typewriting, laundry work, sewing, household work"</p>
<p>"Normal or college. Must be able to pass a civil service examination"</p>	<p>"None"</p>	<p>All</p>	<p>None</p>	<p>"Manual training, farm work"</p>	<p>"Domestic science"</p>
<p>"We have no institutional teachers"</p>	<p>..</p>	<p>None</p>	<p>"Kindergarten to eighth"</p>	<p>"Handicraft"</p>	<p>"Cooking, sewing, housework"</p>
<p>"At least high school, preferably college; special training as at School of Philanthropy. Virtually all college graduates"</p>	<p>..</p>	<p>None</p>	<p>"Elementary, grammar, high, vocational, technical, musical, art, college. Some 16 schools in Brooklyn and Manhattan"</p>	<p>"After school hours, in more or less recreational manner, carpentry, mechanical drawing, printing, stenography and typewriting, bookkeeping, music"</p>	<p>"Domestic science, domestic art, embroidery, dressmaking, stenography and typewriting, bookkeeping, music"</p>
<p>..</p>	<p>..</p>	<p>None</p>	<p>"1A grade through 8B grade. Graduates of public schools are given opportunity to attend high school"</p>	<p>"Wood working and kindred manual training subjects, stenography, typewriting"</p>	<p>"Millinery, dressmaking, domestic science, general household management, stenography, typewriting"</p>
<p>City requirements. "We pay small bonus to secure best qualified instructors in the city for the grades taught"</p>	<p>..</p>	<p>All</p>	<p>None</p>	<p>Same as in city schools</p>	<p>Same as in city schools</p>

TABLE 3.—EDUCATIONAL PROVISIONS OF TWENTY-SEVEN INSTITUTIONS—Continued

Institution	Qualifications of teachers in institutions as to		Grades attended		Vocational subjects taught in institutions to	
	Education	Experience	In institution schools	In public schools outside	Boys	Girls
C. IN INSTITUTION—LOWER GRADES NEW YORK						
11 Buffalo Orphan Asylum	"Teachers are required to measure up with any public school teachers in the city"	..	Through sixth	Above sixth	..	"Vocational sewing"
New York City	City requirements	..	Up to eighth	"Two children in eighth"	"Carpentry, gardening, sewing, poultry culture, cooking"	"Cooking, sewing, fancy work, general household duties"
12 Colored Orphan Asylum	City requirements	..	Up to fifth	"Fifth, sixth, seventh, eighth, high school"	"Manual training, instruction in public school is put into practice at home, in carpentering and chair-caning; also farming, gardening, work on grounds"	"Millinery, dressmaking, sewing, weaving, cooking"
Rochester						
13 Rochester Orphan Asylum	City requirements	..	Private kindergarten. First and second (city teachers)	Above third. Three children in high school	"Carpentry"	"Dressmaking, sewing, housework"
GROUP III. CHILDREN ATTENDING BOTH PRIVATE SCHOOLS IN INSTITUTIONS AND PUBLIC SCHOOLS WITHIN OR WITHOUT INSTITUTIONS CONNECTICUT						
New Haven	City requirements for first and second grade	..	Kindergarten	"All except kindergarten. One girl in high school"	..	"Domestic science"
14 New Haven Orphan Asylum	"Must be trained in kindergarten work"	"Must have it"				
ILLINOIS						
Chicago						
15 Chicago Orphan Asylum						

Lincoln 16	Odd Fellows' Orphans' Home of Illinois	"If possible two years' successful teaching"	Up to high school	"High school in city"	"Manual training, farming"	"Domestic science"
Normal 17	Illinois Soldiers' Orphans' Home	"Teachers are se- cured through State Civil Service Commission"	..	Up to high school	"High school"	"Manual training, farm- ing"	"Domestic science"
KANSAS Atchison 18	State Orphans' Home . .	"High school or nor- mal school"	"One year"	Up to high school	"One in high school"	"Manual training"	..
MINNESOTA Minneapolis 19	Washburn Memorial Orphan Asylum	"Kindergarten teacher must have certificate showing ability to do what is required"	..	Kindergarten	"All above kin- dergarten, in- cluding high school when ready to enter while living here"	"Sloyd, garden and field work"	"Housework, needlework, cooking"
Owatonna 20	Minnesota State Public School	"High school and normal training at least"	"One year of suc- cessful teaching or normal practice teaching"	Up to eighth	"Eighth and high school"	"Carpentry, farming, gar- dening, dairying, me- chanical, and electrical engineering"	"Cooking, sewing, general housekeeping, office work, nursing, library work"
NEW JERSEY Newark 21	Protestant Foster Home .	"Principal required to have normal training or first grade certificate"	"All assistants have either experience or second grade certificates"	Up to eighth	"Eight A"	"Public school vocational training"	"Sewing, cooking, laundry work, etc."
NEW YORK Albany 22	Albany Orphan Asylum .	"Normal or college"	"At least one year"	Up to seventh	"Seventh, high eighth, high school"	"Carpentry, cooking, elec- tric wiring, laundry work"	"Cooking, sewing, laundry work"
Dobbs Ferry 23	St. Christopher's Home	"Normal training de- sired and usually required"	"At least experience with practice classes"	Up to seventh	"Seventh, high eighth, high school"	"Carpentry, chair-caning, vegetable gardening"	"Domestic science, domes- tic art, including dress- making"
Haastings-on-Hudson 24	New York Orphanage . .	"Normal school or Teachers' College graduation"	..	Up to high school	"Pupils enter- ing high school attend the public school"	"Manual training, garden- ing, and all the ordinary home-making industries —cooking, darning, of housekeeping, care of plants and shrubbery, etc."	"Cooking, dressmaking, dining room service, chamber-maid service, and all other household duties and responsibili- ties"

TABLE 3.—EDUCATIONAL PROVISIONS OF TWENTY-SEVEN INSTITUTIONS—*Concluded*

Institution	Qualifications of teachers in institutions as to		Grades attended		Vocational subjects taught in institutions to	
	Education	Experience	In institution schools	In public schools outside	Boys	Girls
OHIO Cleveland Protestant Orphan Asylum	"We have two kindergarten teachers who are seniors in the Cleveland Kindergarten College."	..	Kindergarten	"Elementary grades only. We do not keep children for any length of time"	..	"Domestic science"
Cleveland Jewish Orphan Asylum . .	"High school and normal school"	"Five years or more"	Up to high school	"36 in high school"	"Pretty thorough training in printing, carpentry, woodturning, foundry work"	"Sewing, embroidery, housework, stenography, typewriting"
Tiffin 27 National Orphans' Home .	"College graduate or normal school or its equivalent; that is, high school graduate with certificate attending summer school"	"Not necessary but preferred"	Up to high school	"High school. All who finish in our common school and who desire to enter some profession"	"Baking, shoe repairing, farming, gardening, wood working, stationary engineering, greenhouse experience, laundry, bookkeeping, stenography, smiling, canning, dairy"	"Sewing, cooking, dress-making, nursing, stenography, housework"

Domestic science (or cooking) is named eighteen times, sewing ten times, housework nine times, dressmaking eight times, and stenography six times.

The qualifications of teachers required in the twenty institutional schools are varied. Four require a normal school training, one that the school principal be normal trained, and eight that the teachers be graduates either of a normal school or college. Seven institutions insist upon previous teaching experience, the length varying all the way from one to five years, and four others give the preference to teachers with experience.

The statements in the table are, for the most part, quoted verbatim from the replies. It should be remembered that some of the institutions send out their children at the age of fourteen or fifteen, or place them in family homes even earlier, and for this reason do not provide a high school training.

PHYSICAL EQUIPMENT AND SANITATION

Public school buildings of today are far different from those of but a few years ago. Improvements in construction and equipment tending to increase the education, health, and pleasure of children have been introduced one by one. Among these improvements are: fireproof construction, large auditoriums, stages specially equipped with footlights and scenery; rooms adapted for special classes; adjustable desks and seats; and special equipment for playgrounds and gymnasiums, including showers and pool.

Emphasis may be placed here upon a few important points that are often disregarded in institutional schools.

1. Rooms. Each room should provide at least fifteen square feet of floor space and two hundred cubic feet of air space for every pupil.

2. Children per teacher. Forty is the largest number of pupils one teacher should instruct.

3. Desks and seats. Each child should have a separate desk. Desks and seats should be adjustable or there should be a variety of sizes. The seats should be so adjusted that the feet of the children rest squarely on the floor, and that the front edge of the seat extends about one and a half or two inches under the desk. The

desks should have a dull finish so as not to reflect a glare of light into the eyes of the children.

4. Blackboards. Blackboards should be from three and a half to five feet high, and the bottom should be from twenty to thirty inches from the floor, depending upon the height of the pupils. The most satisfactory blackboards are of slate.

5. Lighting. Light should enter from the left and rear only. The window space should be equal to at least one-fifth of the floor space.

The upper one-fourth of a window furnishes one-third of the effective light coming from the entire window. To obtain the light from the upper window when it is necessary to shade the lower, a roller shade raisable from the bottom can be used, or double shades—one of which is raised from the bottom.

6. Ventilation. Every child should have a plentiful supply of moving moist air. A direct draft from open windows upon the children should be prevented, as by the use of window-boards.

7. Heating. The temperature of the class rooms should be maintained at 68° F. Stoves, where used, should be jacketed.

8. Drinking water. Individual drinking cups or sanitary fountains should be used exclusively.

9. Soap and towels. Individual soap cakes or glass retainers with liquid soap, and individual towels, should be used exclusively.

10. Fire protection. The following safeguards against fire and panic apply not only to the school quarters but also to the rest of the institution.

Stairways should be of fireproof material. A hand rail should be on each side of the stairways, and if the stairways are very wide a hand rail should run down the center.

All buildings of more than one story should have outside metal or stone fire-escapes. In winter the fire-escapes should be kept free from snow and ice.

All doors should open outward. Each room on the second floor or above should have a door opening out onto a fire-escape. When the new panic bolts are used a door can be opened only from the inside, and responds to the slightest pressure upon the bolt. The ceiling in the room containing the heating plant should be covered with fireproof material. Waste material should not be permitted

to collect in basement or attic. Closets, wherever under stairs, should be kept empty and nailed up.

Fire apparatus should include hose and extinguishers, conveniently available on each floor. Extinguishers should be recharged every three months, and hose should be tested at least once a year. All members of the staff should be instructed in the use of the apparatus.

Frequent fire drills for adults and children should be held, including occasional drills at night. At least once a week the children should use the fire-escapes so as to become accustomed to them.

An institution should inform itself regarding local fire ordinances and should comply with them strictly. Once a year it should invite a careful inspection of its plant by competent officials of a fire department.

Many institutions are forced to use for school purposes buildings or rooms not so intended originally. For accepted standards which can be applied to school buildings, the accompanying diagram taken from "School Buildings and Equipment," by Leonard P. and May Ayres, will be most helpful.*

*Ayres, Leonard P. and May: School Buildings and Equipment, p. 54. New York, Division of Education of the Russell Sage Foundation, 1915. 25 cents.

SOME STANDARDS USED IN JUDGING SCHOOL BUILDINGS

	BAD	POOR	FAIR	GOOD	VERY GOOD
SQUARE FEET OF FLOOR SPACE FOR EACH CHILD	12	14	16	18	
CUBIC FEET OF AIR SPACE FOR EACH CHILD	170	190	210	230	
PER CENT WINDOW AREA IS OF FLOOR AREA	10	15	20	25	
SQUARE FEET OF PLAYGROUND AREA FOR EACH CHILD	20	35	50	65	
NUMBER OF BOYS PER URINAL	55	45	35	25	
NUMBER OF BOYS PER TOILET SEAT	50	40	30	20	
NUMBER OF GIRLS PER TOILET SEAT	30	24	18	12	
CHILDREN PER DRINKING FOUNTAIN	130	100	70	40	

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