

## WEAVING IN THE ELEMENTARY SCHOOL

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It has been truly said there is nothing new under the sun. As teachers and educators we plan year by year new courses of study and gather data from every source, but the most we have done has been to make an application of the principles which Froebel taught to the world before we were born. Broadly considered, standards in education at the present time are practically the same.

We agree that the development of the individual parallels that of the race; that the child is a distinct entity and not in any sense a diminutive adult; we translate subject-matter into terms of value, and in attributing to studies their relative worths, we regard the present as well as the future of the individual, or rather, we consider the present and hence the future of the individual. Method too is a determining element in the value of a study, for the worth of any instruction depends largely upon its manner of presentation. We note the dual nature of the educational problem; sociologically, the relation of the individual to society, and psychologically, the relation of the individual to himself. Notwithstanding all these signboards along the pedagogical way to avert a marked deviation from the true course, every traveler in a sense makes his own pathway, showing footprints distinct and individual. Each year, each section of country, and each pupil present problems which demand of the teacher careful consideration and tactful planning. The unquestioning acceptance of past standards do not lend themselves to open-mindedness and individual initiative. No one has entirely reared the superstructure of education needed today, so even the humble worker in a limited field can make observations which may furnish a contribution to the general good.

It is in this spirit that I enter a plea for handwork in the elementary school which will be vital and far reaching as an

ethical influence. Generally speaking, one need no longer question the value of manual work or its claim to a stimulation of the mental faculties. Of course, I mean manual exercises which are not misfits, but logically based upon principles which make them of the highest possible value.

The one exercise however which seems to have been assigned a lower place than it merits in the scale of relative values is weaving. Of all the occupations for little fingers, with the exception of clay-modeling, there is none it seems to me which appeals to the child's interest and develops sustained application more fully than simple textile weaving. We recognize its value as a social occupation, we know that racial development has been along this line, that it is the earliest industrial art practiced by primitive peoples, and that pottery and textile remains are the books which reveal to us the life-history of a dim past. We know also that well-chosen exercises in weaving afford an opportunity for the child's initiative, choice of material, taste in color, originality in pattern; in other words, that they offer an opportunity for real development to the maker, through self-expression, after having acquired a small degree of skill of hand. Further, that textile materials and processes properly handled bring the user into contact with the industrial and geographical sources from which they come, giving much information in regard to the origin and meaning of the things made and the materials used. So the exercises given in the schoolroom by an alert teacher mean more than the making of a series of articles. An important part of the training lies in thus bringing before the child concretely much of the number-work, history, geography, and literature, which it interprets and makes applicable to the life of today.

It is interesting to note that teachers in various parts of our country, working independently of each other, have come to practically the same conclusion, namely, that clay-modeling and textile weaving furnish the basis for a systematic course in industrial work that shall be a means for helping the children to interpret the steps of human progress and that shall at the same time provide means of gaining an intellectual and practical control as progressive problems are met and solved. When one seeks

some tangible evidence of this foundation, however, the results are not always encouraging. As I have already said weaving seems to have fallen low in the scale of educational values, much of the work being trivial in character and lacking in gradation and variation. Some of the reasons for this are obvious. The large number of pupils which the grade teacher has under her supervision, the difficulty of obtaining suitable materials for the work, the demand made upon the public-school treasury for this purpose, the slowness of the process, the articles made usually requiring time, patience, and a degree of skill not possessed by the average child, all have contributed to this result.

Some of the difficulty lies in our trying to imitate too closely the best efforts of primitive peoples. Rugs of overfine material and belts of rather intricate pattern are attempted in the second grade as well as in the fourth or the fifth grade. Preceding such work should come simpler exercises of course, pliable, inexpensive material leading up to the finer product. Under right laws should we not have a carefully planned gradation from coarse to finer work, the objects made leading up through the primitive to those suitable for school and home use? In the lower grades the textile arts are and should be largely social occupations. The things made should have a definite use and fill an immediate need. But is this a reason why overfine and rigid material should be used? Can we not get something better than paper, reed, splint, and raffia for developing little fingers and little lives? Is the weaving-needle with a spring to clasp flimsy paper strips a better tool than the fingers themselves in the kindergarten and the first grades?

One condition of socialized work is that it shall benefit not only the community but the worker himself. As a social organizer it is primarily the function of the teacher so to plan community work that it will be of the greatest value to the individual child. *What* to do, *how* to do it, and *what kind* of material to use have become the practical problem of today. For little people we must utilize materials soft and pliable, and the first tools should be the fingers. The beginning and the ending of woven pieces, even the simplest, present difficulties to the aver-

age child. So it seems to me as a forerunner the more plastic material, clay, should be used freely in the kindergarten and first grade. The weaving of these grades should be crude, coarse, and free in character. The clothing processes of the cave men, of the Lake-dwellers of Switzerland, of the North American Indian, of the Eskimo, of Hiawatha and Robinson Crusoe, the furnishing of a playhouse and the dressing of dolls, all contribute subject-matter for crude primary work.

If the little people are in localities where they can gather neighborhood grasses, twigs, and husks, and utilize them in their own way, the lessons will be appreciably richer. Familiarity with the sheep, the cocoon, the cotton plant, and flax, with the kind of weaving shown in birds' nests and in the lace tree, with the fine threads spun by spiders and caterpillars will lay a foundation for later work in the higher grades. There the processes of spinning, carding, and weaving, properly understood, lead to an intelligent understanding of the work of the modern machine and some introduction to the great social problems of today—child labor, the sweatshop system, home economics, industrial betterment, and social ethics.

In the schools of Rochester last year an attempt was made to introduce a systematized course of weaving based on educational principles. As these processes stand in close relation to the textile arts, the history of all mankind being implicated with the evolution of flax, wool, and cotton fibers into cloth, the weaving was made a part of the domestic art department. For convenience, however, it is taught to the primary-grade teachers by the special teachers of the manual-training department. The course begins with simple exercises for the kindergarten and the first grade, largely co-operative and closely related to the classwork. In the two lower grades the looms are furnished; they are also shifted from class to class, thus reducing expenditure somewhat. In the third and the fourth grades the pupils construct their own looms and also a crude spindle and whorl. Original patterns and color arrangement are also attempted. The warping is a steady gradation from simple to more difficult, while the spacing is based on the number-work of the respective grades

—one inch, one-half inch, one-quarter inch, etc. There is also oral-language work in connection with all courses. Practice is not confined to a few skilful hand-workers. Each pupil is given an opportunity to make some article of inexpensive material, while those who show skill are allowed to repeat the exercise using better material. By this method expense has been minimized. Waste and labor have also been reduced appreciably by putting into the hands of the grade teacher definite directions for the care, cutting, and distribution of materials. The city of Rochester has a population of two hundred and eighty thousand. Last year the expense of weaving-materials for all the schools amounted to less than five hundred dollars.

No attempt has been made to cover in one year the entire course of study, only one or two exercises, meeting present needs, being attempted in any class. If the child has responded to the purpose of his work, gaining in sympathy, self-control, and responsibility, the making of one object means more than a whole series wrought without this human insight. Social occupations along textile lines in the primary grades have led to special work of an excellent character in some of the grammar grades. Articles really worth while have been made for the home with a minimum expenditure of time and money. So the results are by no means discouraging though the crowded curriculum last year gave opportunity for nothing more than a mere beginning. Even in its incompleteness, the course has been adopted by the Mechanics' Institute of Rochester as a part of the training given students in preparation for public-school service.

The work done in the schools last year is as follows:

*First grade.*—Book bag (based on the Lake-dweller's fishing-net—an exercise in tying, knotting, and interlacing; looms furnished).

*Second grade.*—Doll's hammock; doll's muff and tippet (exercises in looping, braiding, and weaving; looms furnished).

*Third grade.*—Doll's hood or toboggan (measurements of dolls' heads taken and suitable looms constructed); small bath rug.

*Fourth grade.*—Bath slipper (loom made by child and con-

structed according to individual foot measurement) ; doll's Tam O'Shanter (based on measurement of doll's head).

Large co-operative pieces along the same lines were made in some classes, and were by no means a tedious occupation.

The complete outline of the course planned, a copy of which is placed in the hands of every grade teacher, is as follows:

#### KINDERGARTEN

*Materials.*—Swamp grasses, flat reed, husks, rags, Holland, braid, felt, etc.

*Applications.*—Rugs, matting, mats, porch curtain, etc. (For this class warp and weft should be free, not continuous.)

*Language-work.*—Talks on the sheep and wool; on the use of the loom and weaving.

#### FIRST GRADE

*Materials.*—Kindergarten materials, roving, coarse yarn, etc.

*Applications.*—Repeat kindergarten exercises, fishing-nets, book bag, braided rag mat woven in circular form. (In this grade, use a continuous warp and a free weft.)

*Language-work.*—Talks on wool (simple story of raw material found in Poullson's *Child's World*, p. 413) ; talks on wool-washing and dyeing in simple form. Explain the meaning of warp and weft.

#### SECOND GRADE

*Materials.*—Roving, woolen and cotton yarns, twine, rags.

*Applications.*—Repeat kindergarten exercises, fishing-nets, and history, weave dollhouse furnishings, mattings, nets, rags, curtains, bed spreads, table covers, table mats, also doll's muff and tippet. (In this grade use a continuous warp and weft.)

*Language-work.*—Talks on cotton and hemp; stories of raw material in Poullson's *Child's World*, p. 421. Explain the meaning of warp, woof, and selvedge.

#### THIRD GRADE

*Materials.*—Same as for previous grades.

*Applications.*—Mat made of rags, braided and sewed, Indian belt, marble bag, school bag, bean bag, coarse cushion cover, table

cover, doll's clothes, hood or toboggan based on head measurements. (Construct a spindle and whorl, also a simple loom.)

*Design.*—Plan a school bag with colored borders.

*Language-work.*—Talks on flax (*Child's World*, p. 426); talks on carding and spinning.

#### FOURTH GRADE

*Materials.*—Any available materials.

*Applications.*—Purse for small change, handkerchief bag, protectors for large bags, baby socks, bed shoes, tea cozy, child's Tam O'Shanter or hood, rug, porch cushion, etc., set of table mats, cord or raffia. (Construct loom; use heddle or shed stick.)

*Design.*—Make a colored design of some article to be woven.

*Language-work.*—Talks on silk (worm, cocoon, raw material, and manufactured articles. Keep these talks simple).

#### GRADES V, VI, VII, VIII; OPTIONAL WORK

*Exercises.*—Original work, study of tapestries, Indian rugs, etc.

*Applications.*—Textile furnishings for the home.

*Suggestions.*—Hammocks, rugs, covers for chairs, table, couch or pillow draperies, sets of table mats, woven borders for decorative purposes. Visit woolen mills if possible. (Navajo loom-principles of construction.)

In conclusion let me say that an old story has been retold, but I hope it will come with a new meaning to my fellow-workers. St. Paul's admonition: "Prove all things, hold fast to that which is good," applies here. The educative process is not yet complete. Someone has compared it to a circle not entirely closed. We are giving the child a large opportunity through subject-matter and method to derive ideas from his environment. If we give him an equal opportunity to use these new impulses in uplifting his environment, the circle will be nearer completion. It is no light task to train for a sane citizenship. This is the ultimate aim of all forms of art and handwork that have found a place in the school curriculum.