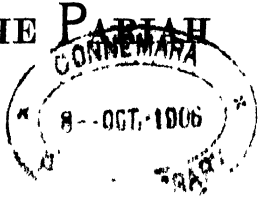
How We Teach

The Pariah



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HOW WE TEACH THE PARIAH.

At the Government Examinations held in 1901—the last that are to be held as they have since been abolished along with the old and pernicious Results Grant-in-Aid system—95 per cent of the pupils in the Olcott Panchama Free Schools passed, while in one of the schools all the pupils passed. To this it should be added that they passed in all compulsory subjects and, in addition, in all the optional subjects in which the Sub-Assistant Inspectors had authority to examine them.

These were the regular Government Examinations for all Upper Primary Schools in Madras Presidency, and the average number of pupils passed in all the schools in the Presidency, high caste and backward classes together, was 75 per cent.

That our schools should thus have exceeded so greatly the average results of all the schools in the Presidency in all the conventional

subjects commonly taught, and at the same time have carried to success the special subjects which have here been introduced, perhaps for the first time in India, has brought us many inquiries as to the nature of the work and methods employed to develop such a standard of efficiency in pupils in themselves as little promising as those which our Panchama Free Schools recruit from one of the most backward classes in all India

A morning spent in the schools themselves is the most satisfactory demonstration of the work there being done and of its educational value. Such description, however, as can be given in a short pamphlet may be of interest and value to those who are unable to make the personal visit, for which, however, an invitation is extended to all who are interested in Primary education.

As they stand to-day the Olcott Panchama Free Schools represent only a stage of growth and development which had its beginning in a particular '*cause* and which has a definite *effect* as an aim to be attained. The first point to be settled, after one has decided to open a school, is the nature of the pupils to

be educated therein. It is an hypothesis of scientists who have investigated the subject, that the inherited physical organism of the child limits and prescribes his possibilities; that each nerve fibre and convolution of the brain helps to fix this boundary of mental capacity If from a biological standpoint, then, we are justified in concluding that the possibilities and the limitations in the mental training of the child are largely, if not almost entirely, a matter of the child's ancestry; that an organism which is the product of untold ages of evolution of the more purely physical, will inherit body rather than brain, or, let us say, body with brain in an embryonic stage, which will require many generations of progessively ascending attempts at growth and development before it embodies a latent capacity for sustained mental power, or even for any mental vigour beyond the simple and rudimentary; if this be so, then no system of education destined to fit the future rulers and citizens of a country adequately to play their destined part on the stage of life, can afford to overlook its fundamental significance.

In America the question of an Educational

Code is of necessity a most important and difficult one, since the pupils in a single school may, and most often do, range from the pauper and the lowest immigrant class (compelled to attend by reason of stringent Compulsory Education laws), to the child destined, perchance, to inherit wealth sufficient to cancel the National Debt In democratic America children are thus lumped together regardless of social status in the free Public Schools, there to be coined and stamped each according to innate powers of mental inheritance. In England the educational problem is not, in this respect, so difficult, for we there see a clearly defined line drawn between the educational policy for the upper and for the lower social levels.

In India it would seem as if the existing strongly marked divisions of labour and restrictions of caste should simplify the Educational Code problems to a degree impossible in any Western country. As there are Legal Codes framed to meet the peculiarities and problems of the different races, so should there be separate Educational Codes for Hindus, Mahomedans, Females, Panchamas,

etc , arranged with curricula adapted to meet the most probable life conditions and experiences stretching beyond the school horizon. Another very important consideration, too, in the framing of educational courses of study is the average number of years which the average number of children belonging to the different races or castes will probably be able to spend in school

The question, then, of what course of study to introduce into our Panchama Schools resolved itself naturally into the question of the future employments open to our pupils and the probable length of time they could devote to school attendance Enquiry has shown that the majority of pupils who have passed out of the Olcott Panchama Free Schools since 1894, have obtained employment under Europeans, as domestic servants, etc. ; while even the minority are engaged in work in which they will be much more effective and so more capable of supporting themselves and those dependant upon them, if given just that kind of an education which is, at the same time, best adapted for the majority of our pupils.

The Madras Educational Code of the past, for Aided schools, has been a "blanket" Code, in that each and every school receiving grant-in-aid must, whether for "high caste" children or for those of the most "backward classes", conform to the same generally outlined course of study, regardless alike of the inherited capacity of the children to be educated and of the number of years which they will probably be able to devote to school life Although the Olcott Panchama Free Schools followed the Code rules strictly, and the pupils were examined in the required vernacular work, yet the work accomplished by the schools was and is not confined to the prescribed course. The fact is that the schools were neither examined in, nor did they receive grant recognition for, work that is of far more practical worth to the child, to say nothing of its importance from the standpoint of real education

With the new "Grant-in-Aid Code," which Dr. Bourne has just issued, all this is radically changed for the better. The recognition therein, under the heads of "Elementary Schools" and "Secondary Schools," of the very different needs of two completely

different classes of pupils—that is, those whose education will probably of necessity have to stop in the Elementary grades and those who may be expected to carry it farther —shows that our Director of Public Instruction has recognised this inconsistency in the Madras Educational Code as he inherited it, and of which I complained in the first edition of this little pamphlet In the deep consideration which has been given to this fundamental point, as shown by the provisions of the new Grant-in-Aid Code, a very great service has been rendered to Education in Madras.

As to the details of method and work in our Panchama Schools, since so few European employers speak the native vernacular, it is almost if not absolutely essential for their servants to have a working vocabulary of English In view of the child's own future necessities, then, it becomes a valuable and a practical kindness to teach him the English tongue. The Educational Code has, in the past, restricted Primary Schools to beginning the study of English with the Third Standard. This rule would completely shut out the majority of Panchamas, since the majority

leave school before completing that Standard. Another objection to this Code rule was that, as the pupils grow older, it becomes more difficult for them to catch and to imitate and so, properly to pronounce the sounds of a language which differs in every respect so fundamentally from their own Experiments in our schools in beginning the study of English simultaneously, with pupils in each of the four Standards, has convinced us of the advisability of commencing English instruction with the Infant Standard The younger the child, the more naturally and easily and accurately will he grasp whatever sounds he may hear about him, and so be able spontaneously to imitate them All that the majority of young children know of their own vernacular they have acquired by self-effort to understand what is being spoken around them, and by the desire to communicate their thoughts and necessities to others. No system of mnemonics has been used to instruct, say, a four-year-old, how to speak such words as he can even at that tender age ; nor does the little one know that his words are a combination of letters, each representing

a different sound or tone. If, therefore, the natural conversational method be employed in instructing young pupils, that is, if each action and each object be associated with the spoken sound, as well as with the written and, too, picture-symbol which represent such action or object, they will readily learn to converse easily in a language, even as difficult for them as one would expect English to be, and this too, almost without conscious effort. It is for these reasons that instruction in English is begun in the Infant Standard in our Panchama schools, and is continued throughout all the higher Standards Indeed, the English recitations are among the most attractive features of the schools, and are the most difficult adequately to describe

It would be almost as sensible to attempt to train children to perform acrobatic feats before they had gained sufficient muscular control to stand alone or to guide their own steps to some objective point, as it is to commence the education of infant pupils by training them to make letters and figures. Take the Tamil alphabet for illustration. Each letter is composed either of straight lines at

various angles or of spirals and curves, or else it is a combination of lines with these parts of circles. We are all aware that to draw either straight lines or spirals or circles requires considerable muscular control, as well as knowledge of form, to say nothing of an eye-training sufficient to observe inaccuracies of outline and proportion No child should be allowed to use either slate or book until he has undergone a preliminary training, first of the fundamental and then of the accessory muscles.

To this end we, in our schools, begin in the lowest Standard—which we call the Kindergarten Standard, it leading into the Infant Standard—with only —

Chalk Drill—at the blackboard
Clay Modelling
Leaf Work
Games and Songs
Conversation and Questions.

CHALK DRILL In each of our schools we have, as far as was possible, converted *all* the walls into blackboards, to a height of 5 or 6 feet from the floor. This gives ample space for an entire class at the blackboards at one time, while the actual cost to the

school is hardly in excess of that of the usual wooden blackboards for use only by the teachers.

I have so frequently been asked just how the walls are prepared for use as blackboards, that I will give a detailed description of the process here, as nearly as it could be extracted from the workmen who have done the actual work for us—for all who have had to do with the native *maistries* know that they are much better at doing the work itself than they are at describing their process accurately.

For a new wall, the usual two coatings of chunam plastering are followed by two further coatings and two rubbings, as follows —

1st—Mortar Plaster in the usual proportions of about chunam, 1 to sand, 3

2nd—Mortar Plaster in the usual proportions of about chunam, 2 to sand, 1

3rd—A wash of "mutton soup" (heads and feet of sheep, boiled in water) This is what the native *maistries* say, though we should prefer some other suitable "sizing!"

4th—Cocoanut *shells* burnt black and finely powdered, mixed with water into a fairly thick mixture (*lamp black* added to this improves the finish of the walls), applied to the walls and at once thoroughly rubbed with a smooth stone until dry.

5th—Cocoanut meat *itself* burnt black and dry-rubbed over the wall If dipped (dry) into lamp black a better result may be secured

6th—Rubbing the walls, first with a cloth and then with the hand, to give a polish

The wall should be left thoroughly to dry after each process

Almost any walls, already built, including mud walls, may be turned into blackboards by first filling up cracks and rubbing smooth, and then applying the 3rd, 4th, 5th and 6th processes as above

In their Chalk Drill, at the blackboards, it is very important that the pupils should form correct habits of work from the very beginning. They should never be allowed to erase parts of, or patch out, their work, we do not waste time erasing and altering and patching each letter of the alphabet that we are writing, but with a single stroke we form the letter from start to finish. So with the pupils, if they would correct a defect in an outline or letter or figure they have drawn, it should be done solely by retracing the entire outline, from start to finish.

The first exercises for Chalk Drill are merely the fundamentals of written language; by which I mean the fundamental lines and curves which are the basis of all letter and

figure formation, as well as of what is usually included under the term "drawing."

The pupils should stand with head and body erect, making all the movements solely with the arm and the hand The chalk should be in lumps of a size easily grasped by the small hands

If the pupils, then, are not led into the pernicious habit of erasing and patching their work, but from the start are trained to try to *think*—which really means to *visualize*—straight lines and curves and to express this by drawing, as nearly as they can, perfect lines and perfect circles with a single stroke of the chalk without alteration, they will have commenced to form the automatic muscular habit which will enable them to draw the lines, curves, spirals of any alphabet, flower, insect, or other object, with spontaneous ease.

The training in drawing that is at present given at the School of Arts and at the several Government Teachers' Training Schools with which I am familiar, is absolutely unsuited for Primary pupils. I have tested several advanced students of the School of Arts—who had spent eight years there as pupils—hoping

to find a teacher suitable to teach the teachers in our Panchama Schools, but had to dispense with them at once to prevent our teachers from forming pernicious habits of work. No School of Arts student that I have yet found was able to draw free hand, or without guiding lines, either a fairly straight line, or circle, or spiral. This, many of our Panchama children can do after a few weeks of Chalk Drill.

Drawing should be regarded as a distinct mode of expressing thought, and, as such, should find its place in every course of study. It is not finished pictures or faultless drawing that should be either expected or desired from infant pupils. From the first, children should begin to express their thoughts with chalk, and this as freely as they do with words and with actions. Each school room should be supplied with an abundance of growing plants, shells, discarded birds' nests and other objects of nature which are to be had in every locality for the mere trouble of collecting and caring for them. From such objects pupils can be taught to distinguish balance, proportion, grace, and beauty of form and colour and

texture. No man-devised models are half so interesting or desirable for educational work with children. No teacher should think of first making a drawing or model for the pupils to copy, although this is the method adopted at Schools of Arts and Training Schools. He should, as soon as the child has a fair muscular control of his chalk, place the object itself in the child's hand, and by careful questioning lead him to observe for himself those characteristic and distinguishing outlines and marks which each object possesses. Nor should a teacher correct by so much as a single touch or stroke, the work of the pupil The moment this is done the object of the work is lost, for the work is no longer the expression of the child but stands as the product of the teacher. Remember that it is never the perfect finish of a master workman that is wanted or expected from young pupils. When a child has completed his drawing or model, if it is the best he is capable of doing at that particular stage of development, it should be left to stand as the work of the child, unmarred by the fingers of others.

So important in the opening out and de-

veloping of the child-mind do I consider the proper teaching of drawing that I had spent considerable time upon the preparation of a little manual on the subject, when almost at this writing there came, by chance, to my notice a copy of "*Augsburg's Drawing-Book No. I." This is so exceptionally good in every way and is so replete with excellent illustrations, that I prefer to recommend this little book rather than try, with the inadequate facilities of Indian Printing Offices for illustrated work, to bring out one myself.

CLAY MODELLING What has been said about drawing is true also of clay modelling. The pupil should never work without some real object before him to copy. This he should handle until he is able to *feel*, or *think*, — *i.e.*, *visualize*—its form ; for no one is ever able really to *know* an object until he has both handled it, himself, and then has tried to reproduce its form. Clay modelling is a most valuable aid in training to observe and to understand size, proportion and form. Ordinary country clay is best for the purpose.

* Educational Publishing Co, New York and Chicago, price 75 cents (Rs. 2-6-0).

LEAF WORK: For leaf work in the Panchama Schools, leaves from the cocoanut and the palmyra trees are used. From these the pupils are able to weave mats large enough for them to sit upon, either for use in the school or for their homes. Baskets, baby rattles, horns, whizzers, birds, animals and insects, puzzles, in fact, almost an endless variety of useful articles, toys and decorative ornaments are made by the pupils. Each and every such article is either of some practical use or of pleasure to the children; but, best of all, they are all familiar objects, natural to and suited to the child's own environment; while the material is available at all times, at but a low cost.

No materials, such as coloured paper for weaving and folding, beads for stringing, stick-laying, cards for embroidering, etc., are ever used in our Panchama Schools, and for the following reasons —The coloured paper is imported from Europe; it is so frail that, softened by perspiration, it is torn and soiled at the first contact with little hands; while successfully to weave even the simplest figure demands a nervous and muscular co-ordina-

tion and control that is beyond the natural capacity of any child, without harmful strain, if indeed it is possible to accomplish at all. Yet, supposing the school could afford the cost of this imported material and the pupils could successfully weave and fold the paper, —of what use is the completed object to the child? What purpose does it fill in the ordinary life of any child?

Embroidering and bead stringing are merely a training in taking aim at holes so small as often to require to be held up to the light to be seen. Think of the nervous strain to hand and eye such "aiming" involves! Aside from the harm to the tender nervous organism of the child, such work is but the mechanical following on the part of the child of what has been thought out for it and prepared for it by others. On these cards the teacher has drawn, say, a boat; around this outline the teacher has pricked holes at given distances apart. Now, the child, after he has completed his half-hour-at-a-time lessons at taking aim at a needle's eye, threads his needle and proceeds to "embroider," taking aim at each and every hole which has been pricked for

the purpose. And bead stringing is another similar course at "taking aim." Compare the educational value to the child of such "kindergarten" work as this, or the absurd juggling with cubes and cylinders, without the real Kindergarten idea as to their employment being even thought of (and this is all of the Kindergarten work that I have been able to discover here in India), compare this with what is done in the Panchama Schools, where with chalk, leaves, and clay each child is encouraged and drawn out to express himself, while from such expressions the child is led beyond his own crude conceptions to higher and more complicated ones. Each child should be led to reveal himself in whatever work he does, and it is by careful observation of such work that the teacher is or should be able to gauge the possibilities and the limitations of each individual pupil in his class, so as to help him to strengthen his weak places and to correct his faults while he is yet plastic and readily responsive to instruction.

GAMES AND SONGS. Further to train the child to bring under his control the muscles

of his body, games, with and without songs, are employed.

Ring Toss is one such game. For it a stick some eighteen inches long is thrust into a pot of clay or sand, or a substantial permanent base may be made of wood, which should be weighted sufficiently so as not to topple over easily. The rings are made of fibre and are the same as are used under water-chatties to keep them erect, and are covered with bazaar cloth of an assortment of colours, red, green, blue, yellow, etc. The pupils stand in a circle around the ring pole, and, in turn, as the different colours are called for by the teacher, the child holding the ring of that colour is expected to recognise it from its name and try to toss it on to the stick; the teacher, of course, instructing the pupils how to take aim at the pole. This game involves the poising of the entire body, the bringing into play of certain fundamental muscles, trains the eye to gauge distance and to distinguish among a variety of colours.

A good variation of this game is for the teacher to have short strips of coloured cloth, matching the colours of each of the rings, and

these he ties, each in turn, around the bottom of the stick in the centre, when the children holding the rings of the same colour as the cloth on the stick, are taught to recognise their colour and to toss their rings on to the stick as before.

It is surprising to see how slow many children are at first in matching the colours, and it is very interesting later to observe how pleased they are as they become more successful at it.

And this is a good illustration of true Kindergarten methods of teaching; a new faculty almost, that of colour, is acquired while the children "have only been playing." For "Kindergarten" is not something that can be tacked on to the conventional school curriculum of classes as a compulsory or optional subject, as could clay-modelling or drawing. Kindergarten is not a subject of study for pupils—though it ought to be for every teacher. The "Kindergarten"—the German word, meaning garden of children—is the place where children are studied by their teachers and led to unfold their powers of brain and body, as well as to acquire knowledge—by methods so natural and so adapted to each

individual child that the little ones never realise that they are accomplishing a task.

For another game, the same rings or the caps of the boys are placed on the floor in a row, spaced, ring from ring, sufficiently for the little one in turn to jump, hop, walk and run between, without touching the rings. This game also teaches muscular control, poising, balancing and gauging distance

Another useful game for our purpose is one native to the boy life here in India. One boy acts as the obstacle , he sits on the floor with first but one leg stretched in front of him ; over this leg the line of boys jump The second leg is now placed, heel on toes, above the first leg , this height is jumped To the legs one arm is added , then the other arm. Then the boy takes position on hands and knees and the line jump over his back. And then he sits on the floor, and the boys leap over his head. Finally, one ring, or cap, at a time may be added to increase the height until the limit of their jumping powers is reached. At any stage of the game, whenever a boy touches the obstacle he must, in his turn, himself become the obstacle.

CONVERSATION AND QUESTIONS: The secret of the success of true Kindergarten methods of teaching lies in so arranging and varying the work through which the teacher leads his class that the children think they are at play and they go at it with a zest and enthusiasm that make it ten times more effective in awakening their young minds and making them responsive to what is thus taught them in the guise of amusement. The first practical essential for carrying out such a method of teaching is, naturally, that the teacher should cultivate that bright, cheerful and sympathetic manner which makes the children want to come to him and to talk to him when he speaks or smiles. This, with the ability to make work appear to be play, and yet to keep play in its ultimate result as or more instructive than if it had been "work," makes the successful Kindergarten teacher and, indeed, Primary teacher, too—for this principle of teaching with modifications to suit the age of the pupils should be carried through all the Primary Standards at least.

The Kindergarten class marches in singing a marching song with much action and viva-

-city. Forming a circle, the song is changed to one of salutation, first to their teachers and then to each other. The teachers then sit down in the same circle with the children, on the floor, and work begins.

First the little ones are made to bubble over with laughter by such questions as, what they had to eat before coming to school; what else they did; what their parents did; etc. Thus their young memories are stimulated to recall events in successive order, and so begins the training in consecutive thinking.

The teacher carefully watches his class and at the least sign of flagging attention which he cannot disperse by throwing more interest into what he is doing, he at once proposes that they shall play a game and asks the children what it shall be. The football is called for and children and teachers standing in a circle the football is kicked in the most lively manner backwards and forwards. The child or teacher who lets the ball pass him, out of the circle, on the side of that foot with which it is allowed to kick it—and this is changed from the right to the left in alternate games—must sit down in his place on the floor,

while the others go on with the game. Quickness of eye, readiness on their feet with every muscle of their bodies, and good nature and self-control—so as not to cry if the ball by chance happens to come too straight for some little nose——this is what they learn from the game, though they themselves see nothing in it but great sport.

Soon the watchful teacher sees that the children have become sufficiently tired, physically, to sit quietly without restlessness for a while. He therefore proposes that he should tell them a story and they sit down again in a circle as before. The "story," whatever the subject, takes the form for the most part of questions to the little ones to draw it out, as much as possible, from their experiences, the teacher commenting, supplementing and explaining. The great advantage of this method of teaching is that it stimulates the children's memories, insures the activity of their minds on the subject, and, if the teacher wisely scatters his questions throughout the class, quick to notice a wandering eye and directing a question to such little one, a constant interest is maintained; and the comments

and additional information which the teacher intersperses throughout are so connected with what the children already know that it becomes a definite part of their knowledge without their realising that they are learning a "lesson."

In these story-lessons which are illustrated by actual objects, or by clay or other models, etc., etc., the facts elicited are acted out as much as possible, while in order to cover the whole of a subject and at the same time to assist the memory by means of the great aid of association of ideas, all the programme of a day is made as far as possible to group about one subject. The variations of the treatment of a subject would include story-lessons and acting them out, action songs and games, and, when they can be applied, drawing; painting in water colours, clay modelling, palmyra leaf work, and paper work

As an illustration of the many forms in which one subject may be treated, take one day's lessons on the subject of "paddy." When first questioning the children, as explained above, it is brought out by the teacher that the *oppers* or the *cunji* which they had had to eat before coming to school were made

from rice. He then leads the children by careful questioning, aided by promptings and suggestions of his own, to tell, step by step, the whole story of paddy—from the preparation of the soil, the planting of the paddy; the watering of the fields; the growth and ripening of the grain, harvesting it, treading it out by bullocks, winnowing it, its further preparation for sale in the bazaar; buying it; cooking it, and at last, back to the starting point—eating it.

These various steps are illustrated by specimens of the paddy plant in different stages of growth, by the acting out of the preparation of the soil, as well as of the treading out of the grain (a child driving two others on hands and knees to represent the bullocks and driver), by a model *picotta* of clay and wood, made by the boys of the Fourth Standard in the School; by samples of the different kinds of rice, as bought at the bazaar, etc.

The action songs are, for the most part, written or arranged by the teachers themselves, many of whom become very successful at it. They are often planned, when possible,

to illustrate a story, such as the above, describing in song the different stages which the children act out with gesture and movement as they sing.

The paddy still forms the subject of study when the children break up the larger circle to form smaller groups for drawing, water-colour painting, clay-modelling, leaf work and paper-cutting The paddy plant is painted and drawn ; the bullocks, the parts of the *picotta*, etc., are modelled in clay ; while the bullocks, again, and perhaps the man who drives them, or the bazaar-man, are cut out of paper, in outline These small groups are taken, each by the teacher and his assistants —the children going into the different groups in turn, while between times they return from time to time to the work of the large circle.

There is another form of story which has its place on the daily programme. This is usually a folk-lore tale, or fable, carrying with it some lesson of a moral nature and is told to the children by the teacher who shows them how to act it out. The children are then helped by the teacher to repeat the story to him, in their own words. An example is the

story of "A Greedy Boy," who, offered some rice from a chattie, put in his hand but grasped so much that he could not get it out.

As, in the Infant Standard, advance is made to the stage where number work is to be taught, from the very first each figure should be associated with the number of actual objects which it represents. First one object of a kind is placed on the floor before the class · *one* book, *one* cap, *one* flower, *one* leaf, *one* bell, *one* box, etc , until the child knows *one*, and is able to recognise without hesitation either of the written symbols (1, and *one*) or the word, *one*, as spoken Actual objects should be used in the same way to teach the values of the succeeding figures. But from the time that the child is aware that *one* book and *one* book are equal to *two* books, he should also be taught that to take *one* book from *two* books will leave *one* book. In other words, before a child has advanced in numbers beyond the number *ten*, he should be able to add, to substract, to multiply and to divide the numbers below *ten*.

The ground work for fractions is taught in this wise: The children gather from some near-

by hedge, say, some wild green figs—whole fruits. These are cut in half and several groups are made of these half-fruits. The teacher, writing the figure symbol for one-half and for two-halves on the board, shows, by help of the actual fruit, that two half-fruits are equal to one whole fruit The pupils are taught to write down the sum as follows, for by means of the three different forms of setting down the fractions of equal value the child is able to detect his own wrong calculations —

$\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$ fruit = $\frac{3}{2}$ fruits = $1\frac{1}{2}$ fruits.
$\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$,, = $\frac{4}{2}$,, = 2 ,,
$\frac{1}{2}+\frac{1}{2}$,, = $\frac{2}{2}$,, = 1 fruit.

$\frac{9}{2}$ fruits = $\frac{9}{2}$ fruits = $4\frac{1}{2}$ fruits.

As the pupils advance in understanding, other fractional parts of the whole ($\frac{1}{4}$, $\frac{1}{3}$, etc.) are taught, but always with the fractional parts of actual objects before the class.

Since the majority of the pupils in our schools are to be servants, they need to have some knowledge of accounts. We have, therefore, in each of our schools, full sets of measures, balance and weights, also a set of coins (made by the tin-smith, of tin and

copper), each the exact size of the coin it represents. The pupils themselves make the comparison of the fractional parts of weights and measures, using water or sand for the purpose They are taught also to make change with money, with any combination of the coins.

Bazaar lessons are held, where sand is sold for sugar, fine gravel for rice, and clay models or wild figs for vegetables. The teacher writes on the blackboard a list of articles to be purchased and the price to be paid for each. The pupils copy this on to their slates and figure out the total cost. They calculate also the amount of change they would have returned, if one or two rupees, etc., were offered in payment of the bill. Two pupils are then selected, one to act as bazaar-man, the other to do the purchasing. The remainder of the class look on with eager interest as each article that the bill calls for is actually being weighed and measured before them. The customer gives the one or two rupees to the bazaar-man, who returns the change. To illustrate, in detail, this method of "* Beginning Number Work" with the

* *Thompson and Co*, Madras, Price 8 annas.

Infant Standard, I have prepared a little book under that title—*for teachers*; with the idea that, from the repeated following in detail, there, of lesson after lesson up to the number *five*, with several "bazaar lessons" interspersed, they will so be able to acquire this method of teaching as to be able to apply it themselves not only to the higher numbers, but also its principles to other branches of study.

Each class in our Panchama Schools now, too, has lessons in "visualizing." Slates are made ready by the pupils and placed on the floor before them, then the pupils, standing, turn their backs while the teacher writes a group of from three to five or seven words or figures on the blackboard. At a signal the children turn just sufficient time is allowed for a single reading, then it is quickly erased from the blackboard and the pupils take up their slates and write what they have remembered. Again, out of the sight of the class, a group of objects is placed somewhere on the floor. The pupils are marched quickly past these objects and back to their place, where slates are taken up and again the names of as many objects as are remembered are written down.

In each school-compound the pupils are shown how to build up a representation of a range of mountains, which is usually left to stand there permanently; while, out in the compound, they often draw outline maps in wet sand and build up hills and indicate rivers, etc. Some of the classes have made trips to St. Thomas' Mount; to the sea; to the Adyar river, to study river currents, island formations and other interesting features; while almost all, even our Infant Standard pupils, have been at least once to the Museum, Zoo, Botanical Gardens, Moore Market, Railway Stations, Fort St. George and past the most prominent public buildings and statues.

The above will perhaps give something of an idea of the work in our schools themselves. The most important aid to this has, however, not yet been touched upon. As far as my own experience goes, it is only in America—with, perhaps, an occasional, isolated instance in Germany—that any thought is given to the further training of the *teachers*, after they have once, usually as mere youths, spent the required period—here, in Madras, of one year only—in a recognised "Training School,"

and have received a "certificate," which is recognised as qualifying them to "teach" for all time! This, I believe, suggests one of the greatest needs—one of the greatest weaknesses in our Educational systems in India. Youths are caught while still young, are "rough-broken" by a year's so-called—and most superficial—"training," and then turned loose, with a certificate,—and forgotten! I recognise, of course, the very great difficulties of absence of funds available, absence of competent help for the few real Educationists who have, in different parts of India, really had the interests of *Education* at heart,—and so, without any especial thought of criticism of what it has been possible to accomplish in the past, I would like to call serious attention to the very great need of provision in one form or another—and in as many forms as possible—for the keeping up and the broadening in every way possible of the training of teachers—just as long as they may continue to present their time-worn "Certificates" of a *one-year course of training* as a qualification for employment to teach.

To this end the Departments of Education

should provide *competent* and effective "vacation classes" in connection with every Government Training School. These should not have anything to do with mere "lectures" on one subject or another—they should have nothing to do, in the few brief weeks at their disposal, with the further *education* of the teachers, but should be confined rigidly to their *practical instruction and drill in methods and ways of teaching.* Model classes would be held, composed of the teachers themselves, as well as, where practicable, of pupils; and these vacation classes should embody all the best results of the *practical* work in the Training School, itself, during the preceding term.

Certificates of attendance and of interest and efficiency shown would be attached to the original Certificates of Training of teachers, who attend, and these would be of quite sufficient value to the teachers for the time devoted out of their vacations year after year —without payment of any "stipend"—a value which would be recognised by all Managers of seriously conducted schools. "Time Service Certificates," unaccompanied by regular

annual certificates from recognised vacation classes, would, then, I hope, not be recognised as a qualification for a teacher in any school.

This idea of *competent* training classes for teachers, conducted at Government Training Schools, is, I fear, a matter of the future—though the *near* future, I hope, at least in most parts of India. In the meantime, what is done must be carried out by Managers themselves.

Throughout the year we hold a Teachers' Training Class, meeting one half day a week, more especially for our own teachers, though where we find teachers from other schools interested in learning new methods of teaching, we are glad, as far as is possible, to admit them.

Once a year it is our plan to hold a Teachers' Institute, as inaugurated so successfully two years ago, where the results of their year's training is shown by the teachers who conduct model classes, while criticism and discussion bring out suggestions for further improvement during the coming year.

True Kindergarten work requires teaching of a special kind, and Kindergarten teachers

in the West are expected to have from two years to ten years training in a Kindergarten College. The Kindergarten work which was shown at our Institute this year, was conducted by teachers who had begun their special training on these lines only comparatively recently. The work therefore which they showed there was suggestive of lines on which they are beginning to work rather than as displaying any great results already attained. The Kindergarten teaching, too, is adapted to the local conditions—the simplicity and even poverty of the life of the pupils ; the main effort being to awaken the interest of the children and to teach them to play together with more intelligence and organization, and so to fit them to do better work in the higher Standards.

It has been suggested that the majority of pupils from the Backward Classes seem to stop at a point in the higher Forms beyond which it seems impossible for them to advance in their studies. It would be interesting to see whether such pupils, started with the foundation of a Kindergarten training and carried up through the higher Standards and

Forms on a method of teaching based upon objective or concrete work as opposed to abstract teaching and memorizing, would not be able to go very much farther in their studies and, indeed, even compete with pupils inheriting greater natural capacity but taught only on the old, conventional lines.

The higher castes here in India have behind them a long heredity of mental training which the lower castes have lacked. If, for the latter, education must be along concrete, objective lines, it may also be that education along similar lines would be found to be what is needed to fit the former, the higher castes, for success in practical life as opposed to success in passing examinations.

This at least is the idea which underlies the work which we are trying to do for education in India, and if the work done in our Schools can help ever so little towards the practical working out of this broad idea we will feel ourselves amply repaid for the time and labour given to it.

As I warned my readers at the start, what I have been able to describe can be after all, but a very inadequate exposition of the very

practical and comprehensive work that is actually being done in our Panchama Schools. And, while we have the opinion of many who are engaged in educational work in India to the effect that these are model schools of the first rank, yet when we measure them, not by what we have so far been able to accomplish, but by what it is possible to attain, we are still very far from satisfied.

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