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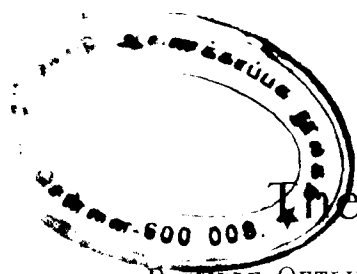
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THE STORY OF A CHAPATI



The Story of a Chapati

POSSIBLE OUTLINE FOR CLASS DISCUSSIONS IN A KINDERGARTEN

BY MRS. H. W. LINDSAY, PAULI.

What is this little girl's mother grinding for her?

From where did the grain come?

Where did the bunya get it?

Who took care of it in the fields? How?

Opportunity for planting project, story of a seed, "Kisan ka Git", etc.

What had to be done to it after it was cut in the field?

When was it ready to be ground?

How did it travel from the farmer to the bunya?

Opportunity for Transportation project.

Perhaps a bird stole a seed *en route* and planted it on top of a mosque, etc.

How much did mother pay for it?

Opportunity for Store project, moneymaking, simple Arithmetic, etc.

What is the mother grinding from the grain? What else could she grind?

Do you like duliya?

Discussion of relative health values of bran, ata, maida, etc.

What did you eat for breakfast this morning?

Have children point out those breakfasts that were good for growing children and why.

What will the mother make from the ata?

What will have to be put with it to make the chapatis?

How will she make them?

Let us all make chapatis.

Let us all eat them.

How many people have helped make the chapati you are eating? (eight)

What tools did they need to help them?

Perhaps make both farm utensils and kitchen utensils out of clay.

Christian Education

The Arcot Mission Experiment in Tests

BY J. H. WARNSHUIS, M.A., VELLORE.

INTRODUCTION.

THIS pamphlet is prepared in response to numerous requests to make available the tests which have been used for two years in making admissions to the hostels of the American Arcot Mission. It is not put forward with any thought of finality, nor can it contribute much to the cause of psychological research. Confronted with the necessity of selecting one candidate among five applicants for admission, the Arcot Mission resorted to a few simple tests which could be quickly and easily administered and which would give some indication of the innate mental reactions of the pupils. The situation we had to meet is one that every mission faces and it is hoped that the ensuing description of the method adopted by the Arcot Mission will be of practical value to many others.

The age of eight to twelve and the stage of school life between the third and fifth classes are the periods which call most urgently for the kind of analysis attempted by mental tests. Upon the estimate formed of a child's capacities at this time depends his future, whether he is to remain a simple village worker or go on to higher study and become, perhaps, a future leader of his people. History records many instances of the world's greatest and most brilliant men who were adjudged dunces by their early teachers and unfit for school. How many more such remained undiscovered and lost to humanity we are not estimate. Conversely every teacher has had abundant experience of dunces who were forced upon them as geniuses. How can we tell? It will be recognised that this is not

merely a practical question but a deeply philosophical one, a question of the most profound importance to human welfare. Though of intense significance to the child and his parent, it is even more so to the race and to social progress. Most people have an unwarranted confidence in their ability to estimate a child's intelligence by some vague process of "telling from their faces", intuition, etc. To anyone who will take the trouble to investigate this method of judging intelligence the inaccuracy of it will be speedily proved. A more reliable guide is the quality of the pupil's work at school. But this too has been shown to be subject to a large variety of errors even under the best conditions. It is utterly worthless as a selection test when dealing with children coming from many different villages. One's knowledge or lack of Chinese is no criterion of his intelligence. It is more likely an index of his opportunity. The same thing applies to a child's knowledge of reading and arithmetic.

The remedy must be sought only along the lines now being followed by psychologists the world over: That present tests present an infallible measuring unit of intelligence none would maintain. That the verdict of such a test takes precedence of the indications found in the classroom work of a well conducted school can scarcely be claimed. But that there are situations where some such tests as these are the only criterion possible may safely be asserted. The verdict, though fallible, is the best we can secure.

It may be useful to mention the criticisms that have been made of our use of these tests. Naturally the first thing that would be said would be that they come from America. We are told that we should use tests that deal with an Indian background. This would be a just criticism in the case of some tests but an examination of the tests herein described will show that this is not the case with these tests. The tests would be as foreign to an average American child as to an Indian child. Our results show that the factors of previous experience, environment, and parental aid did not greatly affect the results. The tests most affected by these factors were the reading and arithmetic tests, not the intelligence tests. An ideal test of intelligence is one almost entirely outside the range of previous experience, presenting only a minimum of familiar elements and a larger number of utterly strange elements. ^{is} ~~all~~ would come the nearest to being an equally fair test.

Failing that, it must be a test equally common to all. So the foreignness of a test so far from being a disqualification may actually be its chief merit.

Secondly, it was charged that the children were timid and frightened and unable to do themselves justice. The very fact of a missionary examining them would disconcert them, it was said. It is difficult to see how this can be avoided in a test of any nature. Timidity and mental paralysis under such circumstances are in themselves disabilities that cannot be ignored and other things being equal may very well be allowed to become the deciding factors. But experience in our case proves the objection to be exaggerated. Two or three children were too badly frightened to go on with the tests. But the parents were as much responsible for that state of mind as the examiners. Special effort was directed at the very outset towards putting the children at ease. By the time they had taken their congee, played a few games, sung a few songs, and concluded the usual opening exercises of school, they were quite ready for the tests. A practice test preceded the test proper the first year we gave them, but the second year we were unanimously agreed that this precaution was not necessary. Beginning with familiar work in reading and arithmetic the pupils felt thoroughly at home at once. The novel nature of the other tests captured their interest in most cases and dispelled all embarrassment. The individual tests gave us abundant opportunity to make sure that the child was not nervous and was giving us his best. In fact, the intelligence test is far less a nervous strain than any ordinary type of examination and does far more justice to the timid and nervous child.

A third objection raised was that we required the pupils to work with pencil and paper, whereas they were only accustomed to slates. To meet this we gave the practice test with pencil and paper the first time we tried the tests. But we considered the objection of so little force that we dropped the practice the second time.

Fourthly, it was said that the children did not understand the tests and did not know what they were expected to do. This is true, but parents failed to realize that this failure to comprehend was an essential feature of the test. The directions were explicit and carefully planned. An intelligence test, as often as not, is as much a test to ascertain ability to comprehend and carry out a direction as it is a test of actually executing a given

action. Surely there is a difference in intelligence between the child who understands a direction and the one who does not. We can sympathize with the parent who raises the objection but to answer it would require a very deep plunge into psychology.

Last of all, we had the objection very bitterly brought forward this year that "this is the second year my child appeared for the test and he has failed again". This, which is held up as a fault of the test, is a complete vindication of its underlying theory that it is measuring innate fixed qualities of mind. To substantiate this statement would carry us beyond the scope of this pamphlet.

There were several difficulties we met with which it may be well to mention. The most serious of these was the age data. Teachers' children can usually supply this with accuracy but villagers' children have not the facts or if they have them do not bring them with them. We required a certificate of age of some sort, usually the church record. Failing this we tried to connect up with some outstanding occurrence and often we made a pure guess. This year we weighed, measured, and took the vital capacity of the pupils and in one or two cases we ventured to record an age on this evidence of physical maturity. Dentition and change of voice is sometimes a help. But the correct evidence of age, so essential to intelligence testing, remains and will always remain a great handicap to their use in the villages of India. In computing norms, however, cards were carefully sorted into two classes, those of well attested age and those whose ages were not certain, and only the former were used to fix norms. Of 225 children examined this year 30 could furnish no evidence of age. It is noteworthy that these 30 produced few passes and several imbeciles. Of the 195 remaining many made incorrect statements of age but we may assume that we eliminated error as far as possible and that the remaining errors probably cancelled each other to some extent. Next year we propose to pass out perforated application blanks in duplicate, one to be sent to the committee and the other to be presented by the child when he comes to the examination. The latter will be gummed and will be affixed to his score card. This will enable us to investigate on the spot instead of being compelled to correspond with very unreliable correspondents.

Another difficulty lies in the explanations and directions by which a test is put before the children. It is a very essential

element of a test that directions be given as far as possible in the same words and almost in the same tones. We are measuring a reaction to a stimulus. We must guarantee that the stimulus is the same for every child. A single word may give one group a clue that is denied to another. Some of the assistants who accompanied us were tempted to vary the formula agreed upon. However, this is not an insuperable difficulty and can be more and more eliminated with care and experience. Anyone using these tests must be on guard against it.

Onlookers are also a trouble. The tests arouse much curiosity and parents are naturally anxious to see what is going on. So far from helping the children they tend to make them nervous. Few of them appreciate the necessity of leaving the child absolutely alone to work out his own solution and even those who might be thought fit to be admitted cannot restrain a chuckle at a bit of cleverness or a groan at a stupid move. Get the children by themselves and keep them so until you are through with them. They will be happier so and the results will be better. But it can only be accomplished at the cost of inflexible firmness. On the other hand, to surround the tests with an air of secrecy may mean loss of confidence and the stirring up of needless antagonism.

One cannot expect to introduce new methods without opposition. Do what we may, there will remain those who do not want to be convinced, who will refuse to investigate, and who will undermine our work with subtle antagonism and scepticism. This can best be met by persistent publicity. As people come to understand the tests better they realize their value. No time should be lost in making results known where the fate of children depends upon them. Everyone concerned should get full information for anyone slighted becomes an enemy. Of course the final justification of the test lies in the school records and one who undertakes to introduce this method should include plans for detailed records following up the results of the test for many years to come. Needless to say, none should venture upon such a work as this without seeking to understand it as thoroughly as possible. A selective bibliography is appended which will repay consultation. One's estimate of a pupil is to be formed not merely by the quantitative score attached to his name but by carefully watching the nature of his reactions in the light of the best psychology.

PART I.—THE TESTS.

TEST 1. READING, 1923.

English.

We print below the English version of the test employed:—

1. What is your name?
2. What is your age?
3. In what class are you reading?
4. Mongoose, squirrel and parrot.
How many legs has the mongoose?
5. The fox is fond of crab. The fox will catch and eat the crab. The crab lives in holes.

What does the fox do with the crab?

6. Paddy is a grain which grows in the—land. Millet will grow in the dry-land. Water is supplied to the wet-land from the lakes. Dry-land will have water only when there is rain. Paddy will not grow in the dry-land.

Where will paddy grow?

7. The shepherd takes his sheep to the forest. There he will feed them. Goats will eat leaves, and sheep will eat grass. Blankets are made of fur of the sheep. Blankets are very useful to the shepherd.

What does the sheep eat?

8. *Zacchæus* the short man climbed up into a sycamore tree to see Jesus. And when Jesus came to the place, he looked up and said, *Zacchæus* come down; I must stay at your house. *Zacchæus* came down and went to his house with Jesus, and made a big feast.

Where was *Zacchæus* when Jesus called him?

These may be varied to suit conditions if certain points are regarded. Each exercise must proceed in difficulty from less to greater. The first exercise must be simple enough to enable fully 90 per cent. to pass. In our first attempt we took for our exercise the following:—

"The cat has four legs and two eyes. How many legs has the cat?" This was passed by 49 per cent. of the pupils. We were forced to look for something easier. The exercises must be new to the pupils, not abstracted from readers. But they must not be subject matter totally outside his experience. The last exercise must be difficult enough to permit only a very few to pass. The sample test is open to criticism on that score. The

last test is too easy. Not more than eight or ten exercises are called for. To add more will only increase the labour of storing and the duration of the test.

The children are seated so that all work under equal conditions as to desks, pencils, lighting, etc. If desired a practice test may be given. If given, children must be furnished with blank paper. A sentence is written on the black board and care must be taken that all children see it easily. Any sentence will serve such as "I live in Madras". Tell them to write this on their papers. Now write the question, "Where do I live?" and tell the children to do the same. Ask them to write the answer and show them how it is to be done by writing the answer on the blackboard. A second illustration may be given if desired. If the practice test is given collect all papers at this point. Now say,—

"I shall pass out papers on which are printed sentences like this one which I have just written and with questions about the sentences which you are to answer. See this is the paper I am going to give you. Here is a sentence and underneath it is the question and you must write the answer to the question underneath it. You must work quickly and not look at other pupils."

Pass out the papers face down, telling them not to turn the papers until told to do so. When all are supplied with the tests, ascertain that each pupil has a pencil in good order and is ready for work. Mark the time with a stop watch if possible. Make sure that every child knows what is expected and answer questions but do not encourage the asking of needless questions.

Say:—

"Turn your papers. Begin work".

Have a supply of spare pencils on hand and give new ones to those who break their points.

At the end of *Twenty* minutes exactly call out emphatically,—*"Stop. Turn your papers"*.

See that all work ceases immediately. Collect the papers, making sure that every paper contains the child's name and his examination number. See general directions on page 19 for identifying papers etc.

TEST 2. ARITHMETIC.

The sample test below is adapted from the Woody McCall test.

Arithmetic.

Name பெயர்	Age வயது	Class வகுப்பு						
Add (1)	Multiply (2)	Divide (3)	Subtract (4)	Multiply (5)	Subtract (6)	Add (7)	Subtract (8)	Subtract (9)
கூட்டு 2 3	பெருக்கு 2×3	வகு 3)6(	கழி 2 1	பெருக்கு 23 3	கழி 13 8	கூட்டு 17 2	3+1	கழி 16 9
Multiply (10)	Divide (11)	Add (12)	Subtract (13)	Divide (14)	Add (15)	Multiply (16)	Add (17) (18)	
பெருக்கு 254 6	வகு 4÷2	கூட்டு 23 25 16	கழி 393 178	வகு 2)13(	கூட்டு 9 24 12 15 19	பெருக்கு 5096 6	23-1 ரூ. 12 8 0 16 12 0 15 12 0	
Multiply (19)	Add (20) (21)		Multiply (22)	Subtract (23)	Add (24)	Add (25)	Multiply (26)	
பெருக்கு 7898 9	கூட்டு 1 of 128		பெருக்கு 287 50	கழி 248÷7	27 12	கூட்டு 4·0125 1·5907 4·10 8·673	பெருக்கு 9742 59	
(27)	Add (28)	Multiply (29) (30)		(31)	(32)			
1 of 624 =	கூட்டு ·49 ·28 ·63 ·95 1·69 ·22 ·33 ·36 1·01 ·56 ·88 ·75 ·56 1·10 ·18 ·56	1/2 × 2 = 987 1/2 25		1/2 × 5 =	7·3-30·0081 =			
		(33)		(34)				
		9) 69 lb. 9 oz. (		பெருக்கு ·0963 1/2 ·084				
		(35)						
		25·091+100·4+25+98·28+19·3614 =						

It will not be wise to make alterations in it for each example is carefully graduated as to difficulty. A practice test may be given if desired. The directions are much the same as in the preceding test. An example illustrating each of the four rules is placed on the blackboard with the words "add" "subtract" etc., written above it as in the test. Explain somewhat as follows:—

"What is written here?" "Add"

"What is the answer then?" "Yes, that's right, So I write it here".

Work each example in this way illustrating that they must look at the word above each example, work it out and write the answer underneath. In the same way explain the signs for each operation. Erase the blackboard or turn it and pass out the papers as before. Allow *fifteen* minutes for the test, stopping work exactly on the dot and collecting the papers, all properly identified by name or number or both.

TEST 3. PICTURE COMPLETION.

The test consists of several pictures with essential parts omitted which the children must draw in.

The choice offered in the sample above is not the happiest but the test has been fairly successful in spite of this. It is not essential that a picture should be of something familiar. A strange picture may intimidate the child of lesser wit and create no reaction where the brighter child, though not recognizing anything familiar, may yet have enough sense to discern something essentially wrong with its symmetry or logic.

No practice test should be given in this test.

Have a picture prepared on the board of a cow with one horn or lacking a tail or leg. The children will readily point out the mistake. Then draw in the missing part, drawing it rather crudely and making it clear that skill does not matter, you only wish to show that a leg belongs there.

Follow the same procedure as before in distributing and collecting papers. Allow *three* minutes only. This may seem short but if a longer time is given too many will complete the whole test and there will be a poor distribution of scores. Probably 75 per cent. of the pupils would do all the pictures if allowed

sufficient time. But quickness of perception is an element in intelligence that we seek to measure along with other powers and the time allotment should not be altered.

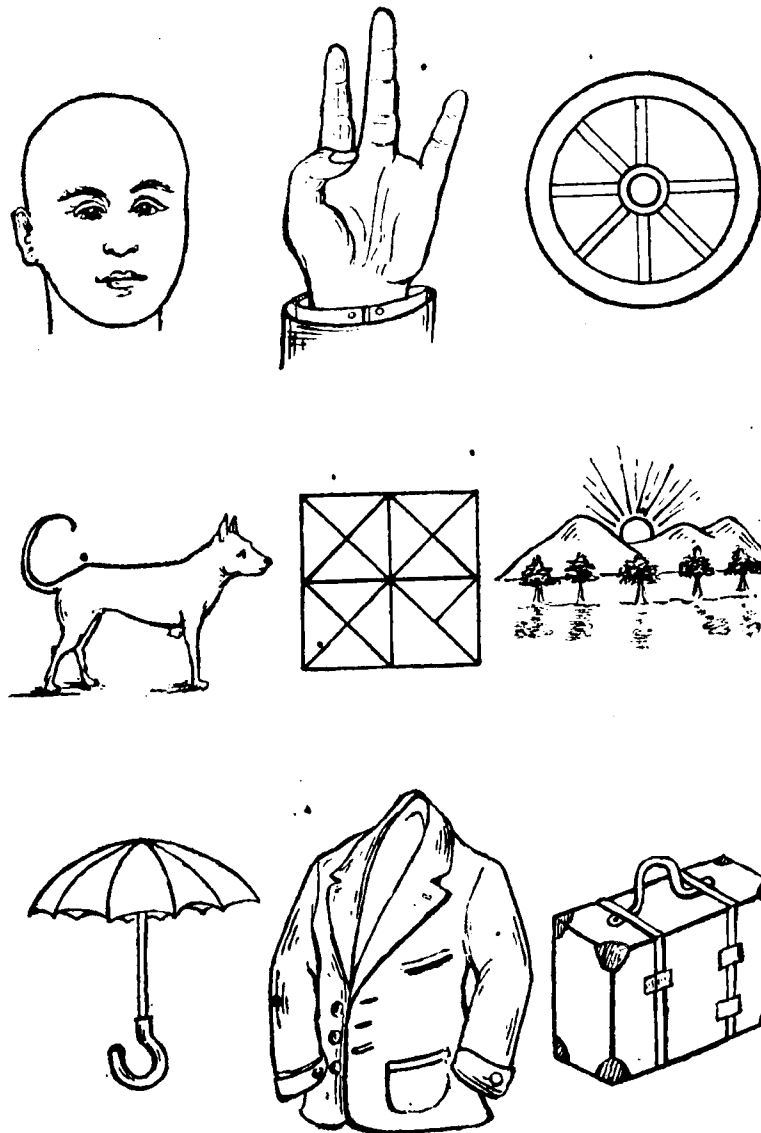
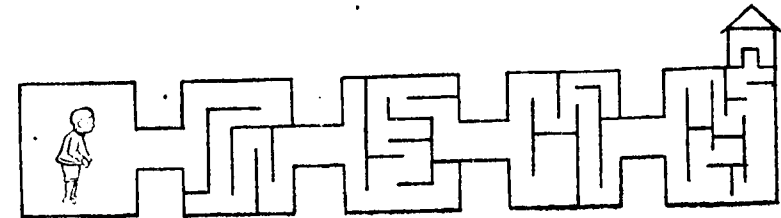


FIG. I: PICTURE COMPLETION TEST.

TEST 4. MAZE.

Draw a sample maze of four squares on the board. Tell the following story, observing the same language as closely as possible.



TEST 4. PRACTICE MAZE.

"What is this? (pointing to the boy in the left hand square). This little boy is going home from school. Where is his home in the picture? Yes, that's right, here. Do you all see it? Now these four squares are pictures of four villages and these lines here show the streets. The little boy must pass through these four villages to get to his home. But there is only way for him to get through the streets. Some of them are blocked by houses. He must not go around the villages for it is getting dark and there is jungle all around the villages where he will be in danger of snakes and beasts. Now watch me draw a line showing the road the boy must take to get to his home. If I make a mistake you tell me. (Trace a line showing his course. Make an intentional mistake in the second square. The pupils will quickly correct you. If not, get them to do so by a leading question. Emphasize the mistake you have made by showing much chagrin at your stupidity. Make several more mistakes and encourage them to take keen delight in correcting you. Express satisfaction at getting the boy home). There he is safe home and only just in time, for night has come. Now I am going to give you a similar picture. See here it is. Here is the boy and here is his home. From this village he goes to this one and then to this and then to this and this and this, (pointing to each square in turn). Remember he must not go around the villages, he must not cross the lines but go only where the street is open and he must go quickly for it is getting late,

Pass out the papers as before. Allow *three* minutes.

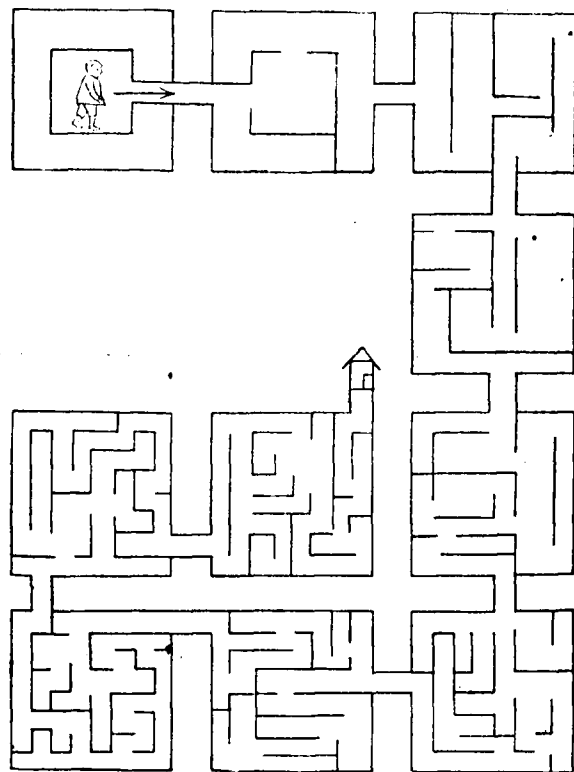


FIG. II: MAZE TEST.

TEST 5. DOT PATTERN.

The problem in this test is to cross out the dot that does not fit into the symmetry of the pattern.

Illustrate by placing a group of dots on the board with an extra one added entirely outside the pattern. A circle of dots will do.

"You see these six dots. They are placed in an orderly way but one of them does not belong to the group. Which one is it? Yes, that's it. So we will draw a cross through it, this way, to show that this dot does not belong there. On the papers I am going to pass to you are several groups of dots each one of which contains one dot that does not belong, it's out of

order. I want you to cross out the dot in each group that does not belong there."

The explanation seems very meagre but it proves quite sufficient. If it is not understood, draw a second illustration.

Pass out the papers as before. Allow *one* minute. In

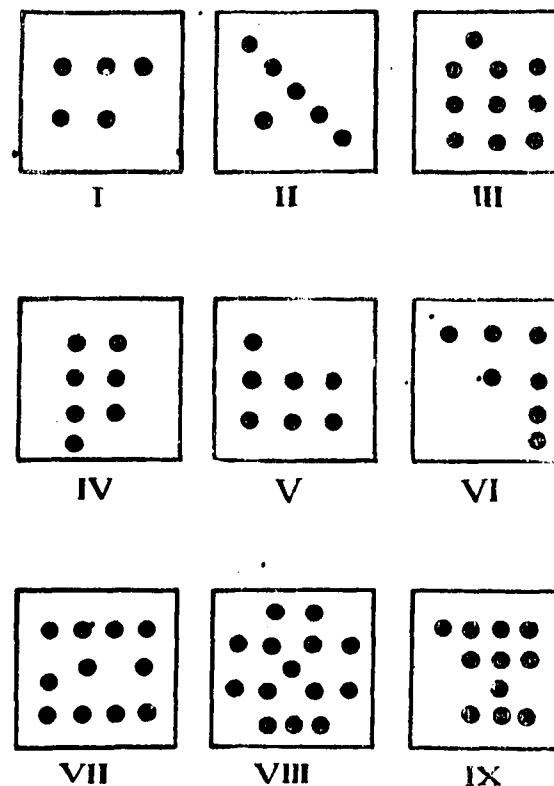


FIG. III: DOT PATTERN.

printing the patterns it may be possible to improve on the sample by making it clearer which is the top and which the bottom. It is difficult to see how this can be guaranteed and the examiner will need to look around quickly and sharply to see that all have begun with No. I and have the papers right side up. The printer must make the dots very distinct and round. A smudgy or imperfect outline is a serious defect that may greatly modify the results.

This concludes the group tests and makes a suitable point to stop for meals or recreation if the group is large.

TEST 6. FORM BOARD.

The nature of the board is readily understood from the

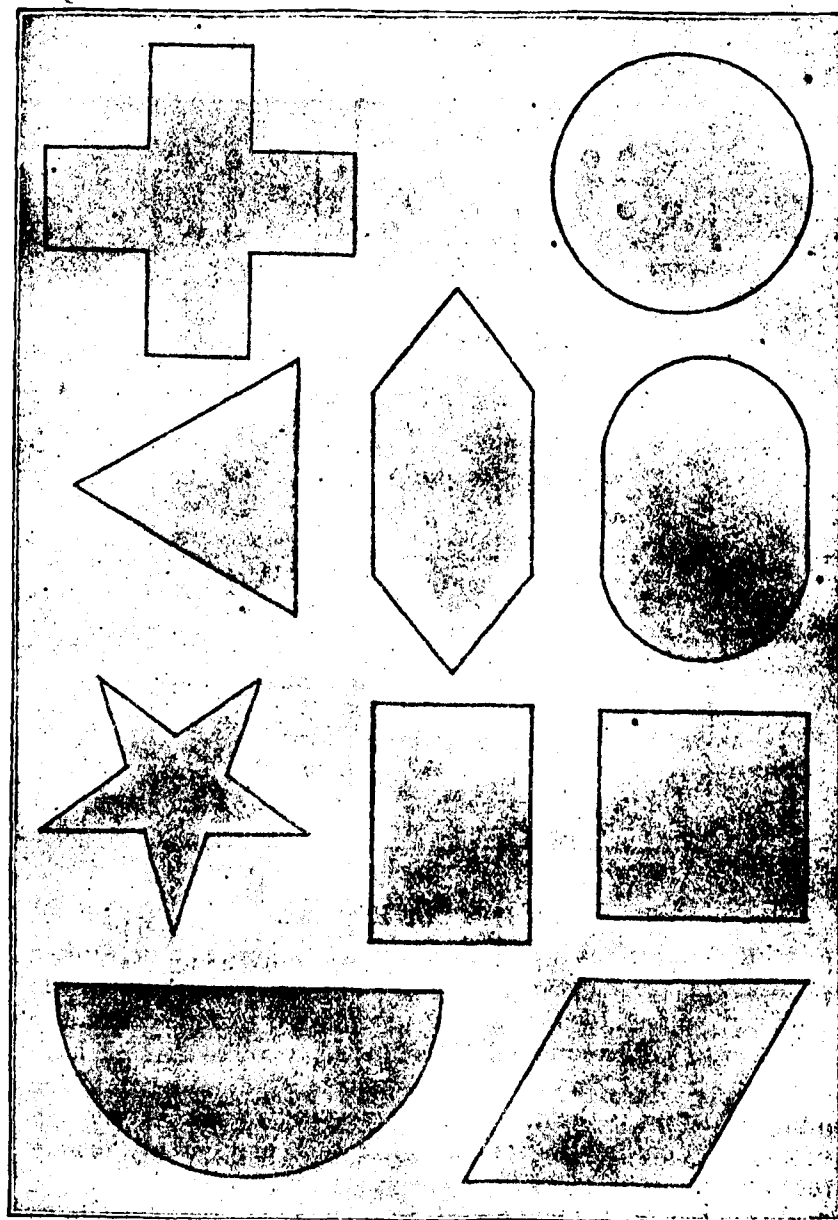


FIG. IV : FORM BOARD.

picture. It should be well made, so that the blocks fit easily and snugly into their sockets. The boards may be secured from the Arcot Mission Industrial Institute, Katpadi, but any capable carpenter can turn them out with little supervision. They are best made by gluing two or three boards together. The sockets are $\frac{3}{8}$ ths of an inch deep. The blocks are $\frac{3}{8}$ ths of an inch thick, and as nearly uniform in size as their varying form permits. There should be no rough edges to injure the hands. The dimensions of the entire board are 20 x 14 inches. The blocks and their recesses should be black and the surface of the board light. The board should present an attractive appearance when finished.

The blocks are arranged in three neat piles above the board, the child being comfortably seated before it. We have found it best to have the child kneel on the floor and work on a low bench or to stand at a table or desk if he is tall enough to work at it comfortably. The examiner must make sure that the subject is in a position to work with the utmost rapidity and ease. Some writers assert that the arrangement of the blocks does not matter. Others specify the exact pile in which each block must be found. Pintner and Paterson simply say, "no block in the pile nearest its recess, the lozenge and the elongated hexagon not in the same layer, and the star in the lowest layer". One quickly falls into a habit of setting up the piles in a fixed manner so it may be just as well to arrange them always in the same order. Subject to the above restrictions, this order does not greatly matter if it is always the same.

A stop watch is indispensable.

Pintner and Paterson's formula is, "Let us see how quickly you can put the blocks in place." We have adopted the following:—

"Do you see these blocks? Do you see these holes? Put these blocks in these holes as quickly as you can." After the first trial, any errors are pointed out, as for example blocks not placed exactly in the sockets and then we say, "I am sure you can do that more quickly. Shall we try again? As soon as he starts say, 'Quickly.'"

Three trials are given and the time recorded, the score being the shortest of the three records. Press the stop watch at the moment the first block is touched and stop it at the moment the hand leaves the last block in place. Pupils are allowed to use

both hands but few do so. If a child is lefthanded an extra trial may be allowed with the hand he did not use whether left or right to ascertain whether he has handicapped himself. Pintner and Paterson limit the trial to five minutes but in our experience two minutes is sufficient. If a child has not set up the board in two minutes he should be given a little instruction and allowed to try again. Do not allow anything to distract the subject. If anything of the kind occurs he should be given another trial. Make sure your stop watch is set ready for timing before you give the signal to begin.

TEST 7. MANIKIN.

The shape of the pieces is depicted in the figure. Pintner describes it as follows:—"The figure is cut out of wood which is

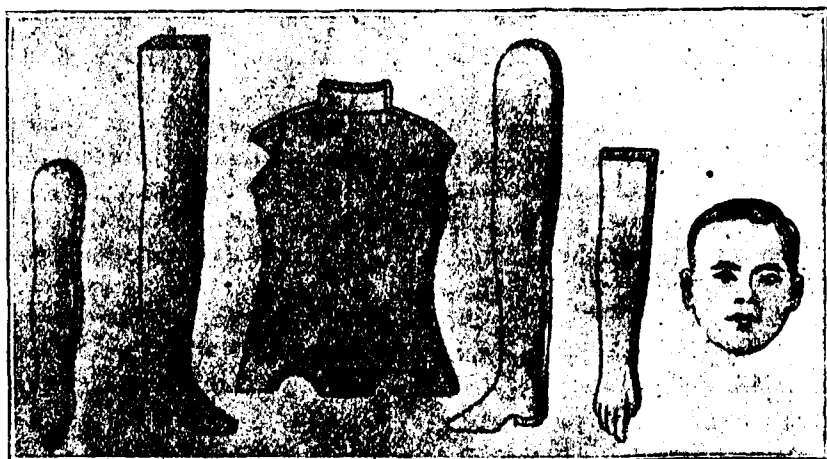


FIG. V: MANIKIN.

about 7 millimeters thick. The size of the pieces are:—body, 11.6 x 6.7 centimeters at the widest points; legs about 13.2 centimeters long; arms about 4.2 centimeters long. The wood is varnished on one side and a few lines are painted to represent eyes, nose, mouth, cuffs, shoes, coat, collar, and buttons."

Note that the fitting of the arms and legs is rectangular on one side and semicircular on the other and that this is opposite for the legs and the arms, the rectangular arm being on the side of the semicircular leg.

Care must be taken that the puzzle is not together when the child comes into the room and that others do not see it before-

hand. The body piece is in the centre, the legs on the opposite sides of the body to which they belong and the arms similarly, next to the legs, the head at the right hand side on the outside. Pintner and Paterson use the formula, "Put this together as quickly as you can". They give a strong caution that nothing must be said about its being a man. Some idiomatic equivalent to the above formula must be found. We have had to use the expression, "Make it into a form". This no doubt exceeds the authors' direction but we found it the only stimulus that proved effective.

The test is scored as follows:—

"A complete performance, absolutely accurate—5 points.

One or both arms up or out, *i.e.* not exactly fitting in the joints—4 points.

One reversal, *i.e.* right arm for left arm and *vice versa*, or right leg for left leg—3 points.

Two reversals, *i.e.* both arms and both legs reversed—2 points.

Legs or arms interchanged or arms at sides, or any other result which looks like a man—1 point.

Failure to see that it is a man—0 points." (Pintner and Paterson).

The time limit is five minutes but all except extreme defectives will achieve a result which they will declare satisfies them in a minute or two. The child must not be helped. If he fails to start one may say once or twice, "Go on, put it together." Do not ask him if it is right as that suggests to him that you are not satisfied with the result. When he leaves off ask him if he has finished but do not hurry him or force him to leave off as long as he is still thinking about it. There is usually no difficulty about this for after a little manipulation a child will sit back and turn to you, indicating that he has done what you asked him to do.

We consider this the least satisfactory of the tests we used. It is subject to too many chances. A subject may come into the room and find the puzzle all set up or he may have received a hint from someone who has done it before him. He may even set up a perfect figure entirely by accident. If parents learn about the test beforehand a child can be easily coached in it. If a child has one reversal he scores three points and for two reversals he scores two points. Now it is obvious that he has failed to see

the relationship between the block and its appropriate socket in one case and if he has been successful in getting one or the other in its proper socket it must have been largely accidental, for his failure in the other pair of limbs indicates that he has not perceived the different shapes. The score range is also too small. It is not very helpful to sort your applicants into six groups only. If a distribution graph is plotted from the table giving our scores for the manikin it will be found to depart radically from a normal distribution. Its average correlation with other tests is low. Still we have included its description thinking it would serve as an example of an unsuitable test. If a larger battery of tests is used it may safely be adopted for its influence in the final score would then be less but with so few tests as we use it was probably too large a factor in the final result.

TEST 8. CUBE TEST.

Five wooden cubes, smoothly finished, about an inch and a quarter across are used for this test. Four of these are placed in front of the subject about two inches apart in an even row. The examiner holding the fifth cube in his hand is seated, preferably by the side of the subject. If he sits opposite, he will need to use a little extra care in giving the test and observing the result. The formula is, "Watch carefully and then do as I do". We have used the words, "As I do, you do". The test is always easily comprehended. The examiner then taps the four cubes in a certain order according to the table given below at the rate of about one tap per second, always beginning with the cube at the child's left. He then lays down the fifth cube in front of the child midway before the second and the third cube and says, "Do it". If seated beside the child the examiner must be on the child's right, otherwise there is danger that his hand will come between the child and the blocks and obstruct his view. The taps must be absolutely even and monotonous, with no suggestion of rhythm. The examiner must be absolutely certain of the order he is going to use each time so that there will be no halt. It will be well for the examiner to try this test out on himself several times with the aid of a friend so that he may appreciate the manner in which it must be given. It is a test requiring tremendous concentration and a very slight disturbance will have a large effect on the result. It is an excellent test but requires great care and skill to administer.

Numbering the cubes from the subject's left to right 1,2,3,4 the following is the order used.

A. 1 2 3 4;	B. 1 2 3 4 3;	C. 1 2 3 4 2;
D. 1 3 2 4;	E. 1 4 3 2;	F. 1 4 3 2;
G. 1 3 2 4 3;	H. 1 4 3 2 4;	I. 1 3 1 2 4;
J. 1 4 3 1 2 4;	K. 1 3 2 4 1 3;	L. 1 4 2 3 4 1;

The test is continued until the child fails three lines in succession and even beyond if there seems a possibility of success. Few children, or adults for that matter, are successful beyond the ninth line. The examiner will have the order for each tapping written out in large figures on a card which he must be careful to keep from the view of the child.

One point is scored for each successful repetition of the order of tapping.

GENERAL DIRECTIONS.

The examiner's first concern must be to put the children at ease and capable of doing their best. If they are brought into a center it will be well to provide food for them and in every case the examiner should make sure that he is not working with a starving child, whose mind is distressed with hunger. We usually begin by seating the children and enrolling them. This must be done expeditiously. Information that is not readily available must be secured later for it will not do to fret the children by keeping them waiting. The seats are numbered and each child impressed with the necessity of remembering his number. The essential point to insure identification is that each score card should bear the child's name, father's name, village, and examination number. The examination number is best given with an initial or abbreviation to designate the place. This number must be on every paper before it is taken up. The cards must then be collected and while the group tests are being given an assistant may be looking them over and interviewing parents or teachers to secure missing information. Before the individual tests are given each child must be given his card which he will present to each examiner as he takes each test. When the card is completely filled in he may be dismissed and sent off the premises. Effort should be made to dispose of the younger children first and if possible those who are kept waiting should be kept amused by quiet games.

Before commencing the group tests open the class with the usual exercises of song and prayer. If there is a sense of strain put the children at ease by telling a story and create an atmosphere of cheerfulness. Let the day be more of a picnic than an ordeal to them. Remove any weeping child from the room before he infects others. Keep the room as free as possible from all visitors. It is well, however, to invite two or three influential and intelligent outsiders to be present. They will absolve you from suspicion of secrecy and will be committed to the defence of the tests before the public. But they must very clearly understand that they are not to interfere. It is not necessary to give explicit directions how to arouse the children to give their best and to insure that they work freely and without strain or nervousness. Experienced teachers will know how to secure this. There should be complete relaxation between tests.

It is scarcely necessary to say that children must be comfortably seated so that all have uniform opportunity. They may be asked to kneel before benches and work on the benches. Care must be taken that there is no opportunity for copying. Good pencils must be supplied, soft enough to make a clear mark and strong enough to be not easily broken. Children not accustomed to lead pencils will break points and there must be an abundant supply of spares.

In the individual tests the same care must be taken to put the child at ease. If a missionary is conducting the test he must be sure that the child understands his pronunciation. Have a little preliminary conversation as to his home and family and introduce the test quite casually in such a way as to awaken his interest rather than his fear. Be careful about touching the child. A touch meant to be reassuring is more apt to embarrass. Examiners need to be keen students of child nature and quick to detect moods. Do not look at a child earnestly in the eye. The safest rule is to contrive to get his mind entirely absorbed with the problem of the test, allowing him to forget the examiner and everything else. If you are too personal you will kindle emotions which will interfere with the test. One must strive to attain a comparative uniformity in relationship with all subjects.

The sample score card requires no explanation. The use of it will become apparent as we discuss the scoring in Part II.

PART II.

SCORING THE TESTS.

A description of the mathematical and statistical treatment of the results of the test within the limits of this pamphlet must necessarily be a bit dogmatic. To explain the reason for each step and the derivation of every formula would carry us too deeply into higher mathematics and hinder rather than help those who want a few practical directions. At the same time there are certain processes that must be mastered if tests are going to be of any value. It is the application of statistical science to the interpretation of mental tests that has made them of value. Before taking up the general treatment of the results it will be necessary to discuss the special points in connection with each test.

TEST 1. READING.

This may be very simply scored by counting two points for each exercise correctly done and allowing one point for an answer partly right and partly wrong. It may be somewhat difficult to decide when an answer is right and when wrong. An answer which consists of the statement copied word for word may be allowed one point for it argues some ability to read and we cannot positively state that the pupil did not comprehend the statement and question. An answer which exceeds the statement, which is supplied from the boys' general knowledge containing some of the information of the statement but not all must be variously judged. The examiner must ask whether it is likely that the boy read the statement and understood it or whether he merely read the question and answered it out of his own knowledge. Most of the answers will present no problem in scoring. The effort should be to score as far as possible in terms of zero or two.

This simple method of scoring, however, has certain drawbacks and a more accurate valuating is to be preferred. The exercises differ in difficulty and the boy who does No. 8 is entitled to more than two points as compared with the two points earned by doing No. 1. We may ascertain the difficulty of each exercise by using as a measure the number of children who answered it correctly. If 100 per cent. answered No. 1 correctly it is evident this is a very easy exercise and if only 10 per cent. answered No. 8 it is clear that this one is very difficult. How much more difficult ;

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ten times more difficult? By no means. The problem is not so simple as this. The proper value to assign to each exercise on the basis of the percentage of pupils answering it correctly is given in the following table. This table is based on the Probable Error and while its derivation cannot here be explained its use is comparatively simple.

Write the numbers of names of the pupils at the left hand margin of a sheet of ruled foolscap. Rule nine columns vertically next to these. Enter in each column the score for each of the eight exercises, two if correct, one if partly so, and zero if wrong. Add each vertical column and divide by 2. This will give us the number answering each test correctly. Ascertain the percentage of children answering each exercise correctly.

TABLE I.

(FROM McCALL "HOW TO MEASURE IN EDUCATION.")

Showing the P. E. values above or below the Median corresponding to the per cent. of pupils correctly doing a given Test Element. Before Reading, Subtract the per cent. correct from 50 per cent. Examples: 83.60 per cent. did test element A. 50 per cent. - 83.60 per cent. = 33.60 per cent. = 1.45 P.E. BELOW MEDIAN. 2.15 per cent. did test element B. 50 per cent. - 2.15 per cent. = 47.85 per cent. = 3.0 P.E. above the Median.

P.E.	.00	.05	P.E.	.00	.05	P.E.	.00	.05	P.E.	.00	.05
0	0000	0135	1.5	3441	3521	3.0	4785	4802	4.5	4983	4989
1	0269	0403	1.6	3597	3671	3.1	4817	4831	4.6	4990	4991
2	0536	0670	1.7	3742	3811	3.2	4845	4858	4.7	4992	4993
3	0802	0933	1.8	3896	3939	3.3	4870	4881	4.8	4994	4994.6
4	1063	1193	1.9	4000	4057	3.4	4891	4900	4.9	4995.2	4995.7
5	1321	1447	2.0	4113	4166	3.5	4909	4917	5.0	4996.2	4996.6
6	1571	1695	2.1	4217	4265	3.6	4924	4931	5.1	4997.1	4997.4
7	1816	1935	2.2	4311	4354	3.7	4937	4943	5.2	4997.7	4998.0
8	2053	2168	2.3	4396	4435	3.8	4948	4953	5.3	4998.2	4998.4
9	2291	2392	2.4	4472	4508	3.9	4957	4961	5.4	4998.6	4998.8
1.0	2500	2606	2.5	4541	4573	4.0	4965	4968	5.5	4999.0	4999.1
1.1	2709	2810	2.6	4602	4631	4.1	4971	4974	5.6	4999.2	4999.3
1.2	2908	3004	2.7	4657	4682	4.2	4977	4979	5.7	4999.4	4999.5
1.3	3097	3188	2.8	4705	4727	4.3	4981	4983	5.8	4999.55	4999.6
1.4	3275	3360	2.9	4748	4767	4.4	4985	4987	5.9	4999.65	4999.7

The subsequent procedure is best illustrated by giving our own treatment of our results.

In our reading test the result was as follows:—

TABLE 1.

Exercise Number.	1	2	3	4	5	6	7	8
Total points scored by all pupils.	363	362	369	304	310	239	276	197

Since each exercise counted for two points, in order to find the number of pupils answering each exercise correctly the total score is divided by 2 and the percentage of correct answers calculated.

TABLE 2.

Exercise Number.	1	2	3	4	5	6	7	8
Pupils answering each exercise correctly.	181	181	184	152	155	119	138	98
Percentage of whole.	79.7	79.7	81	67	68.3	52.4	60.8	43.2

It will be noted that the exercises were not progressively graduated from one to the next, exercise 3, for example proving easier than Exercise 1 and 2. These percentages are now subtracted from 50 per cent. yielding,—

TABLE 3.

1	2	3	4	5	6	7	8
-29.7%	-29.7%	-31%	-17%	-18.3%	-2.4%	-10.8%	6.8%.

Reading off the Probable Error values from Table 1 we get the following:—

TABLE 4.

Exercise Number.	1	2	3	4	5	6	7	8
P.E. Value of the difficulty of each exercise	-1.23	-1.23	-1.35	-.65	-.71	-.09	-.41	+.25

Our next step is to transform these values into a scale which will show the distance in difficulty from zero for each exercise. To find the zero point we inquire how many children failed to answer any exercise, that is scored zero marks. This we found to be 24 or 10.6 per cent. of the whole. The P.E. value for 10.6 subtracted from 50 per cent. is +1.85. Thus the zero point is 1.85 P.E. distance from the Median point. If the zero point of difficulty 1.85 P.E. from the Median and the 8th exercise is .25 P.E. distant from the Median the 8th Exercise is 1.60 P.E. distant

from the zero point that is the algebraic difference between 1.85 and .25. Similarly subtracting algebraically the P.E. Values obtained above from the P.E. Value of the zero point we get

TABLE 5.

Exercise Number	1	2	3	4	5	6	7	8
	3.08	3.08	3.20	2.50	2.56	1.94	2.26	1.60

These values need not be taken as they stand as the decimals would create much labour in the scoring. It will be sufficiently accurate if we approximate the ratios secured. Obviously Exercise 8 scoring 1.60 difficulty is about twice as difficult as Exercises 1, 2 and 3 scoring 3.08 to 3.20. Let us score 2 marks for Exercises 1, 2 and 3. These three exercises are about $\frac{5}{6}$ ths as difficult as Exercises 4 and 5. This would make the value of Exercises 4 and 5 to be 2.4. We can choose between assigning 2 marks for Exercises 4 and 5, or for purposes of gradation since they are clearly slightly more difficult than Exercise 1, we may call it 3 marks. The average of exercises 6 and 7 compared with Exercise 1 according to this same method would work out at very nearly exactly 3 marks but since we have already assigned a value of 3 to Exercises 4 and 5 compared with these two exercises the value of exercises 6 and 7 is very nearly 4 points. Comparing Exercise 8 with Exercises 6 and 7 we find its value to be about 5. The following value may then be assigned to each exercise:—

TABLE 6.

1	2	3	4	5	6	7	8
2	2	2	3	3	4	4	5

Going through our original list we may now score the full value for each exercise as thus determined. For every exercise to which we originally marked 2 credits we give the values as in Table 6 and half these values to each exercise marked 1 credit, and add up the pupil's total score for the test.

See McCall's "How to Measure in Education" Page 258 ff. for a fuller description of this method of scaling a test.

TEST 2. ARITHMETIC.

The score here is simply one for each example correct.

TEST 3. PICTURE COMPLETION.

Half points may be allowed if the name of the missing part is written instead of sketched or if other features are added to the picture besides the missing part. Otherwise one point is given for each picture in which the missing part has been indicated clearly.

TEST 4. MAZE.

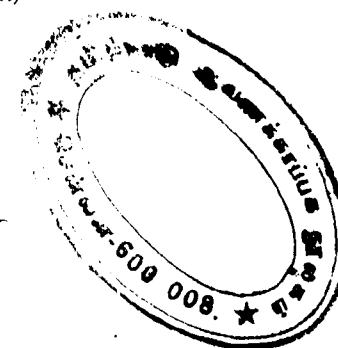
A few papers will require a little discriminating judgment. One must make allowances for unskilful fingers if the intention is clear. Retracerings are not an error as long as it is still possible to follow the pupil's intention. False moves are in themselves penalties in the time they cost and ability to correct one's movements is a valuable element in intelligence. Very small breaks in the lines may be allowed if the continuity of the track is clear. One point is scored for each square correctly traversed.

TEST 5. DOT PATTERN.

One point is allowed for each group correctly marked. Occasionally a pupil may cross out other than the correct dot where there is some justification for doing so owing to inferior printing. Where a child has acted reasonably we should give him credit for it.

The performance tests have already been scored and require no further description.

(To be continued.)



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1845-4

Some Moral and Spiritual Problems of the Indian Christian Child

BY MISS M. E. SIMPSON, R.N., SIRONCHA.

THIS article heading is usual enough. Ever since I entered India and even before, I have heard many discussions on the various problems that surround the Indian Child. Indeed rarely do we find two educationalists in conversation but that the conversation turns to such problems. My two and a half years in India have been very largely spent in dealing with Indian Children from a physical view point. The extreme famine conditions with the attending ills for several months after my arrival in India, after that, epidemics of chicken-pox, whooping cough, mumps, tuberculosis, malaria, and general weakness from excesses of which more will be said later, all have tended to keep the hospital more or less filled with children from one to sixteen years of age, which children it has been my privilege to study, to love, and in many cases to help to a fuller realization of the relation of their own bodies, minds, and souls to the great and Eternal Father. For more than a year it has been understood by the children of our compound that my time is always sufficient to give them whenever they need help—physically, mentally or spiritually. Many times I have been called on for sympathy and help for a bruise or a cut or a scorpion sting but equally often to deal with a problem with which a little mind could not grapple successfully. In these conversations with our dear little girls I have discovered that the problems that we missionaries and other educationalists are trying to solve for the Indian child sink into nothingness compared with the terrific problems which the child, or at least the little girl, is confronting and with which she is grappling without knowledge or means of obtaining such, and Oh! so often without sympathy or help from those who could perhaps in a few moments give such light as would bring a little soul out of the darkness of ignorance and sin into the glorious light of a truer knowledge of God's wonderful wisdom and to a life of victory in His name.

I refer to the problem of sex. I hope all who read this article will at once procure a copy of the book, "Men, Women and God," by The Rev. Herbert Gray, M.A., D.D., which is obtainable from the Association Press, Calcutta, and read it prayerfully, with hearts open to understanding. Then try and see with me the problem that I have found the Indian child—and I suspect the entire Christian community of India to a greater or lesser degree—to be facing.

Hinduism I have endeavored to understand so far as I have been able, but as yet I do not claim to be able to discuss its various features intelligently. This much however is clear to even the most casual observer—sex is, in Hinduism, to a greater or lesser extent worshipped. It has a decided religious significance in theory at least. We all know that sex matters are not a secret from childish ears, and those of us who have endeavored to find out the content of the child mind on these matters have found our hearts torn asunder at the vileness of our findings.

On the other hand, as Mr. Gray tells us, the very word sexual is distasteful to many good people of the western world. Probably indecencies and excesses of mankind have to their eyes so defiled the subject that they doubt whether it is either right or useful to talk about the matter at all. So they preserve a modest but entirely foolish and *ultra* prudish silence on the subject, leaving the world to gather that they rather doubt the wisdom and certainly very much doubt the modesty of the Almighty in creating us sexual beings. The attitude of some would lead us to believe that the Almighty did not so create us but that the devil put in the sexual element after God had finished us, as tradition says he scattered bones in the fishes.

Now imagine the Indian child coming from an environment in which sex was worshipped to a greater or lesser degree, where there certainly was no reticence about discussing it and in many cases (but not all) the little mind is filled with unspeakable vileness on the subject. Such a little girl is baptized and finds herself in an environment where there is no teaching on the subject only the silent inference that the whole matter is entirely immodest and perhaps bad. The result is inevitable, absolutely logical, and no thinking man or woman should be surprised if every child is ruined physically, weakened mentally, and damned spiritually thereby. God is wonderful in His loving kindness and often gives light that we know not of when the light that He has given us has been carefully hidden under a bushel.

I refuse to think our Sironcha kiddies are in any respect worse than other children who have had the same advantages. In fact with the maternal love that I have found growing in my heart for the children under our care I am inclined to think them very much the nicest and surely the most lovable kiddies in the world, and their shortcomings only make me realize the more what a marvellously helpful thing it is to have known the magnanimity and love of God from babyhood and through childhood to have been taught to reverence His wisdom and His holiness.— Yet as we investigated the moral conditions of our boarding-school girls last year we only found three between the ages of one and sixteen years who were not to a greater or lesser extent trying to satisfy their sexual desires abnormally, many of them to such an extent that their bodies, minds, and souls were injured beyond the power of words to describe. These three girls, it is interesting to note, were admitted from sudra homes at or after adolescence and had accepted the western—let us not call it Christian—theory of silence. Their bodies they had kept pure but their ideas of sexual relations were as incorrect as those of many European friends. A few words served to dispel the false modesty and enabled them to discuss the matters pertaining to sex frankly as it is natural for the Oriental to do, and a short talk helped them to see that which instinct should reveal to us all, that “God saw everything that He had made and behold it was very good.”

One little girl of ten had not been trying to be pure because she believed herself damned already from the fact that her step-father had assaulted her when she was five years old. Believing herself to be hopelessly lost, how could she strive? Oh! the cruelty to have allowed her to bear such a burden alone for the four long years she had been in the boarding school! You should have seen the joy that filled her soul until it shone in a perfect radiance from her face, when she found that God could and would forgive her and that we understood and loved her, as she said, “more than ever before”.

Another girl of eleven had injured her health to an alarming degree in dual masturbation, through a perfectly normal desire to be popular and to be loved. She realized that there was a relation between her sexual desire and love, and though she knew well that this abnormality was wrong yet she was willing to sell her soul if necessary for the love her little heart craved. Through the

seriousness of her physical condition the moral trouble was discovered but for days any approach to the subject was met with sullenness and her moral conduct became daily worse instead of better. Finally punishment was resorted to and after a rather severe whipping she confessed to her immorality and gave her reason as stated above. I spent perhaps an hour explaining to her how the practice was ruining her health and trying to show her how abnormal and mistaken her ideas were that true love is from God and that it can only be won through purity and goodness. She seemed unconvinced and said she could not leave off the habit. I talked a few minutes about temptations and how to overcome them and pausing asked if she had a question. It came direct and to the point; “Do you mean you white people have temptations like this?” And I, being ignorant of the fact that Europeans considered it unwise to make such confessions before natives, answered her with equal frankness; “Of course, dear, all people have such temptations, but those who understand the harm that such things do and are taught how to overcome, never yield to such temptation”. She looked at me a moment, faith and distrust striving. I returned her gaze frankly and kindly. Faith won. She threw her arm around my neck and with tear-bright eyes said, “I’ll never do it again, Amma; I didn’t think you knew anything at all about it. But if you *have* been tempted and have overcome you *do* know, and if you will help me I *will* be victorious too”. I promised my help and it has often been asked for. Defeat and victory have alternated but the lengthening periods of victory lead us to hope for a continuous victory.

One little girl of twelve seemed absolutely incorrigible. At first she was the sweet hypocrite type, then when she found that was not tolerated resorted to open insubordination of all sorts. At last I found that she deliberately wanted to go to hell because her mother, one of our fine Christian women, died while in an influenza delirium and was said to have been demon-possessed and had therefore lost her soul. And the child wanted to go to her mother even in hell! I can’t blame her, can you? The joy that filled her heart when I explained the causes of delirium and assured her that her mother was in Heaven waiting for her! A few days ago this little girl came into my office and asked me to explain some of the more sacred things of life which I did frankly and freely. At the close she said “May I pray?” I nodded, and standing with head bowed by my side, she prayed something

as follows: 'Our Father, I thank Thee that thou hast revealed to me Thy perfection and purity. I thank Thee that thou hast saved me from the evil and sinfulness which filled me a year ago. I am glad that Thou hast helped me to see the purity of Thy creation. I thank Thee for the faith that Thou hast planted in my heart toward Thee and toward the missionaries that Thou hast sent to help us. I thank Thee that without fear or shame I can come to them and ask about these things (i.e. life problems) and that they guide me in this as in all things in Thy way. I know that I must strive long before I am perfect as Thou art perfect, but Lord help me to be always pure.' God bless her and keep her! How richly I feel my time spent for hours has been repaid.

One little girl of six.....convalescent from fever in the hospital, avoided me very noticeably for several days. One day I felt that she needed me so I called her and said, "Why do you go away when you see me coming? You should say Salaam each day." Receiving no answer, "Come" I said, "What bad thing have you done that you can't talk to me?" Still no answer; I let her stand and think while I proceeded with my work. Later I again tried conversation, but with no better results. Finally after several hours, in desperation I said, "Will you answer me or must I whip you?" Imagine my surprise when she said, "You must whip me!" I had no wish to whip her. She was like a little fairy or a blossom! She was so frail! So I argued and coaxed but to no avail. "You must whip me", she persisted. I picked up a short piece of rubber surgical tubing and gave her a few cuts but she never winced. "Whip till it hurts bad; I can't tell unless you do". Then I began to feel that perhaps her little soul was being torn by something real and deep, and I let the tube sting well, though I think every blow cut my heart deeper than her little body. At last, trembling, she told me of how a cooly woman on the place had been using her to satisfy her own evil and abnormal passions in a way too vile for print, and then had threatened the child's life if she told. No wonder she needed a bit of a sting on her skin to give her courage to tell. The moment she was sure I understood she jumped upon my lap, threw her arms about my neck and with a face filled with joy of victory exclaimed, "Now God will forgive me, won't He? Isn't it written that if we confess He will forgive us from all sins? Even if she does kill me it doesn't matter for I can go where Jesus is now, can't I?"

I expect you are wondering how early instruction is needed or how early a child imbibes impure ideas. I too wondered and made one attempt to find out. We had a wee, chubby tot of three years in the baby fold who was admitted when 16 or 18 months old. She was always ready to talk and talked well. I guided her baby prattle so that she told me at least a part of what she knew, probably not all, but it was an abundance of sexual knowledge, vile and distorted beyond recognition. At that time the defilement seemed to be in her mind only her baby soul still shone through, sweet and pure in His own image. The year has however brought a knowledge of good and evil, and though the little mind is I believe no worse and I hope better, yet the baby soul is not so frank and open. God help me to help her with her problems!

This is not an exhaustive treatise of the work done in Sironcha on the lines of purity in the last year. It scarcely mentions Miss Fales' efforts day and night for the physical health, mental purity and spiritual victory of the hundred and forty girls in her care. It doesn't take up the lecture by Dr. Dodd on the physical results of impurity. It does not in fact deal at all with how we have all been trying to meet the situation that we found to be sapping the life of our Christian community. It is merely a few jottings of my experiences of the past year hoping that it will help some who are working for the uplift of Indian child life to see that Indian children are not bricks to build from, but are our own dear little sisters and brothers (for the same problem is found among the boys) groping with a heritage of wrong sexual ideas, confronted with a wall of silence which, in its inference, is untrue and misleading. Let us, like true citizens, admit the sovereignty of Him we claim to serve; sex being an ordinance of God cannot be abolished by man. Therefore let us clean up our own storehouse of thoughts and face squarely the fact that God's most sacred ordinance is holy, infinitely pure, and perfect, and that our traditional reticence on this subject is wrong, and often very cruel. If our Indian children are entitled to instruction from all the available knowledge of the ages in regard to the arts and sciences, are they not much more entitled to instruction from Christendom's fund of knowledge regarding God's laws of purity for the protection of their own bodies, minds, and souls?

Field News, Notes and Comments.

I

Education and Industrial Work *

SEC. III.—GENERAL RECOMMENDATIONS FOR THE ADOPTION OF CENTRAL CONFERENCE

1. Composition and Duties of the Educational Council.

ARTICLE III.—COMPOSITION

The Council shall consist of a President, who shall be one of the Bishops, resident in Southern Asia, and seven members one of whom shall be from the Educational Secretaries to be designated by the Educational Secretaries, one from the Council of Religious Education to be designated by the Council of Religious Education, and the remaining five to be designated by the Central Conference.

ARTICLE IV.—POWERS

This Council shall be the executive of the Executive Board in all educational matters and subject to its direction shall exercise the following powers:—

(1) The Educational Council shall act as a Board of Reference or arbitration between Annual Conference Boards of Education.

(2) It shall give counsel with regard to the location and organization of educational institutions of High School rank or above before they are finally located.

(3) In co-operation with the Conference Boards of Education it shall outline and control the curricula of all schools not directly affected by the Government examinations.

(4) It shall have advisory direction of the Mission Educational Services of the several Conferences.

(5) One of its functions shall be the raising, control, and distribution of inter-conference educational funds.

2. *Children's Day Funds* collected and held by the Annual Conference Boards of Education shall be expended only for loan scholarships awarded to Christian students pursuing courses of study in Colleges, Training Schools, and Special Training School for service in Community Middle Schools; these conditions however shall not apply to Children's Day collections from English Churches.

* Excerpts from the report of the committee to the Central Conference.

3. *Educational Accounts*.—Inasmuch as the Annual Conference budgets presented to the Board of Foreign Missions required a classification of the askings under the head of evangelistic and educational needs, and the appropriations are made on this basis, and in view of the necessity of having a clear record of expenditures on education, steps should be taken to insure the keeping of accounts by the District Superintendents so as to indicate the receipts and expenditures for educational work.

4. *Mission Educational Service*.—The attention of annual and Mission Conferences is called to the successful operation of the Mission Educational Service in the Lucknow, North India, and the North-west India Conferences, during the past quadrennium, and they are urged to fully investigate the feasibility of adopting such a service.

5. *Methodist Education*.—This publication shall be continued and shall become the official organ of the Educational Council of the Central Conference of the Methodist Episcopal Church in Southern Asia, and for the year 1924 it shall be financed as now by the Conferences but thereafter it shall be included in the general educational budget.

6. *Interpretation of Courses of Study*.—Whereas the wording of Paragraph I of Course of Study No. II for Annual Conferences does not make clear the meaning of the words "have taken the Government Matriculation examination", these words shall be altered to read, "having satisfactorily completed a High School Course and appeared for the Examination".

Under section 3 of Rules for Annual Conferences where the words "having taken the Government Matriculation examination" appear they shall be altered to read "having satisfactorily completed a High School Course and appeared for the examination". (Referred to the Commission on Courses of Study).

7. *Primary Boys' Boarding Schools*.—We call attention to the action taken by the Committee on Consultation of the Board of Foreign Missions and of the Woman's Foreign Missionary Society, date of March 21, 1921.

"A. That this Committee on Consultation reports to the Conference Boards of Education in India that it is not prepared to accept the principle involved in the resolution of Central Conference concerning the transfer of all primary education to the supervision and direction of the Woman's Foreign Missionary Society, holding that the determination of the educational policy and program in India belongs to the whole group both in India and at home."

"B. That as a provisional and temporary measure in dealing with the education of boys in the primary grades, this Committee

approves such adjustments as to teachers, supervision, and finance, in local situations, as may be found expedient by the general or local authorities."

"The above action was concurred in by the Committee of Education of the Board of Foreign Missions, and by the Foreign Department of the Woman's Foreign Missionary Society."

In view of this action we reaffirm and strongly recommend the policy of having our Lower Primary Boarding Schools for Boys placed under the supervision of women wherever expedient, and,

We recommend, that the putting into effect of this policy be placed in the hands of the Board of Education of each Conference, subject to the approval of the Finance and Field Reference Committees.

8. *Register of Educational Policy.*—We approve the adoption of the Register of Educational policy of the Board of Foreign Missions for the Central Conference of the Methodist Episcopal Church in Southern Asia provided that it shall not be construed to delegate to the Board of Foreign Missions the sole right to determine matters of educational policy for the Methodist Episcopal Church in Southern Asia. (This was referred to the Conference Boards of Education for consideration and they shall then report to the Executive Board.)

9. *Industrial Education.*—In view of the changing conditions in India and the absolute certainty that the future development will very largely be along scientific and industrial lines; the fact that ever-increasing numbers of our young men are becoming interested in vocational subjects; that Government is seeking to meet the need for such training by providing well-equipped Industrial and Vocational Institutions in ever-increasing number; and further that our large Christian community requires as a part of its training a share in every movement that would help to solve its economic dependency, therefore,

Be it Resolved, (1) That we endorse the continuance and further development of such industrial institutions of our church as are now at work in the land so as to bring them into line with other institutions of a similar nature;

(2) That we urge the Board of Foreign Missions to make adequate financial provision for such institutions in the budgets of the various Conferences and for the trained missionary supervision which will insure their continued maintenance on an efficient basis;

(3) That we do not deem it advisable to undertake at the present time any large, central institution of this nature, but rather to concentrate more intensively on those already in existence;

(4) That we endeavour as far as possible to link up vocational training with our Primary and Middle Schools so as to train our youth

to work with their hands and to acquire such practical knowledge as will help to radically improve present rural conditions;

(5) That our Educational Secretaries be requested to make an intensive study of methods now successfully used with a view to making a beginning with such training wherever possible;

(6) That we as a church take advantage of every opportunity offered by the Government in the matter of grants and scholarships which it is prepared to give, and that we avail ourselves to the fullest extent of such institutions as now exist under the direction of Government by providing hostel accommodation for Christian students who may desire to attend such institutions;

(7) That we avail ourselves of the large opportunities offered by the factories and industrial establishments in the commercial centers of the country for the learning of the various trades and that we provide for our Christian young men entering such institutions the accommodation and moral guidance which will keep them loyal to the Church and to our Christ;

(8) That we make a greater effort than heretofore to encourage our young men to enter upon a commercial or industrial career while they are yet in the lower grades of their school work.

11. *Medical Council.*—We heartily endorse the recommendations of the Medical Council of the Central Conference in respect to the physical condition of our schools, such as the need for maintaining and tabulating in a systematic way the weights and measurements of our students, more particularly of our Boarding Schools; the urgent need for including courses in hygiene in our Normal Institutions, so that our teachers may go out to their life work with an intelligent desire to co-operate in the program for the advancement of health, and in calling attention of capable young people in our institutions to the social and vocational value of nursing as a profession.

13. *Secondary Education.*—Whereas the last Central Conference recommended the raising of a Central Educational Fund and during the quadrennium some attempt was made by some of the Conferences to do so but no detailed plan was made in regard to it, and,

Whereas there is a desire that some more definite and detailed plan shall be adopted in regard to it, therefore,

Be it Resolved that the following plan be adopted:—

Plan for a Central Conference Educational Fund.

There shall be a Permanent Educational Fund to be raised and administered in the following manner:—

(1) The fund shall be raised by collections, contributions, bequests, etc., not only from the Southern Asia field, but from special gifts, appropriations, etc., from the Home field.

(2) The proceeds of this fund shall be placed at interest and the interest shall be used when needed for providing loans to needy and deserving students attending our schools of higher education, such as Colleges, Theological Schools, Technical Schools etc.

(3) The general control of the fund shall be vested in the Educational Council. This Council shall *prorate* the income of this fund, not contributed by the Annual Conferences of Southern Asia, to the different Conferences and shall place to the credit of the different Conferences the amounts contributed by those Conferences.

(4) It shall be one of the duties of the Educational Council to increase the income of this fund in every way possible.

(5) There shall be a treasurer of this fund to be chosen by the Central Conference who shall receive amounts intended for this fund, and administer the fund as directed by the Educational Council.

(6) The funds held to the credit of the different Conferences may be loaned to deserving students on the recommendation of a Committee of at least four from the Boards of Education of the Conferences concerned. The treasurer of the fund shall see that the students receiving such loans shall sign proper agreements for the return of the loans.

(7) The Annual Conference Boards of Education which recommend the loan shall be held responsible for the collection of these loans.

14. *Policy of Co-operation in Higher Education.*—Whereas, the present day situation with regard to higher education affords entry into this field, and

Whereas the producing of a vigorous, constructive, and Christian leadership in all departments of thought and life depends upon the influence of Christianity in higher education, therefore,

Be it Resolved, that this Central Conference approves of the policy of the co-operation of the Methodist Episcopal Church in Southern Asia with those institutions in each Provincial area which shall best serve the interests involved.

Participation in Union Educational Enterprises.

Whereas the advisability of participation in union enterprises in the Punjab and Burma has been proposed to this Central Conference, and

Whereas this body does not feel itself competent to pronounce authoritatively on that matter,

Be it Resolved, that the proposition to enter such union enterprises be referred to the Educational Council, authorizing them to consider and decide this question in the light of the policy of co-operation adopted by this body, and to communicate such decision to the Board of Foreign Missions and to the Woman's Foreign Missionary Society for information and co-operation.

15. *Primary Education.*—In view of the waste of time and loss of interest in the primary grades due to inefficiency of untrained teachers we recommend that those in charge of primary education study carefully the possibilities of (1) the Beacon Method, (2) Teaching Primary Reading by McKee (Methodist Education Reprint No. 2), (3) the Village Teachers' Journal published at Moga and (4) such other publications as may be available.

And we further recommend that training institutes be held annually in all districts with special consideration given to the needs of the primary teacher.

In view of the fact that only a small proportion of children educated in Central Boarding Schools return to their villages, and that therefore such a system of education touches only a comparatively few of the Christian community we recommend that,

(1) Village education be given a larger share of attention and that District Superintendents make provision to carry on experiments along lines similar to that now taking place at Moga.

(2) That so far as possible provision be made which will enable Christian children in all villages to study at least through the lower primary grades.

(3) That in cases where no other provision can be made for teachers, those workers appointed to evangelistic work be required to give some time to educational work (in so far as can be done without interfering with evangelism).

(4) That as rapidly as possible indigenous schools be raised to primary grade and trained teachers be provided.

(5) That every possible effort be made to encourage villages to support their own schools.

(6) That where possible a final examination and appropriate graduation exercises be arranged for all pupils passing the lower primary grade in village schools.

In view of the increased attention on the part of Government to primary education, and to the education of the depressed classes, and in view of the proposed legislation for compulsory education we recommend,

(1) That school managers keep in close touch with all movements in this direction.

(2) That where possible Christian representation be secured in School Boards when established.

We further recommend that our Educational Secretaries keep all educational workers fully informed as to new experiments and modern methods of primary education.

16. *Educational Secretaries.*—Recognizing the diversified character of our educational work we hereby strongly emphasize the need which exists that it should receive the benefit of research and investigation in departments of education, and, herewith direct that wherever such a need arises the Educational Secretary responsible for the department should give to it the benefit of personal advice and specialised opinion; nevertheless, in order that each Secretary may be held responsible for the supervision of educational work of a general character we direct that the Secretaries be assigned to definite territorial areas, and that the Bishops resident in Southern Asia in consultation with the Secretaries determine their residences.

For the present we recommend that an assignment of departments of education be made as follows:—

Miss Montgomery, Hostels, Domestic Economy, Middle schools.
T. C. Badley, Higher Education, Agricultural Education, Buildings.

C. B. Hill, Teacher Training, European Education, Industrial Vocational Education.

Regarding the entire educational work of Southern Asia as a unit, we direct that each Educational Secretary shall be regarded as responsible in the territory assigned for the supervision of Primary and Village education, and for the selection of text-books, and literature, and so far as possible for its production. The Secretary shall also serve as a medium of exchange of teachers for higher education.

We also recommend that Secretaries be assigned to the Conferences as follows:—

Miss Montgomery—South India, Burma.

T. C. Badley—North-west India, North India, Lucknow, Bengal.

C. B. Hill—Indus River, Gujarat, Central Provinces, Bombay.

II

Home Study of Geography

Clark University, Worcester, Mass., U. S. A. offers the following courses in Geography through its Home Study Department:

The Teaching of Geography in the Elementary School.

The Passing Weather.

Climatology and climates of the world.

Industrial and Commercial Geography.

Geography of South America.

Each is of college grade and gives a credit of three semester hours.

III

Educated Mexicans Teach Illiterate Neighbours

The University of Mexico, its patriotic feeling hurt by the number of illiterates which retards the progress of that nation, and knowing that the Government is unable to accomplish within any brief period of time the task of administering elementary instruction to the people, has appealed to the goodwill of all citizens, requesting that every educated person dedicate a few moments to the instruction of him who is not. The initiative has met the prompt response which it deserves. There are already thousands of honorary teachers, and the letters giving account of the results of disinterested effort often contain moving examples of patriotism and love of neighbour. When an honorary teacher has presented for examination by the official teachers and inspectors more than 100 pupils whom he has taught to read and write, the National University of Mexico will issue a diploma stating that fact. Preference will be given to such persons in selecting Government employees. The office of the Director-General of the National Lines of Mexico has promised to allow the certificate or diploma referred to above to decide the question of appointment or promotion where other conditions are equal. The National University furnishes free all the reading charts, blackboards, and other necessities of teaching. Special request is made to ladies of leisure to enter the lists of honorary teachers and to the school officials that the honorary teachers be permitted to use the class rooms on Saturdays, Sundays, and holidays—*EL MONITOR DE LA EDUCACION COMUN, MEXICO* quoted in *School Life* of September, 1923.

IV

Special Register of Efficient British Teachers

Purpose to Raise Standards of the Profession and to Promote Professional Unity. Applications Declined.

BY FRED TAIT

The Teachers' Registration Council was formed in Britain in 1913 for the purpose of unifying the teaching profession, in the manner of the medical and legal professions. The council places on its register the names of those teachers, in any type of school,

who can show they have had a satisfactory training, and can produce evidence of their good character, and are certified by some person in an official position to be efficient teachers.

The official list of registered teachers for 1922 has just been published and contains the names of 70,691 persons. Altogether 73,359 teachers applied to be put upon the register, and the applications of 2,668 were refused. Of the applications, 852 were from university teachers, 43,292 from elementary, 18,832 from secondary, 8,372 from special subject, and 2,505 from private teachers. Thus the council can claim to be representative of all types of the profession.

By its rather stringent definitions of what constitutes a satisfactory training, the council is forcing the public and the education authorities to recognize the necessity of adequate preparation for teaching. This is especially so in the case of teachers of technical and special subjects. Previously the qualifications of this type of teacher had varied enormously. Before teachers can be admitted to the register in future, they must satisfy the council that they have followed a prescribed course of study at an approved institution, or that they have successfully passed an examination conducted by a responsible authority, such as a university or similar body. In the case of teachers of technological subjects the council requires evidence that after reaching the age of 16, such persons have had three years, at least, of practical work in the industry concerned.

Produce Evidence of Professional Training.

Until 1920 the council did not insist rigidly upon the training qualification, but now all applicants must produce evidence of professional training unless there are special circumstances which prevented the taking of such a course. Even in these cases the applicants have usually to attend approved vacation courses before being admitted to the register. The minimum training course accepted is one academic year.

This decision will have widespread effect, more especially on Secondary School Teachers. At present a large number of these have had no training as teachers, but have merely taken an ordinary degree course at a university. In future such teachers will not be admitted to the register unless they take the minimum course. No doubt local education authorities will fall into line and will insist upon their secondary teachers being fully trained.

In England at present the average Elementary School Teacher is better qualified professionally than those in the higher schools.

In the course of its investigations regarding applicants the council has made inquiries into some 2,000 private schools. Only one-third of these it found to be sufficiently efficient to be deemed suitable as providing experience suitable for registration. Although local education authorities have power to close schools which are inefficient and to force the parents to send their children to an efficient private or public school, it appears that few of them are doing so. If as a result of the council's inquiries public opinion is roused to the extent of insisting that all these private schools should be staffed by men and women at least as efficient as those employed in the public schools, it will have done much to raise the status of the British education system. —*School Life.*

V

Dr. Gamewell's Visit

In accordance with the request of the Bishops of Southern Asia, the Board of Foreign Missions made it possible for Dr. Frank D. Gamewell, General Secretary of the China Christian Educational Association, to make an official inspection of our educational work in India and Burma.

Although the problems of Christian education in China and India are different in many respects, the fundamental principles involved in their solution are essentially the same, and the wisdom of profiting by the rich experience of the foremost missionary educationist in China, is manifest.

Fortunately Dr. Gamewell landed at Calcutta in time to participate in the last five days of the Central Conference sessions. This enabled him to come into touch with the work as a whole, and afforded the representatives of the entire field an opportunity to hear his message.

After Central Conference he made an extended tour from Nagpur to Lahore visiting the most important educational centers and meeting the North India and North-West India Annual Conference Finance Committees in their special sessions. His itinerary also took him through the areas of the Gujarat, Bombay and South India Conferences. Probably no other official visitor of our work in India has spent such a strenuous six weeks in such an extensive as well as intensive survey. He stood the strain in a remarkable

manner and expressed himself as highly pleased with the cross-section of the comprehensive educational work seen by him. This result could not have been achieved without the background furnished by his previous visit, supplemented by a general knowledge of educational affairs in India, combined with expert ability to appraise and analyse educational situations with rapidity and ease gained by years of experience in dealing with such matters. Outstanding features of general interest growing out of his comparisons of the educational developments in China and India may be summarised as follows:—

1. For the past decade missionary education in China has been following a policy of intensive rather than extensive development. In one Province alone 150 inefficient schools have been closed and central schools strengthened.

2. Effective emphasis has been placed on *Christian* education. This has resulted in having virtually an entirely Christian Staff and an enrolment of at 60 per cent. Christian students in each school.

3. The entire responsibility for primary education (first four years) of both boys and girls, has been assumed by the Woman's Foreign Missionary Society.

4. Denominational responsibility for Christian education does not extend beyond the High School stage; all College education, including Theological training is given in union institutions.

5. No High School is manned with less than three full-time Missionary teachers, and some have six.

6. No Mission School receives any financial assistance from Government. This simplifies a consideration of "The Conscience Clause".

7. No marked rivalry exists between Government and Mission Schools, and the contribution being made to national welfare by Christian Schools is sincerely appreciated by the Government.

8. Special emphasis is being placed in China on the training of teachers. Dr. E. D. Burton makes this statement; "In my judgment, the Summer Schools and Teachers Institutes have done more to improve the teachers than any other agency".

9. The importance attached to adequate supervision of the educational work in China is shown by the fact that in the North China area alone, four specially qualified full-time supervisors have been appointed, three Americans and one Chinese.

10. American methods and ideals are predominant in Government education in China, as is indicated by the fact that the following American educationalists each spent a year in China, at the

Government's invitation, to assist in evolving the revised system of education:—Dr. Paul Munro, "The organization of education", Dr. John Dewey, "The philosophy of education", Dr. W. A. McCall, "The standardization of education".

11. A widespread desire for education is found throughout all ranks of Chinese society, even the poorest coolie families making great sacrifices to have at least one "scholar" in the family.

12. A higher standard of economic welfare among the common people of China as compared with the corresponding classes in India, results in more liberal contributions for the support of mission schools and a greater willingness to have the Chinese children attend school.

13. The persecution connected with accepting Christianity in India is virtually absent in China, where no serious obstacles such as the caste system of India presents are encountered by the enquirer.

14. The proximity of villages in China make it possible for one school to serve several villages.

15. Social conditions in China make it possible for young Chinese women teachers to conduct village schools, making their homes with the pastor's family.

While not minimising the many serious problems of Christian education in China, Dr. Gamewell stated frankly that we were confronted with still greater and more intricate problems in our task in India, our greatest handicaps being inherent in the caste system, child marriage customs, the purdah system, and the abject poverty of such a large proportion of our Christian community.

We are deeply grateful for Dr. Gamewell's timely visit; his counsels were wise and drawn from a rich experience; his attitude was magnanimous and brotherly and his spirit courageous and inspiring. Valuable as his recommendations will undoubtedly be, the influence of his gracious personality will be registered permanently in the ideals of Christian education in India.

VI

The Ghaziabad Central Institute

Plans for the establishment of a Central Educational Institute at Ghaziabad have been under consideration for several years. The North-west India Annual Conference is to be heartily congratulated upon the adoption of an educational programme of far-reaching importance centering in a modification of the original plans for the Ghaziabad Institute.

Upon the recommendation of the Conference Board of Education, the Finance Committee of the Conference recently approved the following proposals :—

1. The establishment of a Community Middle School in the vicinity of Ghaziabad, to be opened next July, if feasible.
2. The transfer of the Teacher Training School from Muttra to Ghaziabad, from next July.
3. An initial expenditure of Rs. 90,000 for the purchase of about fifty acres of land and the construction of school and hostel buildings, the Principal's bungalow, walls etc.
4. The transfer of the " Middle School " classes from the boys' schools at Meerut, Muttra, Aligarh and Sonapat to Ghazibad, as soon as practicable.
5. The opening of a department for the training of village evangelistic workers as soon as proper provision can be made for such a department.
6. The development of a department of industrial education, as soon as practicable.
7. A request to the Board of Foreign Missions to sanction the appointment of two additional missionaries to this institute, with special qualifications for the work to be done.
8. The appointment of a strong committee empowered to purchase the land and construct the buildings.

Essential features of the proposed Central Institute are :—

1. The maintenance of a rural environment in harmony with village life.
2. Participation of all students in agricultural and industrial projects.
3. The development of the highest type of Christian character.
4. Enrichment of the curriculum through close co-ordination with life activities.

It is expected that many students, after completing the Middle school course, will take either the Teacher Training Course or the Evangelistic Worker's Course and return to serve their rural communities. It is recognized, however, that the general course given must be so thorough and varied that it will provide the most desirable preparation, not only for the lines of service mentioned, but for High School and College courses and specialized industrial, agricultural and commercial training.

The interest and support of the entire Conference will be centered in this Institute and unnecessary over-lapping of the interests of District Middle schools will be eliminated. The District schools

will be free to devote all their resources to the development of strong Upper Primary schools, thereby more adequately caring for that phase of education.

It is hoped that this Central Institute will make a valuable contribution towards solving the fundamental problems inherent in the spiritual, educational and economic regeneration of the vast " mass movement " Christian community in this area. Some idea of the extent of this task will be had when it is realized that of the total Methodist community in India and Burma more than one-third is found within the bounds of this Conference.

Ghaziabad, in addition to being centrally located with regard to this vast community, is at the junction of the three great railway systems of North India, the East India, the North-Western and the Oudh and Rohilkhand railways. Another significant consideration in selecting Ghaziabad for the Central Institute, is the fact that it is only twelve miles from Delhi, the Imperial Capital. The majority of Christians in this area are from the Chamars, many of whom are agriculturalists, the others being engaged in the leather trades. Ghaziabad and Delhi are the great grain and leather marts of North India. These economic factors have an important bearing on the vocational education contemplated and the great possibilities in the " extension work " which is to be an important feature of the activities of the Central Institute.

The general plans for this Institute have the hearty backing of the Board of Foreign Missions, although sufficient time has not elapsed to receive a reply relative to the latest detailed proposals. It is hoped, however, that this attempt to project a bold and comprehensive programme adequate to the wonderful opportunities and grave responsibilities presented by this great Conference, will meet with the heartiest response of all in a position to help in its realization.

Reviews and Quotations

I

STORIES FROM TAGORE. MacMillan, 151 pages with 13 pages of notes. Portrait of author on cover. Paper 12 annas.

Ten short stories from Tagore, well printed, for school use. The style is simple and natural, and the subject matter interesting to students because nearer the scenes and interests of their lives than most of the stories ordinarily offered them.

DEWAR: BEASTS OF AN INDIAN VILLAGE. Oxford University Press. Cloth Rs. 3, paper Rs. 2. 132 pages, 8 illustrations in sepia and frontispiece in color.

An excellent companion to the author's *Birds of an Indian Village*, in the same clear and simple style, better illustrated and bound, and written with the same desire to popularize nature study in India. Surely such efforts ought not to be ignored.

Forty-three animals with backbones are described and a closing chapter on superstitions connected with animals is added. We commend the book to nature study teachers, and all lovers of the out-of-doors.

RAWLINSON: MORLEY'S SELECT ESSAYS. MacMillan, 3s. 6d., 169 pages with 19 pages of notes and a 12 page appreciation.

These Essays, complete in themselves, are offered for class reading in schools and colleges, because written by "one of the great masters of style in the Victorian era" and full of "ripe wisdom and noble reflections on literature and life". Four are literary and two biographical.

We wish that we had space to give samples of the lofty tone and full meaning of many passages in this little book, but one must suffice—one much needed in this day of narrowing interests and restricted views.

The shortest course of universal history will let him see how he owes to the Greek civilisation, on the shores of the Mediterranean two thousand years back, a debt extending from the architectural forms of this very Town Hall to some of the most systematic operations of his own mind; will let him see the forum of Rome, its roads and its gates:—

What conflux issuing forth or entering in,
Praetors, Proconsuls to their provinces
Hasting or on return, in robes of state—

all busily welding an empire together in a marvellous framework of citizenship, manners, and laws, that laid assured foundations for a still higher civilisation that was to come after. He will learn how when the Roman Empire declined then at Damascus and Bagdad and Seville the Mohamedan conquerors took up the torch of science and learning, and handed it on to western Europe when the new generations were ready. He will learn how in the meantime, during ages which we both wrongly and ungratefully call dark, from Rome again that other great organisation, the mediaeval Church, had arisen, which amid many imperfections and some crimes did a work that no glory of physical science can equal, and no instrument of physical science can compass, in purifying men's appetites, in setting discipline and direction on their lives, and in offering to humanity new types of moral obligation and fairer ideals of saintly perfection, whose light still shines like a star to guide our own poor voyages. It is only by this contemplation of the life of our race as a whole that men see the beginnings and the ends of things, learn not to be near-sighted in history, but to look before and after; see their own part and lot in the rising up and going down of empires and faiths since first recorded time began; and what I am contending for is that even if you can take your young men and women no further than the mere vestibule of this ancient and ever venerable Temple of many marvels, you will have opened to them the way to a kind of knowledge that not only enlightens the understanding, but enriches the character—which is a higher thing than mere intellect—and makes it constantly alive with the spirit of beneficence.

THORNDIKE: THE TEACHER'S WORD BOOK, 1921. Teachers' College. Pages 134.

Quoting from the author, this "book is an alphabetical list of the 10,000 words which are found to occur most widely in a count of about 625,000 words from literature for children; about 300,000 words from the Bible and English classics; about 300,000 words from elementary school text-books; about 50,000 words from books about cooking, sewing, farming, the trades and the like; about 90,000 words from the daily newspapers; and about 500,000 words from correspondence. Forty-one different sources were used."

In the reading of any year words used might be arranged under three heads: permanently important, temporarily necessary, out of place in this particular year. But the teacher cannot tell offhand, in the case of many words, in exactly what category a given word should be placed. Books like this by placing words in a scale of at least comparative importance assists him in such decision.

While, naturally, words of importance to American children may mean nothing to those of India and the reverse, from the

point of view of a knowledge of English, these lists, particularly that of 2,500 most common words, (pages 127-134) ought to be of considerable service to English teachers in Indian schools and to those interested in the construction of classroom tests in English.

O'SHEA AND KELLOGG: *Everyday Health Series*: Book one—*Building Health Habits*; Book Two—*Keeping the Body in Health*. Pages 280, 311. MacMillan.

MARSDEN AND JOHNSTONE: *Happy Days in Healthy Ways*. Pages 148, MacMillan, 2s. 6d.

Books of this type are fortunately increasing, but we doubt if any are the product of so happy a combination of authorship as the *Everyday Health Series*: one of the leading professors of education in the United States and one of the foremost health specialists. Significant features are simplicity and concreteness in presenting scientific matter, the presentation of "at least one interesting and practical original exercise" in connection with each principle of health, a list of questions at the end of each chapter, and excellent glossaries and dietetic tables. But best of all are the illustrations—fresh, everyday, concrete, an effective course in themselves. In the second book, for instance, they number about one hundred and fifty. A chapter on *Health Crusaders* ought to be of very large interest and value to heads of schools in India.

The health reader by Marsden and Johnstone, while not as well illustrated either psychologically or artistically, has merit through the story form in which its material is presented. An interesting feature in the introduction of the stories of great characters in the history of preventive medicine, Simpson, Lister and Ross. The book in its present form is an English version of Marsden's *The Land of Health and the Land of Wealth* prepared for India—an interesting reversal of the usual practice.

Books for later review:—

MORELAND:—From Akbar to Aurangzeb.

MOORE:—Minimum Course of Study.

ALEXANDER-DEWEY:—Arithmetic.

SPEARMAN:—The Nature of Intelligence.

SNEDDEN:—Educational Sociology.

BROWN:—The Coins of India.

METHODIST YEAR BOOK, 1924.

WASHBURN:—Individual Speller.

FORMAN AND OTHERS:—Intelligence Tests and School Reorganization.

LOBINGIER:—World Friendship through the Church School.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION:—Intelligence Tests and their use.

ATHEARN:—The Indiana Survey of Religious Education, Vol. I. INDIA CENSUS, 1921.

SQUIRES:—A Parish Program of Religious Education.

MILLER:—Dramatization in the Church School.

II

SELF-MEASUREMENT.

Self-measurement may not produce scientifically accurate data, but the process is good for the honest seeker after truth. The following criteria developed very recently at a conference of teacher trainers is significant of the efforts now being put forth by this group of workers in the field of vocational education in agriculture.

CRITERIA OF SELF-MEASUREMENT

1. There should be provided an actively responsible participation in teacher's work of a type determined by the organization of vocational education in agriculture within the state which the training instruction serves.
2. Such participation should include:
 - (a) Determination of the objective conditions of the teacher's job (for example, through observation).
 - (b) Getting the viewpoint of the learner (for example, by becoming a pupil).
 - (c) Getting the set and pattern of the teaching job (for example, through trial teaching of a lesson).
 - (d) Perfecting technique in teaching (for example, by practice teaching).
 - (e) Getting standards for critical evaluation of his own work (for example, by observation), in problems representative of the several forms of teaching appropriate to the vocational objectives of the agricultural courses, e.g., farm studies, shop work, home projects, classroom problems, etc.
3. Thus participation should be an integral part of professional training from beginning to end.

4. (a) No candidate should be admitted to training who has not given evidence of at least normal mechanic, scholastic and social capacity.
- (b) No person should be graduated as qualified for teaching vocations in agriculture who has not clearly demonstrated normal mechanical and scholastic ability in agriculture, normal ability to work with men and women, and superior ability with adolescent boys.

It is quite generally agreed now that any teacher training department which can score high on the propositions enumerated above stands near the top in efficiency among the departments the country over.

Apparently as a result of the program in teacher training it is noteworthy that many college faculties are paying much attention to methods of instruction. Some institutions have employed specialists to instruct members of the agricultural faculty; in some the teacher training departments are being called upon for such service, while in others conference groups within the college of agriculture itself have been organized for improvement of instruction. Since there is little evidence of this having been done before the teacher training departments were organized and the necessity for training teachers of agriculture was made prominent, and since it is now being done very generally, it may be safely assumed that the organization of teacher training in the institutions is mainly responsible for this innovation.

In conclusion it may be said that the future of this element of the vocational program is very bright. Problems involved are receiving the attention of the most able men in the country, and adjustments, refinements and improvements are being made in the methods of training throughout the country. As a result it may confidently be expected that within a few years agricultural teachers throughout the country will be among the best trained teachers in the secondary school system.—*Vocational Education Magazine, Vol. II, 1st Sept., 1923.*

FUNDAMENTAL PRINCIPLES OF HEALTH PROGRAMS.

In the main a full-grown program for conservation of child health in the school is directed towards three fundamental principles,

I. Healthfulness of the child's environment. This includes methods for reducing death and sickness among children.

1. Reduction of filth-borne diseases: Typhoid fever, dysentery, hookworm and other intestinal parasites.
 - (a) Sanitation: sanitary toilets at home and school.
 - (b) Safe drinking water.
 - (c) Safe milk supply.
 - (d) Examination for and cure of hookworm and other intestinal parasites.
 - (e) Control of flies.
2. Reduction of spray and non-spray-borne diseases, bad colds, influenza, whooping cough, measles, pneumonia, tuberculosis, scarlet fever, diphtheria, mumps and meningitis.
 - (a) Distribution of posters.
 - (b) Teaching two health rules, viz: Rule 1. Don't put in your mouth fingers, pencils or anything else that does not belong there, nor use a common drinking cup. Rule 2. Whenever you cough or sneeze, bow your head or put a handkerchief over your mouth and nose.
 - (c) Individual drinking cup.
 - (d) Individual towels.
3. Reduction of skin diseases: Itch, lice, ringworm, small-pox, chicken-pox.
 - (a) Vaccination.
 - (b) Control of vermin (itch, lice, etc.).
4. Reduction of insect-borne diseases: Malaria, yellow fever.
 - (a) Anti-malaria campaigns.
 - Isolation of patient.
 - Screening of homes.
 - Draining and oiling of stagnant pools.
 - Quinine as preventative.
 - (b) Rat campaigns.

II. Building up the child's resistance to disease and stimulating his growth.

1. This requires as a first condition removal of any handicap or obstacle to that growth.
 - (a) Detection and correction of physical defects before any other work can be considered.

2. Annual medical examination or physical inspection of each child.
3. Dental clinics; nose and throat clinics; orthopedic clinics.
 - (b) Developing muscular strength through physical education (Contra-indications to this; Hookworm heart and lung lesions, goitre and hernia.)
 - (c) Encouraging growth by hot lunches and teaching proper food values.
 - (d) Providing pure air through proper ventilation.

III. Health Education.

- (a) Education in health habits by establishing Health Leagues among children.
- (b) Supervision of hygiene instruction in the grades.
- (c) First aid to the injured classes in the grades. One half hour per month required by law.
- (d) Home nursing classes in High Schools.

—*Vocational Education Magazine*, September, 1923.

IT IS A MISTAKE.

1. It is a mistake to ask questions of pupils in rotation.
2. No pupil should ever know who is likely to be asked a question until it has been stated.
3. It is a mistake to repeat a question for the sake of those who do not hear it the first time.
4. It is a mistake to look fixedly at the pupil who is reading or answering.
5. It is a mistake to be the slave of any text-books.
6. It is a mistake to assign lessons without previously explaining them.
7. It is a mistake to assign a lesson without testing the class to see whether they prepared it or not.
8. It is a mistake to assign the same homework regularly to all the pupils in a class.
9. It is a mistake to continue a lesson too long.
10. It is a mistake to think that one teaching of a subject will be sufficient.
11. It is a mistake to be satisfied with repetition at the time of teaching.
12. It is a mistake to substitute repetition of words for repetition of a process.

13. It is a mistake to suppose that detecting errors is equivalent to correcting them.
 14. It is a mistake to be satisfied with one correction of an error.
 15. It is a mistake to try to teach too much in a single lesson.
 16. It is a mistake to be indefinite in teaching.
 17. It is a mistake to devote attention chiefly to the bright pupils in a class.
 18. It is a mistake to give information to children which they cannot apply at once.
 19. It is a mistake to accept partial answers.
 20. It is a mistake to repeat every answer.
 21. It is a mistake to have a stereotyped plan of presenting a subject.
 22. It is a mistake to talk too much while teaching.
 23. It is a mistake to use long words in teaching.
 24. It is a mistake to make the learning of names a direct aim in teaching.
 25. It is a mistake to try to make difficulties too simple.
 26. It is a mistake to neglect any opportunity for making the pupils do as much as possible in learning.
 27. It is a mistake to tell pupils anything they should know or can be left to find out by judicious teaching.
- Vocational Education Magazine*, September, 1923.

THE VALIDITY OF TESTS.

Out of the discussion concerning the validity of the intelligence tests, has come much checking up as to the validity of any examination results and, particularly, of teachers' "general impression" judgment as to pupils' achievement or ability. All this has been done more, probably, than any other one thing, to emphasize the importance of a scientific attitude in teaching. In sum, the writer sees no reason why intelligence tests should not be of as much service in the administration of a vocational school as of any other. They seem to offer, not a panacea but, even in their admittedly experimental stage, a real contribution to the altogether too unscientific "rule of thumb" methods otherwise in use in dealing with school promotions, demotions, and similar adjustments.—*J. E. Carpenter of Kamahamaha Schools Honolulu, in Vocational Education Magazine*, September, 1923.

A GENERAL SURVEY IN THE FORM OF AN ANALYSIS OF THE BUSINESS OF THE DIRECTOR OF CONTINUATION SCHOOLS.

It is the business of the Director of continuation schools in every city :

1. To know the facts pertaining to the children, the occupations and all organized civic and social agencies in the community.

- (a) Have you the previous school records of the pupils?
- (b) Do you know the present physical and mental conditions of the pupils?
- (c) Do you know the place of employment and duties of each pupil?
- (d) Have you the facts pertaining to the requirements for success in each of the occupations?
- (e) Do you know the home conditions of each pupil?
- (f) What is the attitude of employers, employees and parents toward your work?
- (g) What other organized agencies are there in your community that can assist you in attaining the objectives of vocational education?
- (h) What are the occupations of the children and adults of your city?

2. To establish and set up a curriculum.

- (a) Are you using the facts pertaining to the needs of the children and the community as the basis for your curriculum?
- (b) Does your curriculum provide corrective measures for individual pupils?
- (c) Does the curriculum provide instruction that will enable the pupil to intelligently select an occupation?
- (d) Does the curriculum provide instruction in the fundamental laws and practices essential to the good health of each boy and girl?
- (e) Does the curriculum provide an opportunity for each boy and girl to make preparation for, or improvement in, some specific occupation?
- (f) Does the curriculum provide specific instruction pertaining to conduct and relationship in the home, place of employment, and community?
- (g) Does the curriculum provide for some basic instruction in scientific phenomena common to all people?
- (h) Does the curriculum provide for strengthening in the use of written and spoken English and some appreciation of literature?
- (i) Does the curriculum provide for instruction in the simple, economic facts and the outstanding features of the development and operation of our government?
- (j) Are the objectives of your continuation school so thoroughly ingrained that you can unhesitatingly use them to determine procedure?

3. To organize and operate an efficient school plant.

- (a) Are you securing the very best teachers your salary schedule will permit?
- (b) Have you set up a daily program for teachers and pupils that is producing results?

- (c) Have you assigned definite responsibilities to teachers and are you holding them accountable for results?
- (d) Do your records of the pupils give the useable facts concerning employment, health progress in school and employment, the home, etc.
- (e) Do you know the conditions of your building, rooms, equipment, supplies, and are you making every effort to maintain them at a high standard?
- (f) Do you know the facts concerning the cost of operating in terms of pupils?
- (g) Have you a practical, up-to-date inventory of all equipment and supplies?
- (h) Does your organization operate without loss of time, effort and materials?
- (i) Have you all the essential facts necessary to make an intelligent, readable report of accomplishment to your community and to the state?

4. To secure effective teaching.

- (a) Do you know what good teaching is?
- (b) Do your teachers know the objectives of the school and their specific part in the accomplishing of the objectives?
- (c) Do your teachers make the necessary preparation for each day's work?
- (d) Are the equipment, supplies and classrooms always in readiness for the pupils?
- (e) Is all classroom procedure marked by order and despatch?
- (f) Are the necessary demonstrations given by your teachers and are they effective?
- (g) Do all the pupils take an active part in the classwork proving their comprehension of it by their participation?
- (h) Are the pupils developing resourcefulness and ability to get things done?
- (i) Are your teachers employing sound pedagogical methods in all their classwork?
- (j) What are you doing to check the effectiveness of the teaching in the classroom? outside the classroom?
- (k) What training are you giving your teachers to improve their classroom organization and teaching?

5. To co-ordinate the agencies of the community.

- (a) Are you using the facts pertaining to the agencies of your community in the development of a co-ordinated program?
- (b) Are you getting assistance from Rotary Clubs, Kiwanis Clubs, Chambers of Commerce, Commercial Clubs and other civic and social organizations?
- (c) Are you making the best use of the services of the public library?
- (d) Are you getting the active support of the employers and labour groups?
- (e) Are the parents of the community co-operating with you?

- (f) Are the public health agencies assisting you in your program?
- (g) Are you utilizing the public press to the best advantage?
- (h) Are you giving the numerous agencies some specific responsibility in connection with the development of your program?
- 6. To secure the co-operation of associates and directive heads of the education system.
 - (a) Do all your teachers know their specific responsibilities?
 - (b) Do you assign responsibilities according to the abilities of the teachers and give each teacher full personal credit for accomplishing results?
 - (c) Is your professional attitude towards your teachers such as to secure their full co-operation?
 - (d) Is your understanding of the work in all its phases such as to command the respect of your teachers and the directive heads?
- 7. To plan for practical extensions of the local program.
 - (a) What plans have you for extending the work of your organization to more fully meet the needs of the community?
 - (b) What are you doing to secure better housing and added equipment?
 - (c) Are your developmental plans based upon facts concerning the needs; are they practical and possible of accomplishment?
 - (d) What have you done to develop public sentiment in favour of your extension?
 - (e) Have you secured the active support of the recognized agencies of the community?
- 8. To extend his personal professional preparation in order to render greater service.
 - (a) Do you know what some of the qualifications of leadership are?
 - (b) Is your grasp of the problem of vocational education superior to that of the rank and file of teachers?
 - (c) Do your teachers accept you as a leader in the field of their work?
 - (d) Are you taking summer courses, extension courses, reading professional references and journals, attending educational meetings, visiting progressive communities?
 - (e) Do you know the state and national developments in your field?
 - (f) Are you setting an example to your teachers in the matter of professional study and progress?—*Vocational Education Magazine*, Vol. II: 2nd October, 1924.

DEFINING A PROFESSION.

"A Profession may be defined most simply as a trade which is organized, incompletely, no doubt, but genuinely, for the performance of function. It is not simply a collection of individuals who get a living for themselves by the same kind of work. . . . It is a body of men who carry on their work in accordance with rules designed to enforce certain standards both

for the better protection of its members and for the better service of the public.

"The standard which it maintains may be high or low; all professions have some rules which protect the interests of the community and others which are an imposition on it. Its essence is that it assumes certain responsibilities for the competence of its members or the quality of its wares, and that it deliberately prohibits certain kinds of conduct on the ground that, though they may be profitable to the individual, they are calculated to bring into disrepute the organization to which he belongs. . . .

"The difference between industry as it exists to-day and a profession is, then, simple and unmistakable. The former is organized for the protection of RIGHTS, mainly rights to pecuniary gain. The latter is organized, imperfectly indeed, but none the less genuinely, for the performance of DUTIES. The essence of the one is that its only criterion is the financial return which it offers to its shareholders. The essence of the other, is that, though men enter it for the sake of livelihood, the measure of their success is the service which they perform, not the gains they amass. They may, as in the case of a successful doctor, grow high; but the meaning of their profession, both for themselves and for the public, is not that they make money but that they make health, or safety, or knowledge, or good government or good law. They depend on it for their income, but they do not consider that any conduct which increases their income is on that account right. And while a boot-manufacturer who retires with half a million is counted to have achieved success, whether the boots which he made were of leather or brown paper, a civil servant who did the same would, very properly, be prosecuted.

"So, if men are doctors, they recognize that there are certain kinds of conduct which cannot be practised, however large the fee offered for them, because they are unprofessional; if scholars and teachers, that it is wrong to make money by deliberately deceiving the public, as is done by makers of patent medicines, however much the public may clamour to be deceived; if judges or public servants, that they must not increase their incomes by selling justice for money; if soldiers, that the service comes first, and their private inclinations, even the reasonable preference of life to death, second. Every country has its traitors, every army its deserters, and every profession its blacklegs. . . . The meaning of a profession is that it makes the traitors, the

