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[No. 7

Thought for the Month

CULTIVATION OF RIGHT VALUES AND IDEALS: TEACHERS' RESPONSIBILITY

Above all, I would plead to you to remember that great is the teachers' responsibility in the crusade for sanity and good-will. They can only give to their children what is in them, and insincerity in their relationship is truly fatal. Unless they can scrupulously clean their own hearts and minds of all ugly communal and sectarian prejudices and become truly human, eager to welcome and take to heart all that is good and decent and all that is needy and in distress, they are not fit to enter the temple of learning and they should not be allowed to defile the schools with their presence. Social and moral values are always caught through contagion of a living personality and, if we fail to cultivate right values and ideals in ourselves, we shall be unworthy of our task and shall betray the trust placed in our keeping.

... ..
It is for us, teachers and educational officers, to dedicate ourselves afresh to the service of moral values and reaffirm the primacy of the ideals which make for decent and civilized living.

[*Teacher's Conference*]
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(Prof.)—**K. G. Saiyuddin**

IMPROVEMENT OF EXAMINATIONS

By :—Prof. Walker H. Hill* *New Delhi*

A concerted effort is now getting under way in India to bring about much-needed improvements in secondary school examinations. Efforts in this direction have been made for several years, but they are now moving ahead on a number of fronts and are at the same time being concentrated where their impact is likely to be most effective. For the first time, therefore, we can see it as a concerted effort.

This work, stimulated initially by the visit of Dr. Benjamin Bloom to India, has been encouraged and directed by the Evaluation Unit of the Directorate of Extension Programmes for Secondary Education (DEPSE). Modern concepts of evaluation have been presented in conferences and workshops to hundreds of secondary school teachers, to members of training college faculties, and to others involved in improvement of education. Explanatory materials and specimen test questions have been written, published, and distributed to schools. Materials for use in internal evaluation, other than tests, have also been made available.

The key to improvement of evaluation, and of its impact on teaching, seems to be improvement of external examinations. DEPSE is now devoting a major share of its effort to training programmes for paper setters, conducted in co-operation with the Secondary Education Boards in several States, including Maharashtra. The number of States desiring this assistance is growing rapidly. States are also organizing their own Evaluation Units, which can provide leadership and assistance in the improvement of testing in each State. The training of personnel for these units is another important DEPSE activity.

THE NEEDED IMPROVEMENTS

Internal testing

Many kinds of improvements can and should be made in examinations, both internal and external. The first thing to be said about internal tests and examinations is that there are not nearly enough of them. Teachers should be encouraged and helped to make and



* Specialist in Testing, Columbia University, Teachers College Team in

use tests of their own. These can be less formal and more diagnostic than external examinations. Many of the principles of good testing, however, apply to both. It is more important that they be applied rigorously to the external examinations, and the major efforts for improvement are focused on them.

The following discussion, therefore, refers specifically to external examinations, though it may be borne in mind that much of what is said is applicable to internal testing also.

Objective-based tests

Above all, examinations should be based on the objectives of instruction. At present they are extremely one-sided. Almost all questions measure the achievement of one objective only—the acquisition of information. The student who can reproduce a sufficient mass of memorized and ill-digested information gets good marks. Yet many teachers are, and all teachers should be, interested in developing other kinds of competence in their students, such as understanding of what they learn, ability to apply their knowledge in life situations, ability to think and to solve problems, etc. These abilities are not tested to any significant extent by the examinations. When examinations ignore important objectives of education, they discourage pursuit of those objectives in the schools. The most necessary improvement, therefore, is to include questions which require students to demonstrate their achievement of a wider range of objectives.

Objective-type questions

To say that examination questions should be based on objectives is not to say they must necessarily be "objective" in form. However, my second suggestion for improving examinations is that questions of the objective, or fixed-response, type should be used much more extensively than they have been heretofore.

In this type of question, alternative answers are written into the question, and the student selects the correct answer from the alternatives. He does not have to write answers, but simply marks the answer of his choice. These questions are called *objective* because the correct answers are pre-determined, and an examiner does not have to exercise any judgment in deciding whether a student has answered a question correctly. Thus a student's score on an objective test will not vary if his paper is marked by different examiners.

There are several reasons for advocating greater use of fixed-response questions, of which the first is the quality that can be attained in this form. These questions are extremely versatile; they can be adapted to the testing of a wide range of objectives. For testing

knowledge and most intellectual skills and abilities, they can do the job better than it can be done with essay questions. This fact is not familiar in India, for no objective questions of high quality seem ever to have appeared in Indian examinations.

The objectivity of scoring is another important advantage of this type of question. The marking of essay questions is a highly subjective matter. * Too often we cannot be confident that the different marks of two students on an essay test reflect differences in their performance on the test, rather than differences in the judgments of the two examiners who read their scripts. Such subjective judgments are intolerable when they are the basis for decisions to certify students' success or failure in the attainment of important educational goals. It is true, as we shall point out later, that the objectivity of marking essay tests can be increased; but the increase has limits, while fixed-response tests can be marked with total objectivity. Also the marking of the latter can be done very quickly.

Another advantage of objective testing is the greatly increased coverage of content that it provides. One of the large problems of the present examinations is that they can include only a small sample of the topics which should be included. In the same amount of time required to answer six or eight long essay questions or thirty short-answer questions, students could answer 150 fixed-response questions. The questions, therefore, could cover a variety of objectives and a large number of topics.

Many teachers regard the answering of objective questions as an artificial exercise. Students need only recognize the correctness of given answers, instead of formulating and writing their own answers. This is viewed as a poor substitute for real intellectual endeavour.

There are three points to be made in answer to this objection. First, good fixed-response questions may elicit at least as much, and often more, real thinking, than do essay questions. They can emphasize understanding and thinking, whereas essay questions require such a great amount of time-consuming writing.

Second, the ability to recognize good answers and the ability to recall and express good answers are found to be highly correlated. Thus, even if answering objective questions is a substitute for the kind of performance we really want to develop and test, it may be a good *index* of that performance. In view of the other advantages of objective questions, this in itself may justify their use. °

Third, it may be argued that recognizing and selecting good solutions is *not* a substitute for something more real, but is actually quite true to life. In their lives after school, the life for which we wish to prepare our students, will they always be called upon to

express their solutions of problems? Or will they, perhaps more often, face the need to make choices among proposed alternatives?

Improved essay questions

Essay questions are useful for testing students' skill in written expression and their ability to think through a problem and organize their thought in a clear and logical manner. To achieve this purpose, however, the questions must be carefully stated. Too often the questions are vague or ambiguous; they give no clear direction to the students. The students then have no way of knowing what they are being asked to do, what kind of answer is desired.

Often students are told to "discuss" a topic, or to "write short notes on" a number of topics. What aspects of the topic should be discussed, from what point of view? There are many possibilities, and several different kinds of answers may be justified. Some of these may be quite different from what the paper setter had in mind. Students should not have to guess what the paper setter meant to ask; they should be clearly told.

What they should be directed to do in answering a question depends on the objective to be tested. When they are told to "describe" something, they will reveal their knowledge. If application or thinking is desired, it is better to ask them to "compare" or "explain" or "illustrate."

Sometimes a question is so broad, too general, that one would have to write all day to answer it fully. The only thing students can do is write all they know about the topic, with no chance to select pertinent points or to organize them coherently, for no frame of reference for coherence has been provided. Questions should be more limited in their scope, and the limited aspects should be indicated.

It is helpful for the paper-setter to write out what he considers a good answer, and then ask himself (and perhaps ask others) whether the way he has stated the question is well designed to elicit that kind of answer from competent students.

It should be apparent that more precision in the statement of questions not only makes it possible for students to know what is required of them, but also makes it possible for examiners to judge their answers more objectively. Clarification for students results in clarification for examiners also. Vagueness is puzzling to both.

Optional questions

It is traditional in almost all Indian examinations that students shall have some opportunity to choose the questions which they will answer. Some examinations are so full of options, including

options within options, that students must make their way through a maze of decisions about which questions they should answer. I have seen a paper which contained three times as many questions as the students were expected to answer.

Nearly everyone would agree that this is extreme. When paper setters discuss the matter, they generally say the number of optional questions should be reduced. Frequently they say alternative questions should not be given, but only alternative parts within the questions.

Reduction of options is certainly desirable, but it is only a half-way measure. Examinations are defective when they include any options at all.

The reason for having external examinations is that a common measure is needed to assess the competence of students coming from a variety of schools. With a common measure, the achievement of all candidates can be judged on a scale which indicates how well they have learned the material taught in the secondary schools. When examinations give options, *they do not provide a common measure*. The performance of different students cannot be legitimately compared, for they have not performed the same task.

The comparison would be justified if we could be sure that the alternative questions answered by different students are fully equivalent tasks, or if we had a conversion scale by which we could compare the value of one question as a measure with that of another question. But these conditions cannot be fulfilled. We may note that there is little temptation to offer options among fixed-response questions. It is in essay tests that the practice prevails. And the nature of these questions makes it impossible for us to know their equivalence.

It is possible to justify options in some of the tests used by teachers, where measurement of the comparative competences of students is not always the prime purpose. But this is the prime purpose of external examinations, and it is defeated by the inclusion of options.

It is comforting to paper-setters to write in optional questions. It enables them to increase the number of questions in an examination, and thus to cover a greater portion of the syllabus. The extended coverage is an illusion, however. The paper-setter must realize that, though he is covering more topics, he is not making the students cover more. He is, in fact, encouraging them to cover less. What happens is that students, knowing they may make choices among the questions, study some parts of the subject and ignore others.

Most other reasons for the inclusion of options are not educational, but political or social. Options must be given because they are traditional, because students (and their parents) expect them. Options give students a sense of confidence (though it is a false confidence). Indian educators must decide how much weight should be given to these arguments.

Planned examinations

No examination includes all the questions that could be asked about a subject. It must be a sampling of the students' learning. A good examination provides an adequate and representative sample. This requires careful planning of the examination before the questions are written or selected.

The planning must consider the representativeness of the sampling in two dimensions, the objectives to be tested and the topics to be covered. This may be done conveniently by preparing a chart on which the subject-matter divisions are listed at the side and the objectives are listed across the top. Then, when the total number of questions has been determined, the paper setter may decide how many questions are to be included for each objective and for each topic. This gives the specifications for the paper, which serve as a rational basis for framing questions.

A Needed Reform

If all the changes mentioned here should be adopted, the examinations would be greatly improved. But even this would not be enough to make the examination system serve properly its purpose of certifying students' completion of secondary education. In addition to improved examinations, a basic reform of the system is needed.

A new meaning of secondary education has come to the fore in India. The high school is no longer just a step on the way to the university. It must be developed as "a stage complete in itself with its own ends and special purposes."¹ This is true because India has determined that large numbers of children shall have secondary education and because the nation needs large numbers of people educated to this level. Therefore, it must be expected, and it is already true, that most people who complete this stage of their education will not go to universities. This is the end of formal education for the majority.

This concept of the major purpose of the high school was emphasized by the Secondary Education Commission in 1953. It has

1. *Report of the Secondary Education Commission*, New Delhi: Ministry of Education, Government of India, 1953, p. 24.

been accepted by India's educational leaders. Multi-purpose schools are being developed to give it practical effect. But it has not been reflected in the examinations. It is true that many States now call them secondary school certificate examinations instead of matriculation examinations, but this is a change in name only. It has not significantly changed their nature, and in reality they are still matriculation examinations. Students qualify for university admission, or they fail. If they do not achieve this qualification, they achieve nothing.

This is what must be changed. Completion of secondary education must be given recognition as an achievement in its own right.^o The Board's certificates should represent that recognition. The certificate should be sought, as a valued achievement, by all who finish high school, whether they are interested in higher education or not. And most of those who seek it should attain it.

At present more than half of the candidates are failing. This is widely recognized as representing too many failures. But they are failing to qualify for universities, not necessarily failing to meet a reasonable standard of high school completion. We do not have such a standard. We must develop it.

To do this, the examining Boards must cease using a single measure and a single standard for certifying both high school completion and university qualification. They may give up entirely the function of qualifying students for universities, or they may give different examinations for the two purposes.

If the purpose of the school leaving examinations is clarified in this way, it will give direction to the improvement of examinations. Then it will be possible to design examinations that are really suited to their purpose. And then it will be possible to determine proper standards for certifying completion of secondary education.

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EDUCATION OF TALENTED PUPILS IN SECONDARY SCHOOLS

By—K. L. Khandekar, R. G. T. College, *Porbandar*.

The term 'education' is getting more and more significant as civilization is advancing. In the by-gone days a father used to teach his ward the trick of the family trade and the boy was supposed to be educated. Now with the growth of complex society the family trades have been almost lost. A child in any family is now free to adopt a suitable vocation or profession for which he or she prosecutes his or her studies. It is here that one can judge the calibre of a pupil to learn new things. At the outset a boy is considered talented if he picks up new things easily, and a dullard one if he fails to grasp common things.

Can a teacher avoid any one group of pupils, say talented or dullard, and work without it? The answer is: "No". It was once the dream of Karl Marx to create a classless Society free from lower and higher economic status. In a socialistic pattern State it may be possible that economic inequalities can be brought to a minimum. But, can such a State stop some pupils growing more intelligent and some growing dullards? The answer again is obviously: "No". Further a democratic country like India has accepted the principle of equality of educational opportunity. We have, therefore, a single track system in our secondary education. No student is barred entry in a secondary school on the ground that he is less intelligent and that he has less ability than the other. That makes the composite structure of any class where there is a queer mixture of talented few, mediocres and some dullards. This means that the principle of equal educational opportunity cannot satisfy the demands of the talented few in a secondary school.

Types and Tests

Let us see how to distinguish between these various types of pupils. Recent research has shown us that each developing child has several different types of intelligence or learning aptitudes. The factorial approach has been applied in several instances in devising measuring instruments, to determine the level of different learning aptitudes present in individuals. Thueston has found out and built tests to measure a number of primary learning aptitudes. There are tests that measure and provide separate scores for the following

five basic learning aptitudes among the kindergarten children in the second grade. The learning aptitudes are : (a) Verbal meaning, (b) Quantitative aspect, (c) Space relationship, (d) Perceptual speed, and (e) Motor ability. He has also provided a general ability quotient comparable to the I. Q.. In measuring the basic learning aptitudes of secondary school pupils a separate score in six learning aptitudes is provided. The aptitudes are : (a) Verbal meaning, (b) Word-fluency, (c) Reasoning, (d) Memory, (e) Number, and (f) Space.

Super states in reference to the subtests that, although in combination they measure what is commonly called general intelligence, factorial studies have shown that they are relatively independent and unitary in nature. Is it possible to measure these aptitudes and locate them among our secondary school pupils through standardised tests? In the first place there is a dearth of such tests and even if such tests are applied to find out special aptitudes the next difficulty is to provide various courses to satisfy the marked talents of these selected pupils. At times teacher's judgment of superior learning aptitude is sometimes faulty, as over-aged pupils doing excellent work but chronologically younger are sometimes erroneously judged 'bright' by them.

Hence we look from a practical point of view at the problem that a common teacher in a secondary school faces. He has before him a mixed class of superiors and inferiors who demand work and knowledge according to their individual capacity. In some secondary schools there is a tendency to form different divisions of one class on the basis of superior and inferior pupils. But in fact all the pupils in future, when they become citizens, have to live with mixed people of all types like superior, normal, inferior, good, bad and indifferent ones. So segregating pupils in water-tight compartments will not be advisable.

Some Schools

There are some aristocratic schools in the country like the Convent schools, the Bishop schools or some residential Public schools, where admissions are given to those pupils who can afford to pay high fees and study through the medium of English. Such schools are venues for ambitious parents who want their wards to be leaders in society in different fields and professions. Recently 'Sainik' schools in the country cater to the need of some selected few who have a military bent of mind and can afford to undergo large expenditures on training. But then what about those numberless pupils who clog into our thousand secondary schools? They are rather compelled to join these ordinary secondary schools where their talent is crushed.

However, it is a good sign that a number of multi-purpose schools are coming up, giving different bias and thus satisfying the demands of some pupils showing certain aptitudes. These schools, though they are called multipurpose are, generally of three types, viz. technical, commercial and agricultural, with home science in some girls' schools.

The Secondary Education Commission (Mudliar) has suggested a number of subjects under seven groups, as diversified curriculum for higher Secondary Stage. The groups are (a) Humanities, (b) Science, (c) Technical, (d) Commercial, (e) Agriculture, (f) Fine Arts, and (g) Science. If courses under these respective groups are run effectively in a higher secondary school, special talents or aptitudes of many of our pupils can be satisfied. Unfortunately higher secondary schools are yet to take shape in many of our States, because of lack of finance and many other reasons.

Now, if we look at the present curriculum based on concentric method of our secondary schools it is a generally broad-based one, having subjects like General Science, Elementary Mathematics and Social Studies. Dr. Khair from Poona observes: "We have gained breadth in curriculum at the cost of depth," and this very loss of depth in the subject has almost killed the interest of many of our talented pupils in their studies. In the first place they get bored in studying the same topics covered under general subjects in spite of their wider treatment at the next year. Consequently the superior pupils who score a fairly good percentage at the S. S. C. Examination or at the terminal stage of secondary education are not able to maintain their academic achievements as soon as they enter the first year of college courses. The reason is the big gap between the college curriculum and the secondary school one. The gulf is on account of the depth in the curriculum that is lost as the same is made broad-based. The problem then is as to how the talented pupils can be made to benefit by the present curriculum.

Guidance Methods

R. H. Knapp in his book on "Practical Guidance Method" has mentioned two methods to guide children with superior learning aptitudes. The first method is the "Vertical enrichment" and the second one is the "Horizontal enrichment". The vertical enrichment or acceleration is a temporary solution to the problem of providing meaningful and challenging learning experiences for the child. Acceleration is practical in a graded system where a superior child is put in an advanced grade. But here the child has to cope with the disadvantage of finding himself in a new social setting and among

children somewhat older than himself. There also the danger that there may be serious gaps in his school experiences.

The Second method is in tune with the modern educational thought as it provides enriching experiences within the normal group or grade. The following are some of the ways of providing enriching experiences horizontally to talented pupils.

(1) To increase the number of applications of the principle learnt with reference to content subjects, where it is possible to approach a topic from different angles.

(2) To direct the thinking of the pupils towards generalisation through questioning and gradually doing the same independently.

(3) To guide such pupils for creative expression such as that of writing of poems and stories in the academic subjects or preparing some small articles in craft work.

(4) It would be a waste of time for the child with superior aptitude to continue with drill activity after satisfactory performance has been demonstrated. It would be far better for that child to participate in enrichment activities on the same general level.

The study of Mathematics or the working of puzzles and problems of a more difficult nature would also serve as suitable enrichment activities.

More Special Schools

At this juncture it may also be thought out whether special schools for pupils with special needs can be started in our country, over and above the Sainik Schools and others of the type mentioned earlier. With the help of the State special schools for a few talented pupils can be started in every region. In this connection a reference may be made to the decision taken by the Maharashtra State. It is regarding a secondary school for talented pupils in the State on the basis of their intelligence, somewhere near Kaynanagar is Satara District, and the State Education Department to bear the complete expenditure for every pupil there. Let us see how the proposed institution takes a shape in the near future and becomes an example to other States through its working.

In an institution like this there should be emphasis on the depth of knowledge in any subject that comes under its curriculum. So these pupils after finishing the secondary stage can easily pick up vocational or professional training with greater skill. This will lead to producing expert personnel in various branches, after these pupils finish up their training.

Such special secondary schools, it is probable, may have a limited number of seats and so they may not satisfy a big number of such talented pupils. In big cities such pupils join extra coaching classes to gear up their studies and are in a position to secure scholarships for further studies. They can even secure admission in reputed colleges and technical institutes. The problem is about talented pupils who happen to be studying in rural secondary schools.

Some Suggestions

In the first place a general survey of specially talented pupils in these schools should be made. If the number is found sufficiently big in two or three surrounding schools near by, arrangement for additional coaching in the subjects of the pupils' choice can be made. It is necessary to employ first-class graduates in respective subjects for the particular group of schools. An insight and depth into the subject can be gained by talented pupils through additional coaching by first-class graduate teachers. The State Education Departments should be kind enough to pay additional grants to rural schools (in groups as they may be), employing exceptionally qualified teachers. Grants also should be given on additional establishment in laboratories and libraries that will give enriching experiences to talented pupils in rural areas. I am sure this will help these pupils to receive higher education in a better way like the city pupils, as equal opportunity will be provided to them.

A further problem is likely to crop up from the above discussion. It is whether special testing procedure is to be adopted for such pupils. Personally I feel that it is not necessary. The same question-papers may be set in for all. Normally a question-paper has certain options which can be made a little more difficult in nature. Talented pupils can be encouraged to solve these optional questions and credit for the same can be given. These optional questions should demand superior work from these pupils.

Well, these are some of my suggestions rising out of my little experience in the educational field. However, no one would deny the fact that talented pupils possess a surplus mental energy like the additional steam of a railway engine and, if no safety valve in the form of extra enriching experience is provided to them, they would feel frustrated and their talents would be lost to the nation that needs them so urgently at this juncture.

SUGGESTIONS FOR MAINTAINING SCHOOL RECORDS

By:—Prof. Shamsuddin., M.A., M.Ed., *Raipur*

The field of Cumulative Record is a vast one. An immediate need is that of 'Appropriate Forms'. For the tentative use of certain record forms which are already in use in our schools, I am making a few suggestions, employing theoretical sound assumption and valuable directions from experts and experienced persons; however, to prove their validity they will have to undergo a test of trial.

It may be possible to enumerate such problems but before one can delve into them, it is essential that the machinery of cumulative record system may be put in motion on the lines suggested below.

Family History

Every individual bears an imprint of the environment in which he is brought up. The family which constitutes the earliest environment for every individual is one of the most potent forces in moulding personality. It is more important because the family is almost the exclusive environmental factor which influences the first few formative years of life. Pestalozzi, with a true insight, regards home as an indispensable factor and the mother as the source of all true education, because, during these earliest and impressionable years, the family is the child's social environment. During the first six years the child's proper place is home. Here it gets freedom, spontaneity and affection. It is here it learns to speak, acquires a certain vocabulary and a certain range of ideas. Here it forms its early habits. It is the foundation of child's virtues such as sympathy, affection, generosity, considerateness, justice, truth and industry. [Psycho-analytic literature is full of cases wherein it was found necessary to go back to childhood circumstances in order to understand the personality problems of the adult. It is, therefore, necessary to know the family background of a student before an attempt is made to understand him. To fulfil this need, Family History Record Form should be maintained.

The Family History Record Form should be filled in, bearing in mind the following instructions :

A general impression, based on the evaluation of various aspects of Family Status, should be entered with references to the following scale :

A	B	C	D	E
Upper	Upper Middle	Middle	Lower Middle	Lower,

As regards the order of birth of the child in the family, it should be shown as follows :

If the child is the eldest one of five children he should be marked 1/5. If a child is marked 6/7, this indicates that the child's position in the family is the sixth out of seven children.

Parental attitude towards children can vary right from pampering to positive neglect. Even in the same house, it is*observed that all children are not treated alike. Some are more indulged than others. Some are favoured by father, some by mother. If the child is over-protected or pampered, it should be mentioned in the form.

In case the child lives with anyone other than his real parents, details of the persons should be entered against 'guardian'. Exact nature and relationship should also be mentioned.

Scholastic Attainment Record Form

The Examination system renders the detection of backward cases very difficult. Those who are backward in general or in specific subjects remain so till it is too late to mend. Maintenance of scholastic attainment record form makes it easier to detect and to reach such pupils. It will also help to :

- (1) Know pupils of usual ability.
- (2) Divide the classes into smaller groups of similar level of achievement. This will make class instructions more effective.
- (3) Give an impetus to the students in the lower classes and to inspire in them healthy competition, and
- (4) Help at the time of giving promotions and determining the granting of freeships, scholarships and rewards.

Every month after the assessment is over, the record forms should be shown to the students so that they may know what progress they have made during the whole month. The records should be filled in by subject teachers. For each subject, three columns should be provided, one for each of the following :—

- i. Daily work.
- ii. Maps, Note-Book Work, Charts, etc.,
- iii. Tests : Daily, Weekly and Monthly (if held any).

At the end of every month general consolidated impression about each of the aspects should be given. It would be better if the teacher, instead of depending on his memory, maintains a personal register wherein he makes daily entries. The final assessment should

be the average of the above three. The assessment should be made on a five-point scale as mentioned below :

A	B	C	D	E
Good	High Average	Average	Low Average	Poor.

Practical Activities

In recent years emphasis in education has been rightly shifted a little towards vocational usefulness. Some practical activities have been incorporated in school curriculum with the idea of acquainting pupils with crafts and activities which they might put to use after the completion of school life.

Hence the activities should be so conducted and records maintained in such a manner that information collected should corroborate and supplement, where necessary, the finding obtained from aptitude testing. In order to fulfil this objective, it is essential that no restriction should be laid on the number of activities in which a pupil wants to take part. He should be allowed full scope to choose and all facilities should be provided to pursue them.

Observation report should be entered every week under two distinctive heads :

(i) Efficiency : (E) which refers to the quality and quantity of work produced by the pupil. Following code will be easy to adopt and also sufficient for the purpose : — Unsatisfactory 0 Mediocre + Satisfactory.

(ii) Interest : (I)

It is very necessary to assess the interest which a pupil takes in his work, apart from his efficiency. It goes a long way in effecting adjustment to our surroundings. The general mood and vivacity with which he does his work should be put under this head.

A pupil will always reveal himself more 'at work' than 'through his work'. General behaviour of the pupil while he is engaged in work should be observed, and significant remarks should be noted.

Health Records

Mind and body are so closely related to each other that to understand one, study of the other is very essential. Health records, therefore, occupy an important place in any machinery which takes upon itself the duties of 'Guidance'.

(i) Previous history and medical history of the family (if it is exceptional).

(ii) Report of medical examination which is held by school authorities from time to time.

Personal Data Sheet

This record form is very valuable. If it is properly and accurately maintained it will be very helpful in managing the student. It aims at giving a glimpse of pupil's personality. For convenience of study, this record may be split up into four areas :

1. Physique and Health. 2. Mental and Scholastic. 3. Character Traits. 4. Vocational and other interests.

Future Plans

'Guidance' is the watchword of modern life. Society has become so complex and individual life-span so changing that there is no place for experimentation. If one needs to avoid frustration in later life, he has to plan his future methodically. Vocation, being one of the main responsibilities of later life, needs careful planning right from school stage.

Almost all the information needed for counselling in this direction is scattered in various records discussed so far. It will be, however, easier for reference if all the relevant information is put in one place. Therefore, maintenance of this form is indispensable for counselling services.

Such form should be completed every year. It should be written by the expert and suggestions handed down to proper persons for execution, before new session starts.

Honour Board

The Honour Board is a valuable possession of a school. It is no exaggeration that the Honour Board will decorate school walls better than all sorts of other pictures. It reflects the glory of the school and at the same time gives a sense of fulfilment to pupils who bring honour to their institutions. Its importance does not end there. It serves as an incentive to scores of other ambitious pupils who enter that institution.

There is, however, a tendency to restrict the application of the Honour Board in the field of scholastic achievement only. This practice quite naturally lays undue weightage on only one aspect of education and hence inspires only a section of the school population.

Therefore, Honour Boards should be displayed in prominent places of the school like the main hall, verandahs or the entrance porch, where these can be within sight of every visitor. There is no harm if more copies are maintained and exhibited in different places.

Conclusion

I am conscious of the criticism which readers can level against the suggestions made here and also of doubts which can be raised with regard to their importance and utility. But I am confident that this new development is going to influence education. If not today, the day will soon come when every facility for including cumulative record system in schools will be available.

All those who are holding the reins of education should by then be convinced and be ready to take this step towards better and fuller education. It cannot be denied that this reform will need more funds to equip schools with material and personnel. It will be an imperative duty of the Government which holds welfare and happiness of people dear to their heart to generously aid schools in organising such schemes. Victor Hugo was not wrong when he said, "Those who open a School close a Prison".

Education In England and Russia

As soon as a Russian child enters school he becomes a member of a large group, that is the whole class, and he is encouraged and expected to take over the ideals, work-habits and ambitions of the collective, which is firmly led by the teacher. When an English child enters school, every effort is made to encourage and expand his individual personality as far as it can go without interfering with the welfare of all. Small natural groups form which gradually coalesce. To sum up, Russian education tries to train children through carefully graded steps for a miniature form of adult life, while British education aims to teach children to deal with their own problems at their own level by exercising initiative, thought and self-discipline, so that they will have the appropriate means of dealing with the problems that they may meet at any level.

(V. O. C. Journal, *Tuticorin*)

Waddington

[University of London].

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NEW SCHOOLS FOR NEW INDIA

By:—Prin. H. B. Kewalramani, M. Commercial High School,
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In a developing country it is necessary to have not only more but also better schools. After the attainment of Independence, our Government both at the State and the Union level has been spending more and more on primary and secondary education with the result that large numbers of new schools have sprung up all over the country. It is doubtful, however, if the quality of education imparted has improved. Unless this is done, the new generation, which should really be a better generation than the previous one, is likely to deteriorate.

Training for Leadership

The prime need of education today is the improvement of the quality of instruction imparted, particularly at the primary and secondary levels. The first step in this direction is to break away, as far as possible, from the old pre-Independence traditions of education. The country needs not only clerks but also leaders, officers, and technical personnel of every description. The education we impart in the ordinary secondary schools today produces, no doubt, a type of person who can handle lower, smaller jobs but not something that requires initiative, resourcefulness and independence. In a word, the main thing that the present-day system of secondary education in our country lacks is leadership training.

We cannot completely overthrow the system of education that has prevailed in the country for so many decades past but we can certainly adapt it in such a way as to make leadership training possible for at least some percentage of the school-going population.

If we reflect deeply over the problem, we shall agree that true leadership is the product of proper intellectual attainment and character development. If, therefore, we wish to provide for leadership training in our schools, we must find out ways and means of arranging for true intellectual development of our students and of basing their development on sound character-training.

Ways and Means

All the intellectual training that we impart in our schools is usually confined to certain items of information given to students

to mug them up and vomit them out at the time of the examination. It is to be considered whether this should be called intellectual training at all. True intellectual training should mean an independent habit of acquiring knowledge, of establishing hypotheses, checking and verifying them, and arriving at independent conclusions. For this purpose, two things are absolutely necessary : (1) a highly qualified teacher, himself enthusiastic about independent acquirement of knowledge; and (2) provision of a first-class library, laboratory and workshop. Given these two, the method will evolve itself and under the guidance of an able Principal, it should not be difficult for students to imbibe correct intellectual habits which will enable them to be good research scholars later on.

The problem of character training is not so easy to solve. An atmosphere has to be established in the school where naturally the better elements in a young man constantly and continuously prevail over his undesirable tendencies. All of us have both tendencies, the bad and the good. The good man is he whose better nature prevails over his worse usually, if not at all times. If the school can succeed in providing an atmosphere where better nature automatically finds an outlet, it will succeed in not only eradicating the problem of indiscipline but also in inculcating desirable traits of character in the students. How to produce or provide this atmosphere will again depend on the character and personality of the Principal as well as of the staff. If students see by example of their teachers paths of sincerity, true goodness and simplicity, followed day in and day out, they will naturally try to translate the same qualities into their own lives and in this way the first and perhaps the last step in character training will have been taken.

Training for Democracy

The organizational set-up of our new school has also to be adapted so as to be more responsive to the political ideals of our country. Most schools in India are still organised on a totalitarian basis where the Headmaster is looked up to as the institutional God, subject only to the dictates of a usually ignorant financing body called variously as 'Managing Committee', 'Governing Body', 'Parent Body', etc. The present revised Grant-in-Aid Code of Maharashtra has provided for a teachers' representative to work on the school Committee and a Teachers' Council to advise the Principal on day-to-day affairs of the school, but it is sadly lacking in the provision of a Students' Council to manage student affairs and discipline. A good school must share the day-to-day responsibility of student management with an elected

(Contd. on page 280)

STUDENT-TEACHER AND PARENT-TEACHER ROLE IN EDUCATION

By Prof. R. M. Desai, M.Sc., Khalsa College, *Bombay*

The profession of a teacher is at the present moment at cross-roads, like many other front-rank problems, in the life of a person in to-day's changing world. This is especially so with the higher education at the college level, where, with the change-over in human body metabolism at this period, the mental faculty of students is developing fast such that it must be properly utilized in the perception of true and fundamental knowledge by teachers in colleges and universities to be of real use, so as to mould every individual of a country into a true and worthy citizen.

It is the prime task of every teacher, experienced as he is in the art of teaching, to stress eloquently the proper method of approach to study on the part of students. Such a method is essentially needed for our present-day students who have taken to new pseudo-habits of life that have inadvertently distracted them to equally pseudo-habits in studies by the method of cramming with less of understanding of the fundamentals of a subject or subjects. The result is that knowledge gained by this method is momentary and not permanent. The present-day college teacher in imparting knowledge to students at a higher level must, therefore, all the more evolve such a method of teaching as would leave a permanent impression on the minds of students of the subject-matter he is teaching.

The teaching profession is intimately connected with two types of individuals in a human society, namely the parents of students and the teachers. Both these types of individuals are in a way responsible for moulding the educational career of young men and women who are to be educated in a right type of atmosphere so as to enable them to take their proper place in the national life of a country.

Parents

Of this two types of individuals, the parents play a supervisory role in the education of their children, whereas the teachers play the fundamental role of imparting education. Parents are parents in the sense that they pay rents for the children in the form of fees, books, food, clothing, shelter and, above all, the fulfilment

of moral obligations in the discharge of their duty of giving the best of education they can bestow. Perhaps, the only fundamental role the parents can play in the educational career of their children is in the early childhood of their sons and daughters. Biologically, every living human individual is a product of 50% heredity and 50% environment or training that an individual gets in his or her life-time. We are all indebted to our parents for what we are in our life, for they have transmitted into us their hereditary characters, good or bad, on which we, as individuals, can build some good healthy traits for which some environment is necessary. Heredity is just like an exposed photographic film, the nature of the photograph depending upon the nature of the exposure. Thus, the training that young boys and girls get in the early part of their educational career from their parents forms the very basis of the complete edifice which later on takes a full-fledged shape in the sound educational career of a man and woman through the cumulative efforts of their teachers.

Since there are three phases of education, primary, secondary and higher education, there are as well three categories of teachers handling these three aspects of education in the life of a human being.

Primary Stage

In the primary phase of education, a teacher is simply concerned with the delicate task of handling for the first time the mental faculty of a young child which he tries to mould so as to fit into the system of education commensurate with the first four years of the primary education and to be useful in the later phases of secondary and higher education in the natural code of procedure. Here, whatever a child learns is learnt merely through the habit of cramming or mugging, without little understanding of the fundamentals excepting the morals of the lessons it takes, and this seems to be the most logical process in the primary phases of education.

Secondary

Real learning is done in the secondary period of education which extends over a period of seven years in our country. Here, the entire teaching done by teachers and the learning on the part of students appears to be comparatively a process, where a student is made to study quite a number of subjects, though at a lower level. During this secondary phase of education, an attempt is made to create an incentive amongst students to study both by a process of cramming as well as understanding simultaneously, though on many occasions students fall back on their mental faculty of reproducing what they have crammed.

The Last Stage

In the higher education which is given in colleges at University level, the entire trend of education changes rapidly and abruptly. Here, the students show tendency to be mature biologically when the metabolism of their physical body begins to change. During this metabolic change-over every individual steps from his general body growth into a new field, namely the reproductive growth. When such a change in the body metabolism is effected, the sex-hormones that are for the first time secreted begin to play their significant role not only on the body physique, but also on the mental faculty of an individual. The pituitary gland in a human brain is then set in functional motion so as to control all these hormonal secretions of the human body, and this gives a sudden push to the mental faculty of person resulting in up-grading of the thinking power of his mind. This all happens almost at the same age when students normally enter the portal of higher college education, so that it is all the more in the fitness of things that the method of imparting education in colleges should and does change radically. Education in colleges is imparted by lectures which are meant to be perceived by the mind of students.

Imparting knowledge by lectures is a quick process in education at the college level, where a student is to be prepared for his University degree in a relatively short period of mostly four years only. Here, there is no spoon-feeding done by teachers who are all the time engaged in teaching the fundamentals of the subject-matter under their care, leaving the students to do all the details thereof themselves. Thus, students in the real pursuit of knowledge are supposed to make their own lecture-notes during the lecture periods, and later immediately subsidise them at the end of every period by making additional exhaustive notes from the reference books on the subject in the college library. This library habit coupled with the lectures delivered by college teachers is bound to lead a student's mind to study any subject with perfect understanding, and, if followed properly, will automatically eradicate the all too old practice of cramming or mugging of school days, so as to give correct expression to his or her thoughts with logical understanding when writing answers to questions in examinations, or attending tutorials or seminars, or taking part in debate.

Co-ordination

This background of the intimate relation between teacher and student, if assimilated in its proper perspective, should rightly endeavour to co-ordinate the efforts of parents and teachers in the joint role they seek to play in the process of imparting true and national edu-

cation to the future savants of the country, some of whom, when called upon to bear the administrative yoke in the varied spheres of national activity, would turn out be the kind leaders our country needs so badly to-day. In this context, it may be suggested that so far as the college education is concerned, where especially the parents seem to slacken the supervisory responsibility over the education of their children who appear to have grown beyond their control and care during their college studies, there should be frequent personal contacts between the college teachers and the parents of students, at least *four times every academic year*, namely two mid-term meetings each at the end and two meetings of every term. Such contacts would frequent the parents to know the overall progress of their children in the matter of attendance at lectures, practicals, tutorials, seminars, library-reading, test and terminal examinations, and other extra-curricular activities of the college. All this can be efficiently done in the presence of students themselves with the help of records kept by respective teachers in charge of these varied college activities. Such periodic conferences between parents and teachers are bound to have a singular *moral* effect on the minds of students who would surely develop thereby a sense of regularity and method-sicity in work and habits aimed at increased mental faculty and its correct application to the day-to-day problems of knowledge and education that seem to confront them. This would in the end result in the basic improvement of the university examination standards of the colleges concerned; and, above all, in the innate gain of confidence in students for the pursuit of true knowledge.

(*Contd. from page 276*)

body of the students and in this and other ways familiarise them with the processes of democracy. The future leaders of a 'sovereign, democratic Republic' must themselves have been convinced of the efficacy of such a system, in this school life, and true conviction of such efficacy can come only by passing it through the test-tube of experience.

These are some of the observations of a broad nature that will, if duly considered, help us in building up the New India.

THE MOTHER TONGUE

[Need for its study and its cultural value]

By :—Dr. N. R. Parasnis, Principal, Secondary Training College,
Bombay.

The place of the Mother Tongue in the educational system needs no emphasis theoretically as it is the most natural medium of education. It is through the mother tongue that the child easily masters the four language skills, viz. speaking, reading, writing and understanding. It becomes the best tool for the child to acquire new knowledge and information. Moreover, it is through the mother tongue that the child can well express its ideas and thoughts. Thus the mother tongue is very useful for the child to acquire new knowledge easily and naturally, and express itself effectively.

Further, the basic language skills which the child develops in the mother tongue are useful to him for learning new languages whether national, classical, international or any language. Thus it should be conceded that the study of the mother tongue forms the basis for the study of other languages. And the importance of this statement should be clearly borne in mind where the child has to study more than one language besides his mother tongue.

Not that the mother tongue helps the child to learn other languages in a better manner, but it at once becomes the tool for acquiring new knowledge in different and difficult subjects. And it is beyond the shadow of doubt that the child can effectively make use of knowledge in different branches, whether in writing or in speech. It is, therefore, essential that the educator helps the child to be the 'master' of the mother tongue.

The Three-Language Formula

Generally there happens to be no disagreement with the views expressed above, but the importance of English as it obtained in our country in the past and as it obtains even at present has pushed the claims of the mother tongue into the background, so much so that many parents and many educational institutions deny the child its birth right to learn its own mother tongue. Possibly their aim must have been to equip the child with the mastery of English right from the beginning of the child's education, with a view to getting lucrative jobs and eminent positions in later life. But it is now time for tho-

ughtful parents and responsible educators to notice the changes that are slowly coming up in the body-politics of our country. Consequent upon the reorganisation of provinces on the linguistic formula, it is but natural that the regional languages will have to come into their own. The Government of the people, for the people and by the people will have to be carried on the people's languages. This will mean that the regional languages will have to be studied at all the levels of the educational system. And in no distant future the regional languages will have to enter the Universities. Even if the regional languages will occupy an all-important position in the respective States, the official language—Hindi—will have to be studied for all-India communication, and English—the additional official language for international contacts. This three-language formula which has been decided for our country will have to be accepted by all, in spite of their full agreement.

Emotional Development and the Mother Tongue

Even this three-language formula has the mother tongue at its base. And this is certainly educational. Apart from the intellectual development of the child, its emotional development needs to be considered. As modern education lays stress on emotional development of the child with a view to developing the personality of the child, it is necessary that the child gets proper scope to develop its emotions. The first step to emotions is the feeling tone of the child. The feeling tone is stimulated by whatever is creative. Whichever piece of art one can think of has an appeal to some feeling or the other. A poem, a picture, a song, a ballad, a statue, a dance, all these are bound to stir an emotion in the mind of the onlooker or the participator. And if this artistic stimulation is created through the mother tongue of the child, it goes home directly and promptly, as it is through his own familiar indigenous forms of beauty. Aesthetic appreciation thus can easily be developed in a natural and effective manner through the study of the mother tongue. Apart from the emotional development of the child, this sort of aesthetic appreciation will help later all the members of the society to come together to participate in and to appreciate the different forms of beauty which are reflected in dramatic, artistic and cultural activities. One doubts whether a child who is denied the privilege of learning the mother tongue and thus denied the change of coming together with the other members of the society, can ever become a fitting member and a responsible citizen, because of its alien cultural contacts and aloofness from indigenous ones where it has to live for long. If the fruits of culture are to be enjoyed by all the people, it is absolutely necessary to educate them through their mother tongue. It should be noted that

only the selected few can profit by a foreign language. But democracy has got an appeal not to the selected few, but to the millions of "masters", viz. the masses, and hence democracy in any country can be built up only on the sure foundation of indigenous culture. And the language of its people is the most important tool of that culture. Hence it is worthwhile for the parent and the educator to think whether children should be denied the study of their mother tongue.

Its Cultural Value :—

One does not generally and fully realise the force the mother tongue wields. It can only be seen in the policies of the foreign rulers everywhere. The first thing that the foreign rulers do is to impose their language on the conquered people and to discourage and suppress by all means the indigenous languages. This policy helps them to continue their ruling power. But the moment the conquered people start thinking about their own language, their culture, their heritage, a ray of nationalism dawns which leads to national struggle. In this invariably national struggle, the policy to encourage indigenous languages occupies a prominent position. Because it is through the language of the people, that the masses who have lost their confidence are stimulated, and it is found that this re-awakening strengthens the national feelings. A student of history will point out that even the political leaders have made the use of the mother tongue to rejuvenate the fallen nation with the result that they have succeeded.

Apart from mastering the elementary language skills, it must be noted that the child's emotional development depends upon its study of the mother tongue which feeds it with indigenous culture. This acquaintance with indigenous culture enables it to mix freely and naturally with great numbers of the society of which it is a member. And it is through effective participation in social, cultural and artistic activities that a sense of social solidarity will emerge. What India needs today is a sense of *social solidarity*, which can be easily had, if the child from the very beginning develops the study of the mother tongue which is an important instrument of culture.

'EXAMINATION REFORMS'—A BRIEF SURVEY

By :—G. S. Dusane, M.A., M.Ed., Evaluation Officer, Poona

In the special issue of the *Progress of Education* (November 1963) five good articles on 'Examination Reform' have been published. Some of the important points discussed in these articles are given here in order, with their salient features and my individual observations regarding them.

Directions of Examination Reform :—This article by Shri. H. R. Sharma analyses the full situation referring to the following particular aspects:— (1) Place of Examination in Education. (2) Defects of present system of Examination. (3) Certain Directions of Reform. (4) Gearing the Examinations to Educational objectives. (5) Question papers. (6) Type of Tests. (7) Essay Type Questions. (8) Objective Type Tests. (9) Reliability and Validity. (10) Scoring in Examination. (11) Weightage to Internal Assessment, and (12) Examination and Improvement of syllabus.

Examinations have become a powerful force in our educational system. Complete overhauling of the same is the need of the hour. Examining bodies have become centres of producing a mass of standardised pupils, setting a seal of approval and making them an acceptable product in all walks of life. The entire goal of education is defeated, due to the various defects that are impregnated in the system. Some of the salient defects are : (I) The growth of progress is hindered (II) Aims of Education are lost sight of. (III) Teachers prepare children for examination and not for life. (IV) Spoon feeding is encouraged. (V) Cramming on the part of the pupil is also encouraged. This state of affairs cannot be allowed to continue. These defects must be overcome by gearing the examinations to educational aims. How to get it done? The following is the solution offered by the writer, which is certainly thoughtful and guiding.

Without reforming the question papers, attainment of desirable purpose is impossible. They should be objectively based, designed to test the abilities and skills of the pupils, application of knowledge, reasoning, comprehension, etc. However, deciding the purpose of question paper is not enough. The paper-setter will have to decide also on a suitable type or form to test the outcome of learning effectively, economically and objectively.

In our external examinations only two types of questions are commonly used (1) The Essay type and (2) The Objective type. The essay type questions predominate and have been the root cause of all

evils. The objective type tests have not yet been common. The form of the essay type questions requires to be basically changed. We cannot also ignore the intrinsic values of this type. We have to remove the limited range of educational objectives and vagueness. Objective type questions could be used to supplement essay type questions in the right direction. The scope of the use of these objective tests is so great that it has become a separate subject of study in itself.

The validity of a test depends on many factors, i.e. clear preception of the objectives, selection of the subject matter, form of the test and situation created for testing. Reliability of test presents framing it in such a way that the range of scores and answers, when the test is administered, corresponds to the total possible range of scores.

'Scoring in Examination' is another important aspect, since it decides the fate of the pupils. Scoring of essay type questions demands urgent attention. There is much scope for subjective assessment. This could be achieved in three ways. (1) Preparing model answers in advance, incorporating all points. (2) Keys should be ready for objective type tests. (3) Each student's answer should be scored, according to the master list of points.

There is an urgent need for internal assessment and assigning of proper weightage to it in the external examination. If the examination system is really to be improved; the resultant change should be reflected in the syllabi prescribed. General study of syllabi shows that they contain information only. There is, thus, a great need for revising our syllabi in the light of educational objectives to give new dimensions to education. Some interesting information on this will be available from the books "Report of the Training Course on Evaluation" and "Improving Examinations," published by the Directorate of Extension Programmes for Secondary Education, New Delhi-1.

In the Second article by Dr. Mehta, "Development and Assessment in Non-Cognitive Areas," the writer stresses the point that in view of our national objectives of socialistic pattern of a democratic society, certain personal and social qualities in our pupils need to be developed. Accordingly, a number of activities will have to be organised in schools.

Dr. Prayag Mehta points out how this could be done in an effective manner. He also refers to the important assessment in this reform.

Such activities must be planned and executed by the pupils themselves. Teachers should develop proper relations with the pupils. It is the teacher who can develop or hamper the personality of his students. Assessment of all such activities is a difficult job. This could be done in the following ways:— (1) Observation (2) Anecdotal records and

use of rating scales. (3) Administering psychological tests. This is a burning topic at present. Our secondary schools need definite guidance by way of the general procedure, technique of counting the marks and the methods of assessment.

In the third article, 'Essay Type Questions', the writer details the following points. At present the essay type questions predominate our question-papers. A general criticism levelled against this is that they are unreliable. The main reason is that they expect long answers and the wording is too vague. These two defects could be overcome by wording them more clearly and specifically, and by improving the scheme of scoring. To improve the wording, the verbs need to be carefully defined and used, and the degree of elaboration should be indicated. For improving the scheme of scoring, the questions should always be accompanied by model answers, along with a 'quality scale' letter grading like A, B, C, D and E. Usually, 20% of the answer books are moderated. Instead, essay-questions should be assessed by at least two examiners and the average be taken as final. For the sake of uniformity, paper-setters should provide a general frame of reference in terms of purpose. This will help the examiner to know what points are to be looked to and how many marks are to be awarded.

Reducing the length of the answer is a definite solution to remove subjectivity. If the length of the answer has a number of points or aspects, then on each of them a short question can be framed. Short answer questions can command a wider range of the syllabus. Some more information on this point will be found in the pamphlet "Improving Examinations," by Directorate of Extension Services Programmes for Secondary Education, New Delhi.

In the next article, 'Objective Tests,' Shri. S. N. Saha, New Delhi discusses this subject through the following aspects e. g.

(1) Advantages of objective Tests. (2) Potential pitfalls. (3) Prerequisites of objective Tests, and (4) Forms of objective Tests.

(1) Advantages:—

These tests are more scientific since they satisfy the criteria of a good examination, i. e. validity, reliability, objectivity and adequacy. They are good diagnostic and achievement tests. They motivate both learning and teaching.

(2) Potential Pitfalls:—

There are, however, some pitfalls too. Memory and reasoning questions are likely to be mixed up; sampling may be poor and scoring imperfect. There is also the danger of tests becoming mechanical. Previous administration of these tests is essential for time required. It is also desirable that these tests should be given separately. It is likely that pupils will attempt these only and neglect the essay-type ones.

(3) Pre-requisites:—

Framing the objective tests constitutes an art in itself. It presupposes so many things, e. g., thorough mastery on the subject, choosing the sample, consideration of the grading difficulty, and careful use of words. It should not admit of different questions. It needs preparing the scoring key for all items—

(4) Forms of objective Tests:—

The following are the forms of objective tests :—

(1) Multiple choice. (2) Matching. (3) Alternative response items and (4) Simple recall items.

(5) Optional Questions in Public Examinations :—

Shri. Y. B. Patwardhan examines this problem in all its perspectives and offers his final views regarding the place of optional questions in our public examinations. There are as many as five different ways, as he remarks, of putting questions: (1) Overall choice. (2) Choice within different sections. (3) Choice within a question. (4) Making some questions compulsory and allowing choice for some questions and (5) Combination of the above ways.

Defects—Overall choice encourages students to leave out entire topics or areas in the syllabus. Choice within the different sections also involves omission of some topics. And choice within the question itself may involve completely different types of activities.

Various arguments in support, e. g. tradition, giving confidence to students, better coverage to papersetters, provision for individual difference and introduction of new trends, cannot be held valid. A research study on this problem by John. M. Stalnekhar does not also support the place of optional questions in examinations. Again their validity and reliability is questionable. Responses cannot be compared. Different questions cannot be equally assessed. The difficulty of choosing the representative samples is also there. Brighter students spend time in choosing, while the poorer ones do not. Provision of options creates hindrance. When all questions carry equal marks, then is there any reason why bright students should select difficult questions? A student attempts more than the expected number of questions and the examiner has to assess all, resulting in his waste of time.

For the above reasons the writer recommends that such optional questions should not be included in the examination question papers. One would have liked some measures to have been suggested by the writer to replace such options. Readers will be interested in the magazine, "Teachers Education", which gives a lot of information in its issue.

INDIAN MATERIALISM—ITS POSSIBLE EDUCATIONAL IMPLICATIONS

[Part II]

By:—Prof. Rajendra Pal Singh, M.A., M.ED., *Mathura*

According to Samkhya philosophy God is inactive and does not, therefore, create the Universe. It is nature that creates and in her creation it does not require any external help. It further asserts that nothing ends in this world; it merely changes its form. I do not say it is exactly like Marxian stand that matter changes merely its form but never dies out. But it very nearly comes in being a close parallel.

When we come to Buddhism and Jainism we see them revolting against the whole Brahmanical order and their beliefs in God, Soul, the Vedas etc. Whatever may have been the reasons for this revolt, for I have no wish to go into their details at present, Buddhism denied the existence of God, soul and the rest of their constituents. Rahul says Buddhism in itself was a great revolutionary philosophy. It asserted in the constantly changeable nature of this world, society and the people as against their supposed permanence held by some Brahmanical schools of thought. I do not say that Buddhism is in any way a materialist ideology but in so far as it denies the existence of soul as independent from body, permanency of things and a creator, it comes very close to maintaining a position held by materialists. (See : Nagsen, *Miland Prashna*)

A contemporary of Buddha, Ajit Keshkamual, maintained, "There is no God—Man is made of four elements. When he dies the elements are mingled in the elements from which he had originated—earth in earth, water in water, fire in fire and air in air—whether a fool or a scholar; after death nothing remains—(free translation from Rahul's *Darshan—Digdarshan*, p. 480)

It would appear that materialism as a system of thinking could not thus be new to India. In fact, we have in the Charvak school a consistent materialist exposition of Nature and man. Undeniably, it differs from the modern interpretation of materialism but then, are not the reasons for all this obvious? Philosophy, it must be said, reflects both the mental and material conditions of a people. It records their

In Part I, the writer shows how Materialism prevailed in ancient Times and gives its brief history.

reactions towards various problems. To the extent the cultures, times and material conditions and such like differ, the differences in even similar philosophies can be explained without much difficulty. In this case also it is not the dissimilarities that should attract our attention but their striking similarities.

It is true that we have now extant only the indirect references that were made to the Charvaks. Even then there is sufficient material which could give us a clear and logical view of their philosophy. For ever obvious reasons they do not appear to have been popular with the upper classes or priests. This explains to an extent the decisive way they were referred to or talked about, especially when we know the known literature was mostly written by the members of the aforesaid classes.

The Charvaks maintain, for instance, that truth can be known only by direct observation. In agreement with Chhandogya Upanishad they aver that Soul and Mind are material. (Bhartiya Darshan Dr. Umesh Mishra, p. 88) For them, for the creation of the world there is no need of a creator. The whole process is evolutionary. Every thing is born because of a series of accidents. Even such things as beauty, smell, etc. are made of constituents that are essentially material in nature. Since they don't believe in the existence of God, Soul etc., or shall we say, since they have explanations for their disbelief, there are indications that they ought to have become unpopular among the class of people for whom the best explanation of an object or action is the "will of the God". For the Charvaks there is no Hell or Heaven, and the soul is not independent of body even, as in Chhandogya Upanishad it has been said very clearly. (See, Bhartiya Darshan, Dr. Umesh Mishra, p. 95)

In this background an educational interpretation of materialist philosophy will not probably be considered unwarranted. Of course, we know for sure it was never thus interpreted. Still in view of the Marxian interpretation of ancient Indian materialism, in my opinion, it can provide an alternative educational arrangement to the one which is actually being practised now. My whole effort is directed to defend the view-point of those who do not wish to give religion an important place in education and propose to stress the need for technical and scientific education.

CORRESPONDENCE

A needed clarification

Sir,

With reference to Prof. M. G. Deshpande's article published in September (1963) issue of your eminent journal, containing an observation on the Muslim-Christian theological controversy in which Roman Catholic priests are involved, Dr. G. M. Moraes, an authority on Indian History, has kindly supplied the following correct data :—

The passages quoted by Prof. M. G. Deshpande about the Agra Debate (1848) are in the *History of the Church Missionary Society* by Eugene Stock (London 1899). It is in Vol. II, pp. 169.71.

The source of this information cited by the author (Stock) is Pfander's (one of the disputants) account of the Discussion, as printed in the *C. M. Intelligencer* of November, 1854. On the face of it, however, it would appear that Pfander jumped to the conclusion that the Maulvis were assisted by the Catholic priests from the attack they made on Luther and the Reformers. But Pfander is reckless in his charge that the Maulvis received help from the Catholic missionaries for their criticism of the Bible as well, for which they had enough material in the books they are supposed to have piled up, viz., those of Horne, Michaelis and Strauss. It is a matter of common sense that neither the ones would ask nor the others give such assistance.

We are thankful to Dr. Moraes for having taken the trouble to investigate the authoritative source and offered his opinion at our request.

Yours sincerely,
Bombay Readers.

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Manager,
THE PROGRESS OF EDUCATION

REVIEWS AND NOTICES

ANCIENT INDIA: CULTURE AND THOUGHT

By M. L. Bhagi. Published by The Indian Publications, Ambala Cantt. 200 pp. Price Rs. 12/—.

This scholarly work deals with a subject which is so much talked about and written about too, one that has demanded the literary labours of many an Indian historian and foreign savants too. One would naturally question the propriety of an addition to that vast material. However, a careful perusal of this book with its up-to-date research information convinces the reader that the book has a definite purpose to serve—and it does so very creditably—, the one of making the reader familiar with the evolution of the various forces, social, political and spiritual, that enriched the India of the past. The book reads like a story that takes the reader on from the period of the Vedas to the present modern times, from Ashoka to Gandhi.

Particularly illuminating to the teacher is the chapter on 'Education', that begins with the educational system of the Vedic period, telling the reader about Gurukulas, Taxila, and the heritage of the ancient seers which kept the torch of learning aflame through various vicissitudes.

The Chapter on 'Vedic Literature' which embodies the highest philosophy of the Aryans is also worth careful reading and supplies the learner with some revealing material and inspiring thought. It shows how society was at that time most advanced and even in those periods democratic ideas ruled the land and how the welfare of the nation was an ideal practised by both, the high and the low. Other facets of

literature and social activities are also referred to and we are shown how they reflected the ideology and the culture of the country one is reasonably proud of.

In brief, it can be said that here is a comprehensive and informative publication that deserves careful study which is bound to be rewarding. Teachers—particularly history teachers—can, with benefit, use this work as a reference book, while others too can get much reliable information of the thoughts and social conditions of the ancients, which will be a leading light for their own improvement and also for those they are interested in. In a way, the book offers us, besides information, a philosophic vision that reveals the greatness and enrichment of human personality and preaches convincingly the eternal truth: 'The soul of all improvements is the improvement of the Soul'.

* * *

FOUNDATIONS OF CHEMISTRY

By I. D. Clark and J. C. Spiring: Macmillan & Co. Ltd. (London), Bombay, 532 pp.

This publication is intended to provide the requirements of the full five year Chemistry course in secondary schools in Great Britain. It has a special feature, that of presenting the required material in such a way that theory is harmoniously linked with practice and the basic principles explained, together with the necessary facts that embody them.

The foundations of this subject whose importance is now fully realised in our country as else are given in five parts, in which they are presented with their details and upto-date information. They are : (i) Descriptive,

(ii) Deductive, (iii) Routine and Analytical, (iv) Commercial, and (v) Historical and Philosophical. To every part, there is an introduction which treats of its salient features.

The last chapter is most important and can be—or rather must be—read by all as it gives not only a historical survey of the progress of science of this section but shows its limitations and its relation to the progress of knowledge in other fields of human activity. It provides balanced and reasoned arguments based on a factual background. It rightly concludes with the following words :—

“What surely matters ultimately is the capacity to think about that knowledge, and, in so doing, to bring to bear upon our society some moderate measures of influence, however, small”.

The questions at the end of every chapter are certainly typical, testing and thought-provoking. There are ‘references’ given for further study of the matter presented in that chapter. It is now possible here to refer to the other factors that distinguish this publication. Suffice it for us to say that the writers have spared no pains in making the book as perfect as possible, as a model scientific text-book (and a reference book too).

We have not the least hesitation in stating that the book deserves to be used as a text-book in our colleges and should be studied carefully by science teachers as well as others who need to know the progress and principles of this important part of science which has become a part and parcel of human life and whose frontiers of knowledge are every day increasing.

THE IRRAWADDY

By Peter Simms [Illustrated by A. M. Hughes]. Rivers of the World Series : Oxford University Press, Bombay 1, 32 pp. Price 2 s. 3 d.

This is a small but useful publication of the Oxford University Press, coming from the pen of a well-known

writer, Peter Simms. The object of the Series of which this book forms a part is to give geographical knowledge of the important rivers in the world and their social, political and economic impact on the people and the country they flow through.

In this book is presented, in the form of a lively narration, information regarding the river Irrawaddy which is formed by the joining of the rivers, Makho and Malikla, in Burma. We find that the cities located on the banks of this river are rich in Buddhist architecture and that the river has played an important role in bringing prosperity to the people, contributing richly to the Buddhist culture that stands for unity, non-violence and real knowledge of the spirit. We are also shown, through suitable illustrations and a creation of homely atmosphere, that are bound to appeal to youthful imagination, how the river has influenced and built the agricultural, and commercial life of the common man in Burma.

The Series (as we have already remarked in our review on ‘the Indus’) combines geography with literature and offers information to young readers. We most heartily recommend the present publication to our schools as well as to public libraries.

R. S. S.

* * *

THE POST OFFICE

(English Conversation Series. Book I.)

By Mrs. Sarojini Dhavale, Pushpak Prakashan, 377, Shanwar Peth, Poona-2. 40 pp. Price 65 nPs.

This book, as its title indicates, is an attempt to introduce English conversation to the secondary school students, through the subject, ‘The Post Office,’ a familiar one. English is a foreign language and so conversation in it demands careful planning and study. This book will enable the school teacher to inculcate the art in students. Besides, it will provide the students with a detailed and practical knowledge of

the working of the post office and satisfy curiosity regarding the useful service rendered by the Postal Department.

The book is written in a very simple language. The dialogues are interesting and have a homely atmosphere. All important and difficult words are explained at the end, both in simple English and Marathi terms. This will add to the students' vocabulary. The book is divided into suitable parts with an appropriate heading for each. Pieces from the book can be selected for dramatizing at the school gatherings, or students may be asked to learn them by heart to get themselves familiar with the spoken language.

Needless to say that English being an international language, students should be taught to converse in it. In the modern industrial and commercial world, a good command over English is a great asset. This book will provide a valuable aid to the teachers to teach this art of English conversation. The publisher has undertaken this series to cater to the long-felt need of the students with a laudable motive, with the intelligent co-operation of the writer who is an experienced head of Poona High School. The subjects selected for the future books in the series given on the back cover are all important and interesting. It is trusted that the heads of the secondary schools in the State, teachers in English and the educated parents will appreciate this project, offer due encouragement to this venture and popularise it among the student world.

G. R. K.

(i) MY GARDEN GROWS

Written and Illustrated By A. A. Watson. 32 pp. Price 12 s. 6 d.

(ii) HOW DOES IT GROW ?

By Ray Bethers, 48 pp. Price 12 s. 6 d.

Published by Macmillan and Co. (London), Bombay. Dr. D. N. Road, Bombay-1.

(i) This is a beautifully illustrated booklet that tells what goes on under the earth as well as above in the garden, where Nature dwells in plenty. Here is given a 'toads' eye view' of the growth of peas, cabbages, cucumbers and other vegetables which the reader can grow for himself or herself. The reading of such books is sure to appeal to the imagination of—and also to stir to activity—the young readers for whom these booklets are mainly meant,

(ii) This booklet comes from the pen of Ray Bethers, an associate editor of the magazine 'This Week' and one who has travelled far and wide. It tells of the fascinating story in words and pictures of many tropical fruits, nuts and spices. Information regarding the caravans of long ago, as well as the modern ships and steamers that carry cargoes of fresh fruit to ports all over the world is offered with beautiful pictures. We are told how sugar grows, how tea crop is carried, where coconuts grow and how rice grows in pools of water. Here is certainly a romantic show of the variety of things found on every one's kitchen shelf.

The publishers deserve praise for giving to the youthful readers such important information through attractive pictures.

R. S. S.

* * *

We have to acknowledge with thanks the following publications:—

(1) Education in Citizenship (Teaching in India Series) : by T. V. Nilkantam. Oxford University Press (London). 150 pp. Price Rs. 3/-.

(2) The Making of a just Society: By Chester Bowles. The University of Delhi, Delhi 6: 120 pp.

(3) Elementary Comprehension Pieces: By L. A. Hill. Oxford University Press (London). 64 pp.

(4) 51 Model Essays: By Prof. B. D. Sattigiri, Royal Prakashan, 27, Budhwar Peth, Poona 2. 80 pp. Price Rs. 2/-

(5) स्वाति [रजत महोत्सव अंक] Shet Tribhuvandas J. High School, Thana. Published by the Principal, S. T. J. High School, Thana.

(6) The Unesco Courier: (Jan. 64 XVII year) The United Nations Educational, Scientific and Cultural Organization; Unesco, Place De Fontenoy, Paris-7.

(7) Educational Psychology : By Dr. Prem Pasricha. Published by University Publishers Rly. Road, Jullundur City (Pb.) 290 pp. Price Rs. 8/-

EDITORIAL NOTES

A Bold Decision : Hasty or Helpful ?

It is reported that the Union Education Minister, Mr. M. C. Chhagla, has directed that most of the committees should be wound up as a result of his brief survey of their working. He has taken this bold decision after finding that many of them are unnecessary, while, in the cases of many, work is painfully delayed and recommendations made are remaining only on paper. It is also reported that he has issued orders that, when committees are to be appointed in future, they should be definitely told of their terms and will have to submit their reports by a fixed period. The details of the decision and its execution are not yet available, though it is given out that the Central Advisory Board will have to look to many of the items that these committees had to deal with and execute what they were expected to do.

This bold step meant to overhaul the machinery has naturally created a flutter in the educational world. Some newspapers have welcomed this step as a long-needed pruning, a delayed improvement. In their opinion it is easy to explain why such a decision was arrived at which would lead to efficiency and saving of time and expenditure. As the details are not before us and as we are not aware whether educationalists were consulted in this respect and their opinion sought, it is difficult to pronounce any final judgment on this venture.

Time will show

We have, it is true, criticised the working of the Government machinery as well as the dilatoriness and red-tapism on the part of the officers as well as the members of certain committees, on some occasions. However, we have much hesitation in welcoming full-heartedly this 'coming down with a heavy hand' and the abolition of some committees consisting of competent and experienced educationalists coming from different part of the country, particularly at a time when expert knowledge is needed for rightly directing the activities of the Department and understanding the complex problems facing the country. It is just likely, as some fear, that the step might prove 'penny-wise', and the gain in one direction might prove a loss in the other. Direct contacts with the States might be, no doubt, useful but there are occasions when the opinion of educationalists or rather their experience is of the highest value and their coming together for exchange of views and smooth co-ordination of their activities is sorely needed for strengthening the bonds between the workers. Needful reforms are bound to be welcomed by all and hailed as progressive. However, such a big overhauling, in which sometimes the essentials too might be pruned off, will be, one is tempted to remark, often a *game not worth the candle (or rather scandal)*.

We will write more on this in the next issue, when more details would be made known.

(Editors)

The Problem of Women's Education

It is in the fitness of things that the problem of Women's Education in India has come to the forefront at present and is attracting the attention of the political as well as social leaders. Top-most persons like the Prime Minister, Shri Nehru, Education Minister, Shri Chhagla, and Smt. Raksha Saran have drawn in their public utterances pointed attention to the need of reviewing the present unsatisfactory position of Women's Education in India. Some of the important points which these eminent critics have made out are really thought-provoking. First of all it has been pointed out that there is a glaring disparity between the pace of the progress of boys' education and that of girls. The proportion of boys and girls attending primary schools is, by and large, 4:1. In some States it is less than one, as far as school-going girls are concerned. Secondly, there is a tremendous wastage, particularly in the case of girls, the percentage of school leaving girls in between the secondary stage being very high. There is another aspect of the problem. Regarding curriculum it is necessary that great cultural subjects should be treated to sufficient depth to enable them to retain a life-long enthusiasm for the arts of life and in sufficient breath to help them to communicate their enthusiasm to their own children. It is also felt that the number of girls' schools in rural areas is too inadequate. Hostels for girls are found lacking on a very large scale in rural areas. The cost of education at the secondary stage, so far as girls are concerned, is becoming unbearable to the economically backward classes whose number is not certainly negligible. The crux of the whole problem is how to quicken the pace of progress of their education and to render it socially useful, in view of the universal truth that if one girl is educated, she will educate the whole of her family.

Some Suggestions*

We have no definite idea about the measures contemplated by the State and the Central Governments for improving the situation. Now that the problem has come into limelight, we would like to offer a few constructive suggestions to the authorities concerned. The Andhra Government has decided to impart free secondary education to girls; all other States in India should follow the example. Moreover, financial help for purchasing text-books, exercise-books and school uniform should be liberally given to the wards of poor parents. Managements willing to open hostels for girls in rural areas should be given cent per cent grants. Women teachers should be given full-pay leave during their period of training. With these facilities, girls' educa-

* In this connection, we would like our readers to refer to the latest issue of *Women Today* (Dec. 63) which tells how efforts are being made to improve them in various countries like Afganistan and Kenya.

tion is bound to spread at a very rapid rate. It will, therefore, be prudent on the part of the Government to plan various short-term post-Matriculate courses for absorbing the average type of 'S. S. C. passed' girls. There are numbers of one or two years' courses suitable for girls. Either Government must come forth to run these short-term courses or Government should offer liberal financial help and other facilities to private agencies that are willing to run these courses. Aware as we are of the financial difficulties in carrying out these suggestions, time has come when some definite steps need to be taken for qualitative and quantitative expansion and all-sided progress.

Prof. S. R. Kanitkar passes away

We are deeply grieved to record the sad demise of Prof. S. R. Kanitkar that took place on Jan. 25 in Poona. Prof. Kanitkar has made a mark in the educational field of Maharashtra as a very competent teacher, an able headmaster, a great administrator and, above all, an educationalist who dedicated the whole of his life to the cause of education.

He left the Deccan Education Society in 1934 after having completed his period of service as a life-member of that Society. In the same year he started in 1934, with the help of late Prin. V. K. Jog and late Prin. K. R. Kanitkar, the wellknown Modern High School. In 1939 the Modern High School, which was housed in Shanwar Peth, was removed to a grand building on the Jangali Maharaj Road. Prof. Kanitkar really did a fine job by securing the present site for the Modern High School. It is a pointer to his great foresight and sustained efforts for giving his School a really 'modern look'. Prof. Kanitkar retired as headmaster of the Modern High School in 1948, after realising his dream of starting a first-rate High School in the city of Poona. After retirement, he devoted himself to a new type of School started at Kamshet in collaboration with Prin. K. R. Kanitkar and Dr. Sardesai, on the lines of a Public School. This experiment had to be given up as the response it could evoke was very poor and discouraging. He was also a member of the Poona City Municipality for a period of 22 years. He became the President of that Municipality by dint of his meritorious services to the civic life of Poona City.

As headmaster of the Modern High School he made his mark as a strict disciplinarian. It was due to his sustained hard work and spirit of dedication that a great institution like the Modern High School rose to its present height. The icy hand of death has removed a very dynamic personality from the educational field of Maharashtra. May his soul rest in peace !

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