



CONTENTS

	PAGE
Training for Democratic Citizenship in Secondary Schools. By Sri M. A. Srinivas, B.Sc., B.L., B.T., Goribidnur	233
How to Interpret Facts from World History? By Sri Manthripragada Rama Rao, M.A., B.Ed., Parlakimedy, Orissa	236
Vijayanagara : Hazara Ramaswami Temple. By Sri R. B. Pinglay, B.A., Bangalore ...	239
A Plea for Bengal-Wide Intelligence Tests. By Sri Jatindra Mohan Choudary, B.T., M.R.A.S. ...	240
Free and Compulsory Primary Education in Travancore. By Sri S. R. Venkataraman, Servants of India Society, Madras	242
Girls' Education—II. By S. P.	245
The Teaching of English in High Schools and Intermediate Colleges. By Sri Ram Prasad Pandeya M.A., D. A. V. College, Lucknow	246
Drama and the School	248
A Syllabus for Adult Education Centres. By Sri Anathnath Basu, M.A., Calcutta ...	250
The Maadhyamikaas. By Sri M. B. Narasimha Iyengar, M.Sc., Advocate, Bangalore ...	254
Geometry Teaching. By Rao Sahib R. Swaminatha Iyer, B.A., L.T., Retired Headmaster, Kumbakonam	257
Book Reviews	261
Editorial Notes	262

dev.

certain subscription inclusive
has to be Rs. 5.
to the full subscription, Rs. 3
on he may get

and good citizen.

leadership necessary.

life.

14/A, SUNKUWAR ST.,
TRIPLICANE, MADRAS
[All Rights Reserved.]

{ Foreign Subscription inclusive
of Postage Rs. 6-8-0.

Editor : Rao Bahadur Sri C. S. SRINIVASACHARI, M.A.

BOOKS ON SRI SAI BABA

Sai Baba's Charters and Sayings in English or Tamil	...	...	1	4
" " Vol. I in Telugu or Tamil	...	...	0	6
Wonderous Saint in English, Hindi, Tamil and Telugu	...	...	0	6
Who is Sai Baba, in English, Hindi Tamil and Telugu	...	...	0	1
Baba's Charters 1-57 only in English, Tamil, Telugu, Hindi and Canarese	...	...	0	1
Sagunopasana i.e., Shirdi Ritual with script and meaning in English, Tamil and Telugu	...	...	0	1½
Introduction to SAI BABA in English, Tamil, Telugu, Canarese, Malayalam, Marathi, Hindi, Urdu, Gujarathi and Bengali	...	...	0	4

ENGLISH

Sai Baba of Shirdi (Combd books of Intro. and Dev. Exp. 1 and 2)	...	...	1	0
Devotee's Experiences Part I (New Edition) by B.V.N. Swami	...	...	0	6
Sai Sudha Monthly, each issue	...	...	0	3
Sainatha Mananam in Sanskrit, Tamil, Telugu and Canarese Script by B. V. N. Swami	...	...	0	1½
Sai Pooja Vidhi in Tamil	...	...	0	1
" " in Telugu or Canarese	...	...	0	1
" " in Sanskrit	...	...	0	2

Secretaries: A. I. S. S. and CENTRAL SAI STORES,

126, Brodies Road, Mylapore, Madras.

NOTICE

Contributions: The Editor solicits contributions on all subjects of educational interest. Articles generally need not be made longer than 2000 or 2500 words. They should be legibly written, preferably typewritten so as to permit the incorporation of editorial revisions and instructions to the press. Acceptance and publication of an article do not necessarily imply that the Editor endorses the views expressed therein. Stamps should accompany the manuscript, if the writer wishes it returned in case of non-acceptance. The Editor cannot in any case accept any responsibility for the return of any manuscript submitted.

Subscriptions: All remittances and communications on the subject should be addressed to the Publisher, 14/A, Sunkumar Street, Triplicane, Madras. It is requested for facility of reference that the subscription

number, printed on the wrapper, should be mentioned in all such communications. Subscribers will generally be informed of the expiry of their subscriptions well in advance of the date of such expiry, but it is requested that instructions for renewal or discontinuance may be sent even in the absence of such notice. Subscriptions are strictly payable in advance.

Date of Publication: The Review is published on the 29th of every month. Subscribers who do not receive the Review in time are requested to notify the management immediately. It may not be always possible to supply the missing copies if complaints are made months after the date of publication nor under such circumstances enquiry be conducted in the matter.

Reviews of Books: The Editor is glad to notice in the columns of the Review books of educational and

The Educational Review

A MONTHLY RECORD FOR INDIA

VOL. LI

OCTOBER 1945

No. 10

TRAINING FOR DEMOCRATIC CITIZENSHIP IN SECONDARY SCHOOLS

BY SRI M. A. SRINIVAS, B.Sc., B.L., B.T., Goribidnur

EDUCATION has always been a social process. The school has a dual function to fulfil. It not only seeks to transmit the culture of the race from generation to generation, but also helps to train the future citizen of the country, so that he may effectively participate and successfully play his part in the society of which he is a member.

This social aim of the school has gained very great importance with the growth of democracy and the success of nations upholding the cause of democracy. The scope of the function of a school in a democracy is far greater and its responsibilities more immense than those in a dictatorship. In a totalitarian state, the school is a mere handmaid of the state, instilling in the minds of the pupils ideals of obedience and loyalty to the government in power. But in a democracy, its creed compels us to regard each boy or girl, not only as a member of the community, but also as an individual entitled to the fullest measure of self-development and independence within certain limits. The personality of the pupil has to be uniformly developed on all sides, to the fullest possible extent, so that later on he may grow into an efficient, capable, and good citizen with the character and leadership necessary for a successful social life.

Among the various social agencies that influence the young man, the school, especially the secondary school, has the maximum advantages and opportunities for giving him the preparatory training necessary for citizenship. It has all the characteristics of a miniature world and represents the various forces interacting with each other in society on a miniature scale. It provides for a larger group than the home and its members are drawn from various communities and homes with different social, moral and intellectual outlooks. In short, both by nature and circumstance, the school creates a broad and complex social environment and provides ample opportunities for training in successful social life. The pupil in the secondary school has reached a stage when he is capable of understanding the fundamental factors affecting social life to a fair degree. He is alive to the various forces that are influencing his society, and often he attempts to judge them and play his part along with them.

The secondary school has a very important place in citizenship training for another reason. The majority of students who join the secondary school, in a poor country like ours, do not continue their studies further. On the other hand, they enter into public life and play their part as important citizens with only the equipment that they get from

secondary schools. Consequently for many of them, it is the training received in the secondary school that is of utmost importance and value.

In the first place, knowledge is essential for effective citizenship. Every citizen must possess a basic culture, which will at least enable him to form an intelligent view of facts and events around him and act in such a manner as to realise his interest and progress along with the well-being of the society. He must possess a sufficient command over his own state language, so as to be able to express himself fluently and effectively. More than all, the school must develop in him a definite social philosophy or outlook, which will give him the required vision and idealism to strive for the well-being of society and subordinate his views, whenever they are in conflict with those of society. Of special significance in the secondary school curriculum are subjects like Indian history, world history, geography and civics, which provide the pupil with knowledge of facts and events that bear a direct relationship to citizenship. These subjects must be taught, as far as possible in relation to one another and their facts correlated and presented in such a manner as to stimulate pupil enquiry, insight, and understanding of the fundamentals of political and social life with the background and vision of historical events and examples.

Mere accumulation of facts and events without the capacity to evaluate their merit and apply them to current affairs would not be of any use to the pupil. Knowledge is only a means to an end. Hence the school should stimulate pupil interest in current social problems and events, develop powers of enquiry, analysis and understanding of these problems and events in their proper perspective, and train them to judge their relative merits and defects. A proper use of the library and reading room is very necessary, and every facility must be afforded to the pupil to read many general books and keep in touch with current events and forces through the newspapers. The introduction of a few periods of library

work during the regular hours of the school, the adoption of reading room work during extra-work periods, when no regular lesson is being done, are some of the devices that can be adopted with advantage. The art of public speaking and powerful expression is very essential for social leadership. The organisation of school debates and discussion groups on events of topical and social significance are calculated to serve this end. In this connection, it must be noted that complete freedom of thought and expression must be encouraged in academical discussion and debates, and no limitations should be imposed on them. Subjects for debates must be within the range of the knowledge and experience of the pupils in order to ensure effective pupil participation. Discussion groups should be organised by class teachers once a week or fortnight, when the students of the class are to assemble together in order to understand the main events at home and abroad and form their own impressions about them. The teacher should first elicit the main events of the week from the students, with particular reference to the newspapers from which they are drawn, and then point out their significance and bearing on current social life. He must then initiate discussion on them. Such an activity led by an intelligent and well-informed teacher would help the pupils to a very great extent in studying current events, understanding their full significance and evaluating their effects on society. The teacher may then proceed to direct them to study journals or books, which may help the pupils to make a more detailed investigation in this respect. Lectures and talks by eminent outsiders and specialists in particular fields of knowledge, arranged periodically in the school assembly would be a very useful activity. A happy culmination of all these activities would be the preparation of a few issues of a School Magazine during the year, manuscript or printed, which would reflect the mental content and outlook of the pupils of the school, exhibit their original talents in creative self-expression and stabilize their ideas in a concrete form.

Side by side with the development of the intellectual aspect of training in good citizenship, the feelings and emotions of the pupils should be directed in proper and useful channels. Mere intellect without emotion would lead to a dry, prosaic, and matter-of-fact life without any zest or vigour in outlook. The head and the heart must go together. So the school must create conditions, which will bring forth emotions of patriotism, fellowship and love, social responsibility and loyalty to the group. The school assembly and prayer at the beginning of the day, organised on effective and non-communal lines, would provide the necessary incentive for group loyalty. In our country, where communal ideas dominate over national interests, it is better to have prayers, which are calculated to rouse feelings of loyalty and service to the motherland. Songs and hymns which praise the beauty and grandeur of the mother country may be adopted and the ideas that the country is our God and that service to the country is service to God should find emphasis in them. The introduction of the school motto, the school flag or uniform and the school promise, which are carefully devised in order to include ideals of student life and service to society, are effective instruments for creating the necessary feelings of group loyalty and social service among the students. Even while organising and training the pupils in histrionic activities, this aim should be kept in view and pupils must be encouraged to sing and recite patriotic songs and enact plays which instil noble and patriotic feelings in them.

It is not enough, if the intellectual and emotional attainments of the pupil are directed towards social ends. Training for citizenship involves a preliminary training in the organisation and administration of social institutions. Mere intellect and emotion without the necessary drive and experience for suitable action would be useless. The introduction of a carefully planned system of pupil self-government is very essential in school life. The formation of a Students' Representative Council based on the principle of election by the students

will help the headmaster in organising all activities of school life and in the maintenance of school discipline. Every social function in the school must be managed by the pupils, and the discipline of the school maintained by the senior students of each class to a considerable extent under the ultimate supervision and control of the school staff and the headmaster. Every opportunity must be utilised in school life in order to create a strong faith among the students in democratic ideals and to train them in democratic methods and forms of action. The students may be encouraged to form and manage a Students' Co-operative Society in order to learn principles and methods of co-operation and unity. These are activities, which require very great care, guidance and control from the teachers in the early stages, until the school develops a definite democratic tradition for itself and has enough senior students on whose experience and ability faith can be placed.

A Students' Social Service League or *Sevadai* is a very important activity, which combines the intellectual, emotional and practical aspects of citizenship training. This organisation should inculcate all the principles and practices of the Scout movement with its international outlook and brotherhood and at the same time give the pupil sufficient opportunity for realising the peculiar conditions of his own native land and finding solutions for them. The League or *Sevadai* may select a "Social Welfare Centre" or "Community Centre" in a rural area near by and begin intensive social welfare work by conducting social surveys, social planning, literacy and adult night classes, adult education lectures on health, communal cleanliness and other general topics, and propaganda work during village assemblies and festivals. A certain amount of vigour and life can be infused in this constructive national work by the introduction of national songs and group dancing on the lines of the Bratachari movement. Such an activity will provide ample scope for giving expression to the patriotic feelings of the pupils and sublimating their love for the country in effective and

constructive social work. As a general programme for the whole school during the summer holidays, students must be encouraged to take literacy pledges and carry out the "Make your home literate" campaign to the best of their ability and convenience.

The picture would not be complete without a proper emphasis on the need for a well-organised course in physical education and training of the body, so that the school may maintain at least an average physical literacy, which is so very essential for a normal citizen of any country. The introduction of the 'house system' in the conduct of games and sports will provide ample scope for leadership training even on the playground.

Thus, the school must programme and remodel every one of its activities with the

ultimate object of making its pupil an effective future citizen of the country and the leader of its society. It should not, however, neglect the cultivation of a broad international outlook and a sense of world brotherhood in the pupil. The adoption of this aspect of the Scout movement, the study of international events and problems, and a carefully planned moral and religious instruction emphasising the essential divinity of man and the existence of one Supreme Creator at the background of this universe, are some of the aids to attain this end; and they should also find a place in school life. The ideal of a progressive modern school in a democracy should be based on effective citizenship, and the school will have justified its creation and existence as a powerful social factor only when it successfully strives to fulfil this aim.

HOW TO INTERPRET FACTS FROM WORLD HISTORY?

BY SRI MANTHRIPRAGADA RAMA RAO, M.A., B. ED., *Parlakimedy, Orissa*

WORLD history presents us a huge amount of subject matter. So, we have to select facts of importance and make them interesting. There is another reason for selecting facts. History is a record of how different people in different times and climes have struggled to live. Hence a correct interpretation of historical facts is necessary for us to profit by the garnered experience of ages. I have tried to select some important facts and interpret them.

1. EGYPT.

The treatment of the subject should result in conveying an impression of the antiquity of civilization. Show how geographical factors influence history by illustrating how the Nile with its abundant supply of water and fertile soil plays an important role in the fortunes of the country. Show pictures of the Pyramids and the mysterious Sphinx. Tell the boys that the Pyramids involved the labour of 60,000 men for 20 years. The pupils will

be greatly interested in those wonderful people of the remote past, who exhibited magnificent mental grasp and engineering skill in conceiving and erecting huge tombs which have withstood the ravages of time. We have to suggest their burial customs and their belief in a future life. We must draw their attention to the Egyptian Art. It must be made known that these curious people had a curious picture writing called "heiroglyphics". Mention is to be made of the divisions in their society—the nobility, the priests, the army and the artisans. A picture of their religion also is to be given. Their chief object of worship was the sun god, upon whom depended their food, wealth, and their lives. Details of their political history are not necessary as they would weary the pupils.

2. INDUS CIVILIZATION

Impress upon the students that long before the Aryans came to India there was a wonderful civilization. With the aid of pictures (Ref: Vol. 4. Encyclopaedia of

Modern Knowledge) show how beautiful was the town-planning with its baths, parks, wells and drains. Give a vivid picture of the life of the people of those days, their trade, their picture-writing, the adoption of cotton garments two or three thousand years before the Westerners knew how to use cotton. We can mention another point which will be of special interest to boys, viz.; the number and variety of toys found which implies a great love of children and a great display of humanity. We have to tell them that there were no tales or lists of kings. The excellent administration of their towns suggests the existence of a good legal system. The finest structures, parks, baths—all show that great care was taken of the convenience and welfare of the citizens. From this we can make them infer that a republican form of government was prevalent, which implies an advanced stage in the art of government. We have to bring their attention to another wonderful fact, viz.; the significant absence of remains of weapons of offence or defence, which appear almost invariably among the then existing civilizations of Assyria, Egypt and Sumeria. Here was a society which could be truly called happy since it was free from fear of violence and war. This fact will suggest to the boys—our future citizens—a significant ideal and might make them think (later in their lives) of getting rid of the pernicious wars of which they have enough of bitter experience. At least they will know that a society of the earliest times could keep war, the scourge of mankind, an unknown thing and that it would be possible for us to do likewise if only we would.

3. THE GREEKS

We must not burden the memory of the boys with many details of wars. A detailed account of the political rivalries of the various city-states would lead them to believe that Greek history was one of warring states. They will not be able to feel the unity of Greek life. Similarly, changes in constitutional history will not interest boys. On the other hand, they will be interested in an account of the

Athenian life and manners. We must let them know well how the Greeks built up their national unity. This will be of significance for our students, because as future citizens they will be faced with the problem of securing the unity of our own country. In giving a picture of the ancient Greek life, we must emphasize the Greek spirit of independence, their courage, their exuberant and irrepressible delight in life, their love of beauty, their festivals, shrines, houses and dress. Their social life also must be stressed—the composition of their society, their slaves, their women, their public assemblies, theatres and sports. The pupils have to be told about their artists, scientists and thinkers. Pictures of their art and architecture, their gods, temples and their great men must be shown.

4. THE ROMANS

As in the case of the history of all early civilizations, we need not place much stress on the political history. We may give a short description of the wars with Hannibal. Then it is enough if we mention a few emperors like Augustus, Nero, Marcus Aurelius, and Constantine. We must show clearly that the Romans had a great spirit of conquest and at the same time an abundant capacity for organisation, for law and government. Say how the Roman mothers taught their children to be good citizens. For that purpose training was given in self-control and self-sacrifice. Draw the attention of the boys to the great public works done by the Romans *e.g.*, a network of roads, baths, bridges etc. Show them pictures of the Forum, the Coliseum, the costume, the habitats of the Roman rich and poor classes. Thus we must vividly reveal to the boys the life lived by the Romans. We must not fail to show up the divisions of the Roman society into classes, their class jealousies, how the plebians and the slaves were cruelly treated, the gladiatorial contests, the Roman conquests and the form of their government. What is of more importance is to explain the cause of decline and downfall of such a mighty empire. This will show how power corrupts and how even the strongest empires fall

when they fail to win the love of the ruled. Thus it will be of topical interest, and such a treatment will lend special significance in the light of the deeds or misdeeds of some present-day empires.

5. THE AMERICAN WAR OF INDEPENDENCE AND THE BIRTH OF THE U.S.A.

We must make it plain that the American War of Independence was fought not merely because the Americans were oppressed, but mainly because there was a conflict between two fundamentally different theories of government. They could not allow themselves to be taxed by a government in which they had no representation whatsoever. For all practical purposes it was something like an alien government riding roughshod over them. Could Englishmen, who had long been accustomed to a large measure of self-government, who had wrested liberty after a stormy conflict with the Stuarts, who had painfully chosen to leave their motherland that they might live in freedom, allow a government sitting thousands of miles away and in which they were not represented, to decide matters according to the inhuman designs of imperialism and selfishness? It was this urge to defend their freedom, the very breath of their life, that spurred the Americans to a war.

Having won their freedom, they were faced with the difficulties of government. Before then they had very little experience in government. But they did not give up their idea of securing freedom on that account. They were confident that they would ultimately be able to govern themselves well through experience in course of time. This fact is of significance to us, because some argue that India should not be given freedom right now because she is little experienced in government. Here it must be made clear that the lack of good experience would not be a great obstacle. Did the Americans have any great experience in government before they became independent? Did they

not succeed in establishing a good govern-

ment? Why should it be apprehended that it would be particularly difficult for India? A second difficulty the Americans had to face was that each state was jealous of its own freedom and did not like to surrender power to a central government. Here the teacher must not fail to show the similarity of those American problems and the problems India has to face at present. We must learn and profit by the experience of the Americans, for sooner or later we in India have to come under some sort of federation comprising the provinces and the States. Again it must be clearly impressed that the history of the U.S.A. is of great significance and inspiration to us in India. It is mischievously pointed out that India is a vast subcontinent, wherein are the most diverse races, religions, languages and customs. Hence they say there can be no unity, and so we should not be given freedom. Let it be clearly known that the U.S.A. is not composed of any one race, language, faith, or cultural heritage. It is a group of thirty people of diverse religious, historical and cultural backgrounds. There are men of the Catholic, the Puritan and other religious denominations. There are the descendants of the English, the French, the Spanish, the Germans and many more. Did not all of them unite in spite of this great diversity? How could this unity come about? Because they all treated the U.S.A. as their dear country and united in the name of their freedom and economic development. Need one be branded as an incurable optimist, if he believes that, as in the case of the U.S.A., unity is possible in INDIA too in spite of the seeming diversity.

6. THE FRENCH REVOLUTION.

We must show that the French Revolution was the result of inequality and oppression and the consequent (and natural) burning desire for liberty which is man's birthright. The burden of taxation fell on the poorer classes, while the nobility were happily exempt from taxation. The lives of the nobility and the king were steeped in luxury and pomp. The land was left uncultivated. There was no one to look to

the nearest human needs of the people. This naturally produced in the people an aversion for the Grad Monarchy and the pernicious nobility.

There was another fundamental difference of attitude. King Louis XIV of France declared that he was the State. He and his successors ruled despotically. This kind of idea of government is, to put it in modern phraseology, akin to Fascism. It is to be clearly pointed out that such irresponsible rule made the kings forfeit the goodwill of their subjects. That was why the people lost their trust in the kings, and also their friendship and respect. Inspired by Rousseau's *Social Contract* the people demanded that the government be based on the consent of those who are governed. They wanted to have an effective say in the government. Thus they

unequivocally condemned autocracy and declared their faith in democracy. They clamoured for liberty, equality, and fraternity. Be it noted that it was thus a clash of the old and the new orders. That motto of the French Revolution has ever since remained the ideal of the people in all parts of the world. Ever since, the masses have come into importance. When the Great Monarch, Louis XIV, moved off the stage, he spoke words of advice to his successor, perhaps repentantly, which are of vast significance for all time to come. His message was: "Do not imitate me—in my too great expenditure. Take counsel on all questions—Relieve your people as speedily as possible." It is in such things as this that history reveals its meaning.

(To be continued).

VIJAYANAGARA: HAZARA RAMASWAMI TEMPLE

By SRI R. B. PINGLAY, B.A., Bangalore

THE site of Vijayanagara, the City of Victory, is a vast one teeming with ancient monuments and temples covering about nine square miles, while the fortifications and outposts of the city include a larger area. The city had nine gates and walls and within the last of the enclosures is the palace and its surroundings enclosed again by another stone wall. Just outside the palace wall, but in close vicinity within the palace area stands a Hindu temple, a remarkable monument. This was perhaps the temple belonging to the palace and intended for worship by the royal household as can be gathered from its close location to the palace and to the orchard.

This temple is not a very large one. The high outer enclosure stone wall has the entrance facing east with a handsome gateway. The *gopura* of this gateway is left unfinished for what reason, it is difficult to say. The exterior of this wall is divided into five horizontal rows, each depicting figures in relief with neat execution, the marching of armies and bodyguards, the

caparisoned elephants, horses led by men with beards (from appearance they look like foreigners), the march of dancing girls in their full attire, and then the royal household and personages, and finally the royal umbrella. This naturally represents a great royal procession, either a birthday occasion or the Dasara festival, as is diligently observed by the royal household of Mysore.

Within this main enclosure are two shrines for the god and the goddess, facing the east. The temple is dedicated to Sri Rama. It has a lofty imposing porch in the front, then a central hall (*navaranga*), of a very fine finish, the roof supported by four beautiful and highly polished basalt square pillars, very richly carved with fine and pointed execution by the genius sculptor who is unknown, and crowned with brackets capitals. The flat surface is with bas relief with deities both Saivite and Vaishnavite. An interesting relief is that of Kalki-avatar, Lord Vishnu seated riding on the horse with a drawn sword, implying the

protection of the righteous and the destruction of the wicked.

The north and south sides of this square hall open out in two side porches with steps leading to the paved courtyard surrounding the temples. The west side of the hall leads to the shrine chamber, now without any image, but once enshrining the idol of Sri Rama. The section of the temple base is in the form of a cross. On the right exterior side wall of the temple is an inscription and an inscription slab for a study of this monument.

The exterior side walls of this shrine and those of the goddess shrine are bountifully sculptured with has relief figures and scenes illustrating the *Ramayana*. One can faithfully read the *Ramayana* through these profuse carvings, while circumambulating the shrines. Hence this temple is known as Hazara Ramaswami (one thousand Ramas). The *devi* shrine is more neatly executed with scenes from the same epic. Both the shrines have their frieze and caves beautifully finished like those of the famous Vitthala temple at Hampi.

Among the various scenes represented on the walls of the shrines are King Dasaratha distributing nectar to his wives, Viswamitra in Dasaratha's court, the killing of Tataka, Parasurama's discomfiture at the hands of Rama, the golden deer luring Sita, the killing of Maricha, the Ravana-Jatayu

fight, the killing of Vali, Rama in council with his brother and Hanuman, Sita handing *chudaman* to Hanuman in the *Asokavan*, Anjaneya in Ravana's *darbar*, the last day of Kumbakarna, the Rama-Ravana fight and hosts of others. Also there are figures of Buddha, and of the crawling Krishna. One notable representation is that of Sri Krishna with eight hands playing flute, surrounded by cows and *gopis*.

The *Kalyana-mantap* is adjacent to the temple. Its interior walls are fully carved with figures depicting, as usual, scenes from the *Ramayana*. One interesting scene is the crossing of the Ganges with Guha in the boat. Whether the sculptor has followed Valmiki or any other recension of the *Ramayana* would be a valuable study.

The whole shrine up to the cornice is built of stone and the tower over the inner shrine chamber is constructed in brick and mortar, ornamented with figures and designs. So profuse are the carvings that one is apt to forget the time spent over a general survey of this monument. Apart from the effects of vandalism, the temple still breathes divinity. Every stone tells something. One need not despair for want of the divine idol. One feels sure that one could gain the grace of Sri Rama, if one devoutly prays even at the empty space in the inner shrine.

A PLEA FOR BENGAL-WIDE INTELLIGENCE TESTS

BY SRI JATINDRA MOHAN CHOUDARY, B. T., M. R. A. S.

INTELLIGENCE tests have been of recent origin and development. The sociological aspect of education demands them. Measurement of intelligence of school-going folk has been of practical and useful application in the countries of the west. The Binet-Simon tests have been of proved merit. They have been introduced in modified forms into Indian schools. Chronological Age and Mental Age are now

very common things. Intelligence Quotient, Educational Quotient, Accomplishment Rates are rather technical terms—all of which point to the conclusion that "society requires the use of hewers of wood and drawers of water no less than that of the brightest gems."

These tests help the head teacher of an institution in sifting as in a sieve the bright from the dullard. The average boy

or girl should be his or her chief concern, the bright, if failing in any particular school-subject may be left to be segregated in what is called an "opportunity class." A child on the other hand, may be dull in comparison with others, but may score better marks, because he is industrious. Besides, social and physiological conditions help or retard the development of children. Race, blood and environment play an important part in the gift of native intelligence or acquired habits. Recruits from backward or less advanced communities and from poor people who can hardly bear to meet mere school fees—derive generally little benefit of a good home-library or literate society. Those who are physically weak or constantly ailing have less chances of showing their mettle in a competitive test. Conditions in India, therefore, should require a gradation or classification in standards of measurement.

In offering a humble scheme for Bengal-wide intelligence-testing of secondary school children—I have to adduce a few reasons. First, post-war reconstruction should aim, as far as possible, at imparting education, more technical than general—leaving no loop-hole for any fund of conserved human energy to escape. The present war-emergency has called upon the youth of the country to go in for service—rather in a hurry. Arrangements should now be made for regularising this by school tests and post-school tests.

Secondly, no adequate measuring of intelligence of Bengal's school-going children has yet been on plan. Long ago, during the directorate of Mr. Stark—there was a feeble attempt made with very little response from teachers. Mr. Michael West of the Dacca Training College recorded results of a town-wide measurement made by teachers in training several years back. Mention may here be made of the Bombay-Karnatak revision carried on with credit by Mr. V.V. Kamat of the Secondary Training College, Belgaum. I quote below a few pertinent lines from him—

LI—35

"These mental tests to be of any great value must be rendered into the languages of the different provinces of India. But the multiplicity of these languages in India need not be any great hindrance in the way of the development of tests, because each region covered by the major languages of India will be as large as a country in Europe." The grant of Provincial Autonomy has, by this time, roused our national consciousness to a length likely to implement the above remarks. Now it is time each province did its part in conducting school tests on the lines suggested in this short paper.

Thirdly, as most schools in Bengal are under-staffed, it has not been possible so long to do any material good to mentally defective children. The Jhargram experiment under the aegis of the Government is a new venture indeed, but any comment upon it will be premature. That is why we should make the best of what is possible to be done by aided and un-aided schools. Helpful suggestions may be invited from the University of Calcutta and other Indian Universities.

An Intelligence Test Week may be declared by the Director of Public Instruction, Bengal, conveniently in the month of April. Each Divisional Inspector may issue a circular to that effect. There should be in each division an Executive Committee for the holding of tests with the Divisional Inspector as President. Unless he takes the initiative, little voluntary effort is likely to be forthcoming. The Executive Committee may be formed both by election and nomination. The Vice-President will go by election by School Councils in the Division. The General Secretary and the Treasurer are to be nominated by the Divisional Inspector. Districts should be grouped upon a zonal basis, size, school population and contiguity being determinants of a zone. A few teacher-members, one from each zone, may be elected by respective school councils for enlistment in the Executive Committee. A few District Inspectors, one from each zone, may get into the Committee upon nomination by the Divisional Inspector. Election may be

made by correspondence upon initiative of the D. T. A's. Pressure in the form of suggestions may come down from the Inspector.

A post-Test Research Committee may be previously announced by the President. The results and findings of research work may be published by the Education Department in due course.

PUPILS UNDERGOING TEST:

Classes III+IV—one group,

" V+VI— " "

" VII+VIII— " "

" IX+X— " "

Four sets of questions may be framed for urban areas and four, for rural areas. There should be two distinct standards. Questions in asterisks may do for girls. Alternate days may be fixed up for urban and rural areas. Date and time are to be fixed upon circulars. A week's holiday should be observed for the purpose. English, Bengali, Mathematics and General Knowledge should make up the list of subject.

As regards the conducting of tests, school children will have no trouble to travel. Answer papers may be sent to the District Inspector of each zone and he, after collection and adjustment of papers, may send

them to examiners. This will save double postal expenses.

The list of paper-setters and examiners in each division is to be prepared in a sitting of the Executive Committee under the direct guidance and supervision of the President.

As to financing of the scheme—methods may be formulated by the Executive. A general observation, however, may not be out of place. Contributions from H. E. and M. E. schools may be demanded at the rate of Rs. 2 per H. E. and Re. 1 per M. E. school. The rest should devolve upon the Provincial Exchequer. The cost will consist of the following items.

(a) Printing of Question papers. (b) Postage for distribution of Question papers and instructions. (c) Postage for despatch of Examination papers. (d) Travelling expenses for the meetings of the Executive. (e) Cost of printing of Research results. (f) Cost of paper, a tough problem to-day. (g) Cost to be borne, if approved by the Executive Committee, for emoluments to examiners. (h) Miscellaneous; under this head should be included all spectacular arrangements for demonstrations and public speeches by distinguished educationists—upon an All-Bengal scale.—*The Teachers' Journal, Bengal.*

FREE AND COMPULSORY PRIMARY EDUCATION IN TRAVANCORE

By SRI S. R. VENKATRAMAN, *Servants of India Society, Madras*

EDUCATIONISTS everywhere will be happy to know of the steps taken by the Government of His Highness the Maharajah of Travancore to introduce free and compulsory education throughout the state in a period of ten years as a result of the recommendations made by the Education Re-Organization Committee with the approval of the two houses of the legislature of Travancore.

It is agreed on all hands that an ignorant and illiterate nation can never make any

solid progress and must naturally lag behind other nations in the race of life. As early as 1903, the late Mr. Gokhale began to wage a battle royal with the Government of India for the introduction of free and compulsory education in the country. He said: "The longer this work is delayed, the more insuperable will be our difficulties in gaining for ourselves a recognised position among the nations of the world." Since then, various attempts have been made in British India and Indian States to introduce

free and compulsory education. But they have been half-hearted and confined to a few areas where local bodies were willing to take up the responsibility.

But local bodies, such as District Boards, Municipalities and Panchayats, owing to lack of funds, are not able to give effect to this scheme in their areas. Aided institutions, which are in receipt of government grant, are not functioning properly, and in many cases the managements of private institutions do not pay their teachers even the Government grant given to them. The results have been inefficient, uneconomic schools and waste of public funds. The report of the Re-organisation Committee of the Travancore Government contains an account of the unsatisfactory conditions of privately managed institutions in the state. In order to improve them, the Committee recommended that 75 per cent of the teachers' salaries should be paid as grant in aid by the state to private managements. When the two houses of legislature considered this proposal, they accepted by a large majority the amendment of a member in the lower house that the state should pay the entire salary of the teacher and take over primary education under its control, making it free and compulsory. This resolution was passed by both the houses of the legislature. What the Travancore Government have done to implement the resolution of the two houses of legislature is not only just and imperative but is long over-due.

It is of interest to know that teachers employed by Catholic missions and other private bodies gathered in large numbers and urged the members of the legislature to request the state to take over the entire Primary Education in the state under its control so that they might get their all too meagre salary at least regularly and in full every month.

In our view, the Government of Travancore have done the right thing in giving effect to the wishes of the legislature. In a Gazette Extraordinary issued by the Government of His Highness the Maharaja of

Travancore the policy of the Government is clearly stated. It is to the following effect.

(1) The Travancore Government have come to the conclusion that the responsibility of imparting education throughout the State devolves upon and is to be shouldered by them, and they have accordingly decided to assume control and management of Primary Education with the definite object of making such education both free and compulsory within as short a period as practicable.

(2) They have instructed the Director of Public Instruction to formulate detailed proposals on the basis of a ten-year programme for implementing the decision.

(3) Private agencies, now conducting primary schools in buildings and premises belonging to them will not be called upon to surrender those buildings and premises to the Government.

(4) Government will not take any steps towards the closure of such schools, so long as they conform to the general standard of Primary Education and the general curriculum that will be formulated by the Government.

(5) The policy of the Government will be to build primary schools on the basis of type design.

(6) If the managements so desire, and if they are prepared voluntarily to hand over all their buildings and premises to the Government, the Government will be willing to acquire them.

(7) Government generally will not be anxious to acquire buildings, even if voluntarily offered.

(8) Where Primary Schools have come into existence as the result of philanthropic effort on the part of the local public, the Government will exercise their power under the law for the purposes of utilising the premises vested in the existing managements, are trustees for the public.

(9) Government are not anxious to dispossess or interfere with the management

by private agencies of Primary Schools, whether those agencies are communal, local or religious in character. It is open to organisations interested in promoting particular religious, social or educational programmes to run their own schools with such objectives.

(10) Government retain the fullest discretion to give such encouragement and support to any pioneering educational enterprises, as may give useful instruction, supplementary to the government curriculum.

(11) Government, in consonance with their declared policy of religious neutrality, will not give any grant to Primary Schools, run specially or primarily for the purpose of imparting specific types of religious instruction.

A careful reading of the Government communique will convince anyone that there is absolutely no basis for the controversy that is now raging about the Travancore Government's action. Hindus, Muslims and non-Catholic Christian communities have welcomed the move of the Travancore Government as being in the best interests of the State. There is no question of expropriation of buildings or schools run by private managements. There is no curtailment of the freedom of various denominations, running their own denominational schools at their own expense. These two guarantees must be enough to satisfy any one who says that the State is out to victimise in particular a section of the private agencies. The controversy about the alleged curtailment of the liberties of the Catholic Christian to teach their religion to their boys during school hours or as a part of the school-work is based mostly on sentiment and is a figment of the imagination.

According to the Travancore Government's policy, in future, in no public or private schools recognised by the State or run by the State will there be religious instruction imparted to pupils belonging to various denominations. In a country like India, and a State like Travancore, where

people belonging to diverse castes, communities and creeds live together, the State cannot be a party to the imparting of religious instruction in the various religious faiths professed by the pupils in their public schools. It is entirely a matter for the followers of each faith to make such arrangements, as they deem fit outside school hours or in their places of worship, without depending, for any financial help, on the State. Besides, if the State is to take interest in religious education in a country like India, it will lead to disastrous results of very grave consequence. As a corollary to the policy of religious neutrality professed by the State, it should not allow in the interests of both the State and the citizen any one particular community alone to continue its religious instruction in schools run by them, because their religion gives them that right. But a State like Travancore or a country like India would be doing the greatest harm, if they recognised unknown and legally unwarranted communal and religious rights, which are one-sided and are likely to affect the rights of other religionists. In fact, the Catholic schools in Travancore have not been imparting religious instruction in their schools during school hours for the last several years. The present tendency all over the world is for Governments to control all unsocial or anti-social elements in the body politic, so that no one particular community need suffer on account of them. For instance, during the last three or four years, we have had ever so many controls such as those on cloth, food, sugar and kerosene. These control orders no doubt were irksome to blackmarketers, hoarders and monopolists. But these controls conferred the greatest benefit on the masses of the people. We do not know what the condition of the masses would have been, if these food control orders had not been strictly enforced. But there were protests all the same from the merchants and others, who wanted to exploit the misfortunes of the people to fatten themselves with ill-gotten wealth. Similarly, there may be protests galore from those who had till now practically enjoyed a

monopoly in running primary schools in the State. But every responsible citizen interested in the all-round progress of the nation cannot and will not take exception to the policy adopted by the Travancore Government in regard to free and compulsory education.

State control of primary education is highly beneficial. In the first place, the teachers will receive their full salaries every month in time. Discontent among teachers will disappear, their enthusiasm for their work will increase and the efficiency of the schools will be guaranteed. There will be proper supervision of the schools by the Inspectorate of the Education Department, resulting in the maintenance of a high

standard of education and efficiency in schools. Wastage in schools will also be minimised.

Secondly, good and attractive school buildings and playgrounds and adequate equipment will be provided by Government, where none exist.

What the Travancore Government have done to-day, we in British Indian provinces may do tomorrow. Those who have been clamouring for the introduction of free and compulsory education all over the country among the masses, will not only support the move of the Travancore Government as opportune and timely, but will also feel encouraged by the example of Travancore in demanding from their own Governments a similar educational policy.

GIRLS' EDUCATION—II

By S. P.

I ENDED my last article, published in the *Educational Review* for August 45, saying that girls should have at least a year's training in household arts. It must be a regular course with set classes and hours of work. Qualified teachers should run the classes. There should be cooking classes, washing classes, needlework classes, sewing classes, first aid and nursing classes and classes for taking care of children.

The cooking class should teach the girls to prepare all the necessary dishes such as rice, chappathis, curries, *rasam*, sweet meats, savouries and others, and not a single recipe once in a way, as is now being taught in some schools. An ordinary fire-place should be used in the class instead of an oven.

The washing class should teach how to wash cotton, silk, and woolen clothing, without washing off the print or dyes and without shrinking them. Ironing is not an easy task, especially for shirts and trousers and ladies' fashionable blouses. Nowadays when clothes are scarce, it is better for girls to wash the clothes themselves instead of giving them to the dhobies every week.

Girls ought to know fancy embroidery as well as plain sewing. They will have to brighten up their homes by embroidered curtains and cushions, and table covers.

By learning cutting out and sewing, girls will be able to save a lot of their husbands' salaries. They must learn to cut out and sew their own daily clothing, as well as under-clothing for their husbands and dress for their children. It is sheer waste of money to pay tailoring bills for all these. A rupee is being paid per blouse, when they can easily make themselves a blouse in an hour or so. Children want a number of dresses, as they get dirty very frequently. Girls could buy some more clothes with the money they save by stitching themselves. So knowledge of cutting out and stitching is a necessity.

Suppose a friend or relation has an accident, and there is no one to go and call a doctor. A girl should be able to attend to the wound and bandage it up, if she is skilled in nursing. If her own child is hurt, she could attend to it before a doctor arrives. Nursing a patient is an art by

itself. A nurse should have a lot of patience. If her husband is ill and needs a nurse, a girl skilled in nursing could nurse him herself. And by so doing, she makes her husband love her more as well as save money.

As well as these things, girls ought to be taught also how to receive and entertain visitors. Guests ought to be received in such a way as to feel themselves at home. To keep their houses clean and tidy is of course an art also. From the drawing room upto the kitchen, everything should be spot-

lessly clean and tidy. Be their house big or small, they should be neat and clean. I have seen a lot of houses where the drawing rooms showed cleanliness but where the husband's study and other places were in such a state that I wondered how they managed to live in those rooms. That should not be. Most of the gentlemen won't have the patience to keep their rooms in order. But the wife could keep it in order for him.

I have left the last and most important of arts for my next article.

THE TEACHING OF ENGLISH IN HIGH SCHOOLS AND INTERMEDIATE COLLEGES

BY SRI RAM PRASAD PANDEYA M.A., D. A. V. College, Lucknow

I PROPOSE to discuss the subject of the teaching of English in High Schools and Intermediate Colleges under four heads: the Teacher, the Taught, the Syllabus and the Future of English in our country.

The Teacher. Technical qualifications are important and necessary, but immensely more important and more urgent is the personal factor of the teacher. For any measure of successful teaching of English in our country, it is fundamentally necessary that he or she should be inspiring in outlook and stimulating in the actual method of teaching.

The teacher must have faith in English, by which I mean that he should have the conviction that English is necessary, that English is useful, that English has a great cultural value.

With growing nationalism, it is but natural that we should pay increasing attention, among other things, to our own languages and do everything we can to advance their cause. I do not think well of the person who professes an ignorance of the mother-tongue and cannot properly use it in conversation or writing. But this natural relation is not incompatible with a passion for or a devotion to a foreign language and

literature of the greatness, grandeur and value of English. Of course, I recognise that we cannot show equal devotion to two 'loves' at one and the same time. In case of such a conflict, choice has to be made. But a natural association and a 'discovered'—'acquired', if you please—love can very well go together. What I seek to emphasise is the fact that one who has taken to the teaching of English, must be characterised by a burning zeal and passion for this noble mistress. It is no use doing a thing under protest. It makes me sad sometimes to come across fellow-teachers who have given up the cause of what they have embraced, who have grown apologetic, who seem to say to the class that English is a necessary evil for sometime yet. This bankrupt beginning, so to speak, is of incalculable harm to the students; it chills, and often, kills, their eagerness and enthusiasm, and loses them to the 'trade.'

The necessary and indispensable background against which we can effectively teach English, is the living conviction that it is a great necessity everywhere, in the examination, in the office, in the inter-provincial conference, in the council, and equally, in the Congress. This conviction should be further braced and strengthened

by the recognition that English, as the greatest international language, as the world-language, has great usefulness for us. It enables us to maintain a sort of living contact with world-thought, besides binding us in one chain of similar and like ideas in our long and wide land. Lastly, it should not be denied that English is, at present, the store-house of all ancient, medieval and modern learning. The key to English is the key to all wide and deep knowledge.

This three-fold faith in English, sustained and fortified by a constant pursuit of its growing literature, will enable one to impart instruction in a stimulating manner. Every thing that one utters will acquire a peculiar value and living impressiveness. Faith will find infinite ways to put feeling and flavour into the mode of delivery.

The Taught. The average student of to-day has three distinctive features; he is younger in years than his brother of the past generation; he is more awake to things around him; but, thirdly, he has less enthusiasm for English than the student of the past generations. The first two are great assets and must be duly 'exploited.' With proper handling, he tends to make an excellent pupil. But his antipathy to the language of a people whom he has learned to suspect, presents a problem of problems to the teacher. There is a growing distaste for English, which has got to be judiciously and carefully sublimated into a healthy taste for a highly useful vehicle of culture. His greater insistence upon and attention to Hindi or Urdu is legitimate; but his dislike for and inattention to English is partly based on sentimentality and partly springs from aversion to work. We have to meet and overcome these subtle difficulties with the greatest tact and patience. The growing size of the class makes the situation more uncomfortable. There is perhaps no sufficient appreciation of these new problems of the English teacher among officers and other classes of people. The nature of his present task certainly demands better amenities than he actually enjoys in our schools and colleges.

The Syllabus. I may be forgiven, if I frankly state my conviction that the present syllabus in English, both for the High School and the Intermediate examinations, does not seem to have been very carefully drawn up. I disagree on the usefulness of the English fourth paper. Its presence has been making passes cheap and lowering the standard of written or spoken English in the case of the High School student. Indeed, I have always looked upon it as a spoiler of English and am glad it will not figure in and from the examination of 1947.

But only two papers will be too few. I strongly think that the High School candidate should be given three papers, one of which should be purely on 'unseens', 'grammar', and 'idioms'. The presence of grammatical questions in the text-paper is a relic of the unscientific past.

As regards the nature of the text books, I am again in disagreement. The prose-course of the High School standard is primarily intended to teach English, which is not effectively done by prescribing patch-work readers that the selections are. Types of prose are excellent for acquaintance, but bad for useful friendship. The student could better learn to use it, if he were to read two or three whole books of two or three authors. There is no dearth of suitable books. Names spring in the mind unbidden. The 'sample' and 'type' tendency may be pursued in the case of poetry, which is more a pleasure than a practice-study.

In the Intermediate course, too, I could not approve more than one book of prose selections. The others may more profitably be single authors.

To prescribe a poem like *Sohrab and Rustum* for serious study seems to me to be a case of misplaced trust. Surely, there are more inspiring poems and poets. Again, *The Merchant of Venice* could better be a book of detailed study, its place, as a book of non-detailed study, being taken by a modern play, as one of Galsworthy.

To include 'unseen' passages in the first two papers of English does not seem to me

to be a good idea. It tends to belittle the 'unseen' and thus general knowledge. One who is given the Intermediate certificate must first satisfy us that he can understandably deal with standard passages of English. This can best be done by having a separate 'unseen' paper, which means that we may have four papers in English. When Hindi, Sanskrit, and Mathematics have three papers each, four should not sound too many for English.

Perhaps I am starting too many hares; but I trust they will pay, if you pursue them.

The Future of English. The foregoing part of this discourse will provide an easy answer to this question. English has ceased to be the medium of instruction in and upto the High School stage. As medium in the Intermediate stage, it cannot have a long lease. You cannot hope to educate the teeming millions through a foreign tongue. Hindi and Urdu will have soon to be adopted in all the stages.

But I cannot think of a time when we shall have nothing to do with English. Indeed, that will be an evil day and will perhaps never come. In the interest of national solidarity, in the interest of world peace, if not for the value of its culture, English should be retained as a compulsory study upto the degree course. We require an All-India language as well as one which will enable us to maintain contact with the outside world. Who will deny that English satisfies both these requirements?

With the Bahaists, I believe that we should cultivate and promote a common language for the whole world, for that, with other things, makes for world peace. From this consideration, too, I strongly advocate the cause of English. It is best fitted to be the language of international intercourse and communication. I have full faith that the peaceful genius of our nation will accept this great measure of peace.

DRAMA AND THE SCHOOL

A SURVEY of the activities in the school which have a bearing upon play production brings under notice:—

Mime, Puppetry, Verse and Choral Speaking, Dramatization of Ballads, Story Poems and episodes from prose stories, play reading, class acting of scenes and of one-act plays.

These, generally, comprise activities which may be considered as preparation for the final objective of public or semi-public production.

The rhythm, music and movement, games, dances and pageantry of infant classes are fundamental to the developments expected in the primary and the secondary school.

While public performances by infants are governed by the age of the children, it is desirable that parents and those having a direct interest in the school should be given

the opportunity during the year to witness the cultural activities of pupils when they have reached a normal and artistic finish.

The importance of the public production of plays has been well stated by Ernest Dyer in "Producing School Plays."

"When a play is staged, a new work of art is born. *Acting* is but one element in it, *speech* another; *lighting*, *scene*, *movement*—all make their various appeals to the mind of the spectator. The play is the sum of these appeals."

It seems desirable to comment upon at least some of the activities which are considered a preparation for play production. It will not be correct, however, to infer that they are not also of great importance in their own right.

Verse Speaking is what the name implies—the speaking of verse and poetry by individuals and groups. Such work

can have an important influence upon the player's speech.

Old time elocution with its artificial delivery and its melodramatic gesture may now be considered a memory. In Verse Speaking, the purpose is to speak clearly and naturally, with feeling for the thought and mood of the poem and respect for its language.

Time is not well spent on verse which lacks good quality—in its rhythms, its feeling or thought content, its language. The whole matter of selection is one for careful judgment. A discussion of the technique of Verse and Choral Speaking is beyond the limits of this comment. The names of helpful books of reference are listed below. The following points may prove suggestive:

An obstacle to the activity of a Verse Choir in the small school is found in the different levels of maturity and the varied pitch and timbre of the pupils' voices. It is generally found, however, that voices can be grouped to speak poems which lend themselves to such grouping. "The Forsaken Merman" is an example of a poem in which the treble of the younger pupils and the deeper tones of others can find suitable parts. Such ballads as "The Wee Cooper of Fife" and others with narrative and a refrain or chorus will also be found to lend themselves to small school grouping. Masefield's "Cargoes" is cited because of the different effect sought in each of the three stanzas, and especially the contrast of the third to stanzas one and two.

It should be remembered that simultaneous recitation is not Verse Speaking. To blend voices into a near unity of one; to achieve exact timing with words and rhythm, and to have pupils modulate expression smoothly and with seeming naturalness is a choice and difficult achievement. Yet the result is so artistically valid as to repay all the studied treatment required both from teacher and pupils.

Senior pupils whose voices are fixed provide opportunity for attractive choral speaking in which voices are placed in two

or three groups and used both in solo (as a group) and in chorus. For such work the poems of Milton and Tennyson come readily to mind as offering rich material, but there is scarcely a major poet from whom tribute cannot be exacted. Probably the richest storehouse for choral speaking is the Bible. . . .

Play Reading deserves the status of a regular weekly activity for both Primary and Secondary classes. A wide experience of plays is indispensable, if class performances, as they should, are to grow out of class interest and knowledge; if the pupil is to develop a worthwhile standard of judgment of the merits of plays; and above all other values probably, if the larger purpose is to be achieved of acquainting the pupil or student with plays (and many of them) appropriate to his stage of development.

Plays should be well chosen. They need not, should not, be limited to those which pupils can act. Interest and success may depend at times upon the teacher's motivation of the reading. Each reader should have a copy. All should be comfortably placed for the play-reading period. Pupils cannot be left alone to sustain their own interest; they can be trained, however, to assist greatly in choosing and discussing plays. . . .

The following are suggested material for two activities. The list is merely *suggestive* and is intended mainly for secondary pupils; certain subjects will be found to suit advanced primary groups:

1. *Verse and Choral Speaking.*

Chesterton: Selections from "Lepanto."

Kipling: "Recessional," "Ballad of East and West". . . .

Tennyson: "The Bugle Song," "Crossing the Bar," "Passing of Arthur."

Byron: "Sennacherib," "She Walks in Beauty," "Eve of Waterloo," "The Isles of Greece."

Keats: "La Belle Dame," "Chapman's Homer."

Coleridge: "Kubla Khan."
 Scott: "Rosabelle."
 Macaulay: "Horatius."
 Yeats: "The Land of Heart's Desire"—selections.
 Wordsworth: "Solitary Reaper," "Milton," "Upon Westminster Bridge."
 Arnold: "Sohrab and Rustum"—selections, "Forsaken Merman."
 St. Paul: "Charity"...
 Flecker: "Old Ships," "Samarkand."
 2. *Glove Puppetry for Girls.*
 Many of the Shakespearson scenes suggested below could be presented effectively with glove puppets.

3. *Scenes from Shakespeare.*
 Macbeth and the Witches.
 Henry Vth before Harfleur.
 Trinculo-Stephano scenes from "The Tempest."
 Quarrel scene; Murder of Caesar; Antony's oration—from "Jullus Caesar."
 Any of the Clown Scenes, "Pyramus and Thisbe," from "Midsummer Night's Dream."
 Trial Scene from "Merchant of Venice."
 —*The Education Gazette, New South Wales.*

A SYLLABUS FOR ADULT EDUCATION CENTRES

BY SRI ANATHNATH BASU, M.A., Calcutta

1. The following syllabus has been prepared keeping in view Gandhiji's idea of adult education through creative and recreative manual activity including crafts.

Our aim is to give the adult learner an education which will make him (i) a better craftsman and (ii) a more effective member of society and (iii) help him to use whatever little leisure he has, with profit and enjoyment. Through such education the adult student must learn to participate more fully and intelligently in the life around him.

For the adult learner, there are three major centres of interest: (i) vocational, (ii) social and (iii) recreational. In his education, therefore, all these three interests must be integrated and correlated to one another. The starting point of such education will be the individual, rich in his experience of these three aspects of his life. His normal daily activities will provide the materials of his instruction.

2. The method of approach and instruction has a special importance for the adult learners. Adult education is essentially an individual affair. Here, as elsewhere, personal contact with the students is not

only important but essential. Such contact should be intimate; and it should extend over a sufficiently long period of time in order to leave permanent impress on the personality of the students. The seminar and discussion method is therefore the best. Lectures may serve only to create a general interest.

3. The syllabus is spread over three years,—the minimum period an adult learner should be in touch with a centre. He is expected to attend four days in the week and for four months in the year. On each working day, the session will extend over a period of 90 minutes at least. For outdoor games, where these could be organised, extra time will have to be provided.

4. Naturally, education will be closely related to the adult student's usual manual activity and his individual and social life. In addition, he may choose a subsidiary manual activity either for vocational or recreational purposes.

In actual instruction, such subjects as concern the learner more directly and to a greater extent than others will be taken up

first and they will serve as the basis for further correlation.

5. The following will be the subjects and activities taught:—

- I. Manual activity, main and/or subsidiary;
- II. Personal and Community Hygiene, including First Aid and Home Nursing.
- III. Social studies, Civics and General Knowledge.
- IV. Introduction to Science.
- V. Music, recitation and dramatics.
- VI. Games.
- VII. Mother-tongue.
- VIII. Mathematics.

In the above list, Personal and Community Hygiene might have been well included under Social Studies; but in view of its special importance it has been treated as a separate subject and its scope has been widened to include First Aid and Home Nursing.

A good deal of emphasis will have to be laid on item No. V (Music, etc.). These activities will not only provide the element of joy, but they may also serve as the starting point for other educational activities.

Formal work in literacy and Arithmetic should be started, preferably in the second half of the first year, after the adult learners have found interest in their work.

In the following syllabus there has been no attempt to indicate the sequence of topics in different subjects. For, excepting in language work and Arithmetic, such order is not essential.

With regard to these two subjects the proper sequence of topics will be indicated.

5. The objectives of the different subjects are indicated below:

I. Manual Activity, main and subsidiary.

Except in ideal circumstances there will be very little opportunity in the adult education centre to practise the craft of the

student fully or in all its bearings. For example, practical agriculture cannot be fully undertaken in the centre, but there are other subsidiary activities which may be undertaken. These may be practised for their vocational advantages. (They may have recreational advantages too.) The main objective is that these activities will help the student to improve the quality of his vocational work. Making of compost, selection of seeds are activities subsidiary to agriculture. There may be small-scale demonstration of these activities in the centre. Spinning may be regarded as a supplementary activity; but none of these will ordinarily come under recreational activities. Use of colours for drawing designs, however, has both vocational and recreational advantages for a weaver. These illustrations will indicate clearly the position of crafts, i.e., manual activity, in the scheme of adult education.

II. Personal and Community Hygiene:

1. To develop a sense of cleanliness of the body, the home and the village.
2. To teach how to render first aid and use simple remedies for common ailments, and protect oneself.
3. To develop an understanding of purity of conduct as a preservative of health.

If, as a result of studying this subject, the standard of conditions in the family and in the village does not improve, the course will be deemed to have failed in its objective.

III. Social Studies:

1. To develop a sense of citizenship and a broad human interest in the progress of mankind in general and of India in particular.
2. To develop a proper understanding of one's social and physical environment and to awaken the urge to improve it.
3. To develop those individual social virtues which make a man a reliable associate and a trusted neighbour.
4. To develop mental respect for all religions.

IV. *Introduction to Science:*

1. To arouse interest in and curiosity about laws of nature as affecting human life in different ways.

2. To foster an intelligent interest in science in general, specially in that aspect of it which affects the daily life of the students.

The introduction to science should be made primarily with the help of those illustrations of scientific principles which affect the daily life of the student. The romantic aspect of science may also be exploited occasionally. The study of science should give the student some insight into laws of nature. He should be made to understand how science has influenced and transformed modern life.

V and VI. *Music, games and dramatics:*

1. To cultivate a love for beautiful music as a healthy leisure-time occupation.

2. To develop interest in dramatic literature.

3. To cultivate some hobby.

4. To develop the habit of taking regular physical exercise individually and taking part in group games collectively.

The ultimate objective will be to enliven the village life. The culture of music should not be confined to the centre only; it should go to the individual homes.

The final object is to rebuild the recreative life in villages. Group games will play an important part there. National games should be preferred to games requiring costly materials to be indented from outside.

VII. *Mother-tongue.*

1. To develop the capacity to *speak* lucidly, coherently and confidently about the objects, people and happenings of one's environment and on any given topic of every-day interest.

2. To develop the capacity to *read* silently, intelligently and with speed written passages of average difficulty. The capacity

should be developed to such an extent that the adult learner may read with understanding and enjoyment newspapers and magazines of every-day interest.

3. To develop the capacity to read aloud both clearly and expressively.

4. To develop the capacity to *write* legibly, correctly and with reasonable speed; to describe in writing in a simple and clear style every-day happenings and occurrences as well as to write personal letters and business communications of a simple kind.

VIII. *Mathematics:*

1. To teach quick methods for solving problems arising out of daily life and occupation.

2. To impart a knowledge of elementary business practice and book-keeping.

3. To impart a knowledge of the elements of mensuration and practical geometry.

Detailed Syllabus

I. The detailed syllabus in the major and subsidiary crafts cannot be given here. These details will depend on the activity chosen and also on its nature, whether it is taken as a major or subsidiary craft.

II. Personal and Community Hygiene:—

1. Health, its meaning and significance.

2. The healthy body; its organs and their normal functions

3. How diseases spread, the story of germs and bacteria; common disinfectants. Ventilation, sunlight, purification of water.

4. Certain common diseases and their prevention; inoculation, vaccination.

5. Personal cleanliness, care of teeth, nails, daily bath, food and sleep.

6. Communal cleanliness—community water supply, market conditions, latrines.

7. First Aid (Practical); use of common drugs and medicines.

8. Nursing.

III. Social Studies, Civics and General Knowledge:—

1. Study of the district: its general topography; geographical and administrative divisions. Place of importance, historical, commercial or religious markets.

A map may be used, but before it is used some idea may be given of plans, for which settlement sheets may be utilised.

2. The village administration. The old system and the new. Union Boards; Voting; District Boards.

3. How the Government administration works. The rights and duties of the individual.

N. B.—This should be taught in the concentric method, *i.e.*, from No. 2 above, we may proceed to the district, division, province and so on.

4. Story of other lands. England, China, Japan, U.S.A. & U.S.S.R., Turkey.

5. Heroes of the world of all times, including great religious reformers, scientists, explorers and statesmen.

6. Short history of the national movement in India—Hindu-Moslem unity and the problem of the Untouchables and the States.

7. The story of trade and commerce. How jute from the village reaches distant places, say, New York.

8. Study of current events through newspapers.

9. Some interesting places in India:—

(a) Places of pilgrimage, how to reach them.

(b) Calcutta, Bombay, Madras.

(c) Delhi, Agra, Madras, Amritsar.

10. Individual, family, group and state. Elementary ideas of interrelation. Responsibilities arising out of interrelation. Individual's rights and duties, family life,

its essential duties. Parenthood, its sacred obligations.

Individual as a member of group. Group loyalties.

(The items will be discussed in small groups.)

11. A beautiful home. Its plan and arrangements. Decorating a house.

12. Co-operation, its principles and practice as applied to the major craft of the learner.

IV. *Introduction to Science:—*

1. The story of great inventions.

(a) gas engine,

(b) electricity,

(c) telegraph and telephone;

(d) wireless;

(e) gramophone.

2. The story of the sky and the solar system.

3. How plants live and grow.

4. The human body and how it works.

5. (a) Animals and insects in the locality and their way of living.

(b) Care of domestic animals, their common diseases.

6. Study of soil and manures.

V. *Music, recitation and dramatics:—*

Selected national songs and bhajans for community songs such as the Ramayana. Short folk dramas, preferably composed by the students themselves.

VI. Games: Indoor and outdoor games, individual and community games.

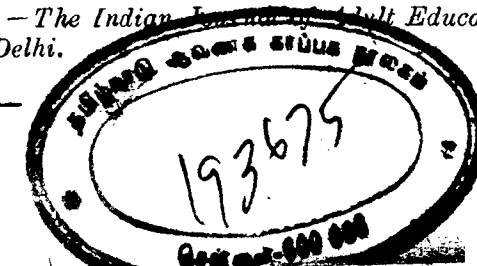
VII. *Mother-tongue:—*

No detailed syllabus is needed. Reading materials may be chosen, keeping in view the objectives defined above. Selection may be made from newspapers; great epics and popular songs and dramas for this purpose.

VIII. *Mathematics:—*

The four compound rules, family budgeting and book-keeping, price calculations.

—*The Indian Journal of Adult Education*, Delhi.



THE MAADHYAMIKAAS

By SRI M. B. NARASIMHA IYENGAR, M. SC., Advocate, Bangalore

THE *Maadhyamikaas* are the most important members of the *Mahayana* school of philosophy. Their fundamental doctrine is *Sunyata*, the doctrine of the universal void. This means that they virtually deny the existence of the external world.

Nagarjuna states thus:—'I adore the enlightened one, the foremost of the eloquent, who taught us the apparent or phenomenal existence of the universe and in whose view things are neither transient nor eternal, neither produced nor destroyed, neither same nor different, neither coming forth nor passing away, except in their apparent existence, the knowledge of which confers blessings by putting an end to all illusions. [*Maadhyamikaavritti*, 1 and 2]. Thus it means that there is no real production but only an apparent one, and that there is likewise no destruction but only an apparent one. The same thing applies to the other phenomena mentioned above. But it does not mean that *Nagarjuna* restricted his system to only eight kinds of phenomena. But it is equally applicable to others also. Thus it is clear that all the phenomena of the universe are apparent only and have no real existence.

The next question that has to be asked here is this.—'Have these phenomena a noumenon underlying them?' This question the *Maadhyamikas* have answered by assuming two kinds of truths, namely *Paramarthika* [i.e. absolute] and *Samvritthika* [i.e. illusory]. When judged by the first, the universe appears to be void. But when looked at from the second stand-point the universe appears to have been formed of innumerable objects and cognitions.

Samvritti literally means a covering. It is a covering by means of which an unreal universe appears to be real. It is also called *maya* or *avidya*.

It has been stated that the *Samvritthi* state is possible due to certain relationships. Firstly, we have the relation of cause and effect. Consider a jar. It is produced out of clay. For practical purposes, the clay has been regarded as the material cause of the jar. But when its true state is perceived, it is found that both the jar and the clay are

not real. Remove the jar. The clay will become non-existent. Remove the clay. The jar will become non-existent. Secondly there is the relation that the objects bear to their attributes. For instance, colours and forms do in here in the objects. Then there is the relation of the one preceding or succeeding another either in time or in space. Lastly, we have the relation that the parts bear to the whole. Take, for example, the threads out of which the clothes are woven.

The *Maadhyamikaas* have denied the existence of God. They have stated that no objects exist independently of their attributes. They argue that if the universe is one of the manifestations of the God, it must be treated as God Himself. This, they say, is absurd, as God cannot be the universe. Hence they conclude that no God exists.

They have also denied the existence of the *atman*. They have come to the conclusion, by following the same line of argument, that *atman* cannot be different from the series of momentary sensations, that are unreal. But in the *samvritti* state, they have accepted the *atman* to be distinct from the sensations.

What then is the true state? *Sankara* states in his *Sarva-siddhanta Sangraha* thus:—'The ultimate principle is not existent, nor non-existent, nor existent and non-existent, nor anything else which is different from both the existent and non-existent. Whatever is non-existent, that cannot be produced by any cause, cannot be produced like, for instance, the absolutely non-existent horns of the hare. If origination is admitted to be desirable in the case of what is really existent, then in fact origination produces that only which has already been produced.'

It is impossible for one and the same thing to be both an entity and a non-entity. Nor does it stand to reason to hold that one and the same thing is distinct from both reality and unreality. Therefore, it is proved that the ultimate reality is such nothingness, as is outside the scope of the four alternatives above set forth.

The *Vedantins* have criticised the *Maadhyamika* view in commenting upon the aphorisms of *Badarayana*. *Sankara* was the first *Vedantin* to attack it. He says that as the whole universe in the *paramarthic* state appears to be void, no useful purpose will be served by resorting to the paths that are unreal to attain the final salvation. What are called pleasure and pain etc., are unreal and have no firm foundation to stand upon. [*Bhashya*, 2-2-29 to 32].

The followers of *Ramanuja* have gone a step further. They have criticised the various systems of Buddhist philosophy, such as the *Sautrauntikas*, the *Vaibhaashikas*, *Yogaacharyas* and the *Maadhyamikaas*. It is only one *Buddha* that has preached his religion and out of that religion has sprung the different branches that are hostile to one another. They fight among themselves as regards the ultimate reality. Therefore no useful purpose will be served by arguing with them, who have no settled notions.

Gautama, when he composed the *Nyaya Sutra*s, has devoted four aphorisms to the *Maadhyamikas* [*Nyaya Sutra*s—chapter 4—aphorisms 37 to 40]. In aphorisms 37 and 39, he states the *Maadhyamika* views and in aphorisms 38 and 40, he refutes them. He says in the thirty-seventh aphorism thus:—'The universe is void in as much as the substances are non-existent in relation to one another.' This view is criticised in the next aphorism that runs thus:—'The universe is not void, in as much as the substances do exist in relation to themselves.' Again in the thirty-ninth aphorism, he states another view thus:—'Things are not self-created as they are only relational in their existence.' In the fortieth aphorism, he refutes this view thus:—'This theory is not sound; because then no relation can be established.'

Kapila has devoted aphorisms 43 to 47 of the first chapter of his *Samkhya-sutra*s to this doctrine of *Sunyata*. In the forty-third aphorism, he states thus:—'If the external world does not exist, then the cognition thereof cannot exist. If both do not exist, then the universe is a mere void.' This statement has been refuted in the subsequent aphorisms.

The saint, *Satagopa*, otherwise known as *Nammazhwar*, has refuted this doctrine of

Sunyata thus:—God exists, even if it is stated that He exists. God exists, even if it is stated that He does not exist. All objects that could be apprehended by the proof of perception are His body. Those that could not be apprehended by the proof of perception belong to His unmanifest states. He possesses the attributes of existence and non-existence (i.e. the manifest and the unmanifest states). He has the two states [i.e. the manifest and the unmanifest ones], yet He is indestructible (by nature). [*Tiruvaymozhi* 1-1-9].

The later *Maadhyamikaas*, *Haribhadra* and others, were taken aback at the kind of criticism levelled against them by the *Vedantins*. Then they introduced a positive entity into their system. They take the view that the word *Sunyata*, means *chit* [i.e. consciousness] or *Bodhi-chit* [i.e. the enlightened consciousness].

What then is the exact meaning of *Sunyata*? They have stated in clear terms that it is not possible for them to give an exact definition of it. But the utmost that can be done is that it can be differentiated from all objects other than itself.

In doing so, they have explained this word, *Sunyata* in the following ways:—

It is different from the eye and the other sense-organs. It is different from the forms and the colours that are seen by the eye. It is different from the objects possessed of forms etc. It is not the knowledge, namely, that it is different from all *dharma*s (i.e. the *punya karmas*). It pervades every where, as its exact measurement in space cannot be given. It has not as its meaning, *Nirvaana*; if the meaning of the word, *Nirvaana* is taken to be that state when *chit* separates itself from the five *skandas*. It is not the triple tremors [i.e. *Vata*, *Fitta*, and *Sleshma*] of the *ayurvedins*. It is not that which can neither be created nor destroyed. It is not known to have a beginning or an end. It cannot be subdivided into parts. It is not capable of doing any useful work. (Here please note that the *Buddhists* have not accepted the universe to be the product of creation.) It does not undergo any changes of state. It is not attached to any *Punya-karmas* done in the world or to the fruits thereof. But in *Sunyata* there is the reflection of the fruits of *karma* (i.e. *Karma-phala-prati-vijnapti*.)

It does not possess any attributes. It does not possess the peculiar characteristics of the five *Skandas*. It cannot be brought into conjunction with the attributes or with substances. Existence and non-existence, etc. are dependent on *Karma*; hence *Samyata* is not existent, nor non-existent, nor existent and non-existent, nor anything else which is different from both the existent and the non-existent. Its essential nature can only be apprehended by true knowledge. *Samyata* is the state of *Tathagata*, which is the state of enlightened consciousness; and it could be attained only after dash, (i.e. only after the separation from the *pancha-skandas*) [See *Abhisamayalankaraloka* of Haribhadra]. This *chit* or *Bodhichit* is called by the name of *Bodhisatva*. The word, *Bodhisatva* literally means an enlightened being; and this has given a handle to the critics. The word, *satva*, denotes a being. As such it denotes a substance that has a form. This is opposed to the very idea of *Samyata*. How then can *Bodhisatva* mean *Samyata*? But it must be known that the word, *satva* also means, that which has an existence. In the school of the later *Maadhyamikas*, the only object, that exists as an entity is the enlightened consciousness. Hence they have stated that the word *Bodhi-satva* means an enlightened consciousness (i.e. *Bodhichit*). But it does not mean an object possessed of forms and colours.

The later *Maadhyamikas* have stated that the *Buddha* is born as often as necessary in the world out of compassion to the erring people and that he has done all he could to see that men may lead a virtuous life and attain *Nirvaana*. Thus they have accepted the Hindu theory of the *avatatars*. But they have given the new name of *desanaa* to it.

The *Bodhi chit* cannot be brought in conjunction with the five *skandas*, and this is an accepted fact. Then how are men born in the world? This question may appear paradoxical; but on closer examination it becomes solvable. There are certain limiting conditions (i.e. *upadhis*) with whose help the *chit* appears to have been born in the world, and they are the five *skandas*. The *upadhis* (i.e. limiting conditions) can be explained by an illustration. Consider the white stone, known as marble, and place by its side certain red flowers. Then the white stone appears red and the redness of the flowers

will become superimposed on the stone. Similarly in this case it so happens that the attributes of the five *skandas* are superimposed on the *chit*. So that the one is mistaken for the other. As long as the limiting conditions are there, the *chit* is in bondage. But it can attain the state of *Tathagata* only when it has realised itself and when it has ceased to have any connection whatsoever with these *upadhis* (i.e. limiting adjuncts).

The *Maadhyamikas* have not accepted the *atman* in their system. They are called *Nairatmyavadins*. They interpret the word, *Nairatmya* thus. They have stated that the *chit* or the *bodhichit* have no one to control them, or they are not subservient to any other object. Perhaps this is stated in reference to the *Sarira-Sariri-bhaava* of the *Visishtadvaitins*. The *Visishtadvaitins* have held that all the objects are the body of the Lord, (a) because they are subservient to the Lord, (b) because they are dependent on Him and (c) because they are controlled Him. Now the five *skandas*, which are only limiting conditions (or *upadhis*), cannot be the body whose *atman* is *chit* or *Bodhichit*. Thirdly, *chit* or *Bodhichit* are not capable of doing useful work. Otherwise it will lead to an absurdity, namely, that the world is created out of a creator.

Nirvaana is the name given to the final release from the bondage of *Samsara*. It is the attainment of the state of *Samyata*. Panini defines it thus:—'*Nirvaana Azoatheh* [Sutras 8-2. 50]. *Nirvaana* is that state of the wick and the oil of the lamp, that is burnt out completely, when no wind blows. The earlier *Maadhyamikas* have accepted *Nirvaana* in this way. But the later *Maadhyamikas* have stated thus:—'A number of *Bodhisatvas* have attained *Nirvaana*. Each of them has maintained his individuality, and has not merged himself one in the other. It is the state similar to the flash of lightning that the *chit* experiences. In *Nirvaana* there is the experience of *Vedana* (i.e. sensations) by the *chit*.

A person has to do certain *punya-karmas* if he wants to realise *Nirvaana*.—Firstly, there is *dhyana paaramita* [i.e. transcendental charity]. The charity pertaining to religious abstraction comes under it. A person studies religion and philosophy under a

teacher. Then he thinks repeatedly of what he has studied. Then he puts them into writing or propagates them. Then there is the highest form of charity, wherein food and clothing are given as a gift to those who are in distress. Then there is the charity of extending protection to those who are in need of it.

Secondly there is *Sila Paaramita* (i.e. moral excellence).

It is divided into three sections: (a) Morality as regards exerting one's self in the interest of others; (b) Morality relating to the acquirement of the higher qualities; and (c) Morality in reference to avoiding or giving up evil thoughts or habits. Then there is *Virya Paaramita*. Hari Bhadra does not give an explanation of this. Fourthly, we have *Dyaana Paaramita*. Hari Bhadra does not give an explanation of it also. Next comes *Kshaanti Paaramita* [i.e. Self-control, patience, and forbearance] and lastly, there is *Prajna Paaramita* [i.e. knowledge relating the attainment of *Samyata*].

The *arhants* and the *Bodhi-satvas* are the best people to receive the gifts mentioned above. They are the people that have to be worshipped most.

Bodhi-satvas are not in need of a teacher to lead them through the right path, when they want to attain *Nirvaana*. But others need a teacher to guide them and to show them the right path that leads to *Nirvaana*.

The later *Maadhyamikas* have accepted a kind of *Samaadhi*, known as *Simha-Vijrmbitam*.

for the attainment of *Nirvaana*. But what it exactly is has not been stated by Hari-bhadra. Perhaps this is identical with the *yogic* meditation resorted to by the *Vedantins* for the attainment of God.

The *chit* also undergoes various transformations. It attains a state similar to earth, gold, and fire etc. and it ends with a state similar to that of clouds. Haribhadra gives twenty-two of them. Some of them, he says are the modifications of the *chit* in the world. Some others are the modifications of only the *Bodhi-satvas*. Others are applicable to the *Buddhas* only. As regards the men living in the world, *chit* may appear to have assumed various states due to certain limiting conditions. But it is hard to understand the thesis that the *chit* of the *Buddha* has a form similar to that of the river or that of the cloud.

What is the authority for all the statements made above? The *Maadhyamikas* say thus:—'The sayings of the *Buddha* at Gridra-koota and other places of his resort to his disciples must be taken to be verbal testimony on which great reliance has to be placed, and they have been recorded by his disciples, Kondanna and others.'

The *Buddha* is called by the name of *Bhagavan*. It means that he possesses the following six attributes:—*Aiswarya* (i.e. wealth), *Rupa* (i.e. form), *Yasas* (i.e. fame), *Srii* (i.e. the auspicious qualities), *Jnana* (i.e. knowledge) and *Prayatna* (i.e. attempt).

GEOMETRY TEACHING

By RAO SAHIB R. SWAMINATHA IYER, B.A., L.T., Retired Headmaster Kumbakonam.

IT is not usual to teach Geometry in any form lower than the fourth. One might infer from this that the subject is incomprehensible to pupils of undeveloped minds, and a degree of mental development ensured by the Lower Secondary curriculum is a necessary condition for the commencement of its study. It is certainly very good to omit a subject which does not directly or indirectly help the mental growth of the learner; but in what is now done in schools with regard to Geometry, there is, I am afraid, the sin of both omission and commission. An

elementary notion of the fundamental principles of the subject may, without the slightest difficulty, be imparted to the Lower Secondary pupils, if only the right method be discovered and adopted. We are too lazy to think of the method and so the subject has been dropped altogether. Again when the subject is introduced in the Fourth Form, it is handled in a very unhealthy and undesirable manner. The teacher gets his pupils to learn by heart, one and all, the definitions given at the beginning of every book of Geometry now in use,

and Heaven alone knows whether the thing committed to memory is really taken in and digested by the pupils. The pupils are then led on from one proposition to another irrespective of their importance, in the order in which they are given in their text-book. I may, by the way, state that the method adopted here is unnatural in two ways: first, the pupils fail to see the connection, if any connection exists at all, between the large body of definitions studied at the outset and the first few propositions which the pupils have actually to struggle through; secondly, the line of argument followed and the conclusions drawn at every step are too formal to appeal strongly to the true discerning power of the children even in the Fourth Form. The initiative and the retentive powers of the mind which are, luckily for the teachers of young children, at their highest at the time, are, I believe, alone brought into play, while the faculties of reason and judgment, for whose development the subject is introduced, do not in the least respond and they remain unexercised. It may perhaps be said that the faculty of reason is doubtless brought into play at least in the case of the more intelligent of the class. Even there, the exercise, I fear, is more apparent than real. In the few cases in which the teaching of the subject meets with anything like success, the result actually achieved falls far short of what could be achieved under a different and better devised system.

Geometry, we all know, is one of the three mathematical subjects prescribed for the Upper Secondary classes, but the pupils in general, I am constrained to say, seldom see the connection that there is between the three subjects, nor is it quite possible under the present system of Geometry teaching for any teacher to make the connection clear to High School pupils and more particularly to those of the Fourth Form. The Sixth Form pupils may perhaps be said to realize dimly the relation, when they have to study the subject of algebraical problems and square and cubic measure. Many of the propositions of the First Book, requiring as they do an intense application

of the faculty of reason, bewilder or fall flat upon most of the Fourth Form pupils, when they begin to learn the subject anew, inasmuch as they have been told absolutely nothing about the bearing of the newly taught subject on what they had already learnt. I can point out hundreds of High School boys who, after a course of three or four years' study of Geometry, are in blissful ignorance of the cardinal principles of the subject, and the more industrious and persevering in the Fourth and Fifth Forms, or, for that matter, even in the Sixth Form, learn by rote what propositions might, in the opinion of their teacher, be asked in the final examination. What is more regrettable is that some teachers in their eagerness to produce good results dictate to their class certain riders with their solutions in view of the final examination and compel their pupils to keep them in mind till the time comes for their reproduction. The subject, as it is at present handled, is neither English Prose nor Geometry, because it neither supplies expression and matter nor develops reason.

Let us next ask, what is the cause of this sad state of things? Does the teaching of the subject which at present obtains in schools admit of no improvement? Are the teachers in charge of the subject incompetent to follow a better method? Or, are they unwilling to have the time-honoured method of teaching altered? In my opinion the true cause is the unwillingness of the educational authorities to move in the matter. If they only move, the much-needed reform in the direction of Geometry teaching will be a *fait accompli*. Not a few there are among the teaching staff of the Presidency who feel the need of such a reform.

It is by no means a hard thing for us to draw up a new syllabus for the Madras High Schools. Before sketching a syllabus, however, I should like to describe how the pupils should be prepared for a formal study of Geometry. In the Primary classes, they do the kindergarten and it must be granted that it is gaining in popularity even with the Primary teachers. One may desire to

know how the kindergarten done in the Primary classes affects the teaching in the Lower Secondary classes. If the kindergarten system does not go beyond the Primary standard, there must be a subject of instruction for the Lower Secondary classes which is a legitimate expansion of that subject as a whole or of any aspect of it. It is only then that the faculties exercised by the kindergarten will attain increased development, the pupils will realise the connection between the Primary and the Lower Secondary curricula and the existence of the kindergarten in the Primary curriculum can at all be justified. The Primary teachers as well will then be disabused of the notion that the kindergarten is an isolated subject with absolutely no connection with the Lower Secondary subjects. A subject of instruction whose educational value is not brought home to the teacher cannot but receive an indifferent treatment at his hands. If, on the contrary, the teacher is convinced that the efficient handling of a subject will not only pay in the next examination but also contribute to the mental and the physical well-being of his pupils in the long run, he will, provided he is conscientious, strive to do justice to it. There are three other subjects, *viz.*, drawing, conversation and the object lessons, introduced in the Lower Secondary Department which do not appear to receive the attention they deserve from the teachers. The upholders of the traditional mode of teaching are, I presume, under the impression that these three subjects are mere intruders in the school curriculum and serve no great purpose. But it is quite possible to devise a course of instruction for the I and II Forms that will follow up the kindergarten exercises already gone through in the Primary classes, affording ample scope for the exercise of observation and expression. In the kindergarten classes the children handle solids of various shapes, sizes and colours, and their observation, ingenuity and invention are well exercised by their examining the solids, arranging and rearranging them so as to give certain prescribed forms. Certainly we do not exhaust

the subject of shapes, sizes and colours in the Primary classes, and we may bring in, in the I and II Forms, other solids of other shapes, sizes and colours, indeed of a more advanced kind, and get the pupils to observe and speak about them in the class, all the while so shaping the lessons as to pave the way for the introduction of the basic elements of Geometry in the III Form. I am quite alive to the difficulties to be experienced in framing such a syllabus, but feel bound to say at the same time that it is a thing worthy of an attempt; for, to quote the phrase with a little alteration, we kill more than one bird with one stone, we thereby secure the unity of instruction or correlation of studies in the several classes and help on the growth of observation, invention and expression in children. I should not be understood to say that all conversation, drawing and object lessons given in the first two Forms should be on objects of geometrical shapes, but only a fair proportion of them. I know there are other natural objects of great educational value to engage the observation and attention of the school-going children. After such a course of preliminary Geometry lessons, the pupils may be taught in the second session of the II Form, the use of the instruments such as a ruler graduated in inches and fractions of inches, in centimeters and millimeters, a set square, a protractor, a pair of compasses, and a pair of dividers. They may also be taught to measure accurately lines and angles, to construct and recognize the simpler plane and solid figures, to solve problems by drawing to scale. A series of exercises in paper-folding may with great advantage be given on the lines indicated in Practical Geometry Books. The pupils must be gradually led on to discover many geometrical truths which may be formally demonstrated later on, and also to put into words and make notes of all such discoveries. It cannot be out of place here to make mention of an old book on Elementary Geometry by Godfrey and Siddons which contains a series of preliminary lessons on experimental work in Geometry. In the same book we

find also a course of Theoretical Geometry divided into four books. "The experimental method is still prominent in the shape of exercises leading up to propositions. The sequence of theorems is Euclidean in form but greatly simplified by the omission of non-essentials. The treatment of problems is practical, fulfilling the purposes of a book on Geometrical Drawing." Such a book contains exercises for all the High School classes from the Second Form upwards. For the first two Forms no text-book should be used, but a course of conversational lessons on geometrical plane and solid figures should be given by the teacher, the pupils at the same time being required to handle, examine and speak about them. Easy constructions the children must be got to do. It must be granted that mere talk with nothing substantial to talk about is hard even for a grown-up man and to engage in conversation young pupils whose stock of concrete facts is very limited is quite out of the question, unless the pupils are face to face with real objects and made to examine and speak about them. If young children are accustomed to observe objects and express as far as possible in their own words the result of their observation, not only do their observation and expression develop, but the habit of saying what has been actually seen or known for truth is early formed. There could at the same time be growing in the mind a desire to discover and give out the truth and nothing but the truth. If every school boy is thus early taught to value truth, we can well understand how much it would contribute to the moral well-being of the whole community, not to speak of the effect upon the young learner himself. Further, there is the habit of neatness and accuracy early inculcated. Here we lay the foundation of good character in young children; if it is rightly laid, the superstructure becomes easy and there will, in no long time, come into being a community of men with high character. Much of the frivolous or empty talking that is so much the fashion with us now will soon disappear, and there will be seen instead a certain measure of straight-

ness and correctness in every dealing of ours. Apart from this moral value, there is also the economic; if in the course of these exercises, any of the pupils happen to show superior manipulative skill, they may be advised to pursue their studies further in that direction, and the country will be a gainer by the coming in of such high skilled mechanics, artisans or artists.

To come down to the class room. What a delight it would be to be in a class room where the pupils are so busy observing and constructing! There will be under the new system of teaching none of that gloom or languor that so largely prevails now in the lower forms, where, the pupils having almost nothing to observe and absolutely nothing real to talk about, the teachers have to dictate both ideas and words; and what is more comic here is that the pupils pass off as their own these words and ideas with all possible transformations and distortions when an opportunity for any such display comes. Here the wonder is that both the examiner and the teacher are persuaded into the belief that the conversation lesson system has been so far a success. Can there be a greater farce? Is it necessary to have two kinds of lessons such as the conversation and object lessons separate in the lower Forms? Can they not be combined into one? The two subjects, I think, may be grouped together, and a portion of the time now devoted to them in the lower Forms may be set apart for the study of the geometrical solids, their sizes and shapes. Some of the drawing lessons may also be on the same subject. With a grounding like this, study of theoretical Geometry in the higher forms is bound to be a work of amusement and pleasure, and the quantity and quality of the knowledge of Geometry possessed by an average matriculate will certainly be very respectable.

If it is true that every science has two sides, the practical and the theoretical, and if Geometry is a science, it is incumbent upon the educational experts to recognize the practical side of the subject and assign to it the place it deserves in the school curriculum. If the practical side is formu-

lated and the way to follow it is shown by men knowing it, the teachers of the lower classes, whose knowledge of Geometry is necessarily limited and who cannot be so original as to mark out a path for themselves, will, in course of time, feel the system a godsend, and the learners in their turn will assuredly thank the originators of the system at every step of their progress in the study of Geometry. If, on the contrary, the authorities do not awaken to the responsibility of reforming the system of Geometry teaching, they must be said to have failed of their duties and all the evil consequences of bad teaching must be attributed to them, and not to the poor half starved teachers.

Having in a manner indicated the advisability, nay, even the necessity of our doing some preliminary and practical work in Geometry in the lowest forms, I may venture to add that a training of the kind will not only render more effective the study of formal demonstrative Geometry, but facilitate, in no small measure, the study of all sciences. I beg leave to suggest a

scheme of work in Geometry both for the lower and the upper forms, though it may be thought presumptuous in me to do so. As I have already said, no text-book on Geometry should be prescribed for the lowest forms, but to systematise his teaching the teacher must necessarily follow a suitable book in experimental and practical Geometry. Important theorems of the first two books of Euclid with geometrical illustrations of algebraical identities may be taught in the Third and Fourth Forms. The properties of circles and similar figures may be taught in the Fifth and Sixth Forms. I refrain from entering further into the syllabus questions, because I feel that there are men in the field of education far more able and experienced than myself, who, if they only think of it, can do abundant justice to the subject. I am quite aware that these suggestions of mine are worth little, but I make bold to give expression to them in the hope that they will intensify ever so feebly the cry for mathematical reform that is felt here and there.

BOOK REVIEWS

EXAMINATIONS IN INDIA BY RAI BAHADUR D. N. MUKERJEE, RETIRED PRINCIPAL, AGRA TRAINING COLLEGE, HIND KITAB, HORNBY ROAD, BOMBAY 48 pp. Rs. 0-12-0.

IN the preface, the author says: "I believe that no reform of education in India would be possible until examinations by marking are reformed almost out of shape. In the booklet, which has been divided into four chapters—Introductory. The Problem, The Technique and summary of suggestions—the problem of the unreliability of examiners' marks is set forth in detail. The suggestions made in 1939 in his *Reform of Examinations with special reference to the High School Examinations in U. P.* (reviewed in these columns in November 1939) are reiterated. The author pleads for (1) the adoption of the principle of equivalence of marks in the various examination subjects and (2) allowing schools to share actively in the task of passing final judgment on their products.

The concept of equivalence of marks has been discussed in detail by Crofts and Jones in *Secondary School Examination Statistics*. The second statistical consideration is the determination of the probable error of each mark, calculated with the aid of the technique discussed in paragraph 603 of the *Memorandum* of Dr. Cyril Burt and incorporated in *Marks of Examiners* by Hartog and Rhodes.

The author makes a passionate appeal for all concerned with education to study this problem objectively and remedy the defects of examinations as conducted at present. A study of this book will prove useful to teachers.

INDIAN ADOLESCENCE BY M. J. MUKERJEE, INSPECTOR OF SCHOOLS, U.P.T.C.E. JOURNALS AND PUBLICATIONS LTD., P.B. 63, LUCKNOW 152 pp. Rs. 3-0-0.

Adolescence represents a crisis in an individual's life, as it is a period of

national basis and leading to a certificate of craftsmanship at the end of the course. "The Committee recognise the fact that the best way of providing good craftsmen is through comprehensive and systematic apprenticeship. Accordingly it advocates that the first part of the training should be given in specially designed training centres and the second in workshops actually engaged on production. The total duration of training should be 3½ years of which the first two years should be spent in a training centre and the balance as an apprentice in a factory.

"It is recommended that Training Centres for 4,608 craftsmen should be immediately started in Bengal and Assam, Bombay, Madras, United Provinces, Punjab, Bihar and Orissa, Delhi, Central Provinces, Sind and N. W. F. P. The annual outturn of these centres will be 2,304 trainees,

"This will only be a modest beginning: for the figures collected at the instance of the Committee regarding the number of skilled and semi-skilled workmen employed in Government and private engineering works showed that the annual requirement of trained craftsmen was approximately 16,000, for which a total of 32,000 seats would be required. The Report, therefore, emphasises that further effort will have to be made to increase the training facilities, if the needs of the industry are to be met in full.

"In each region, Regional Technical Committees should be constituted to deal with the local administration of the Scheme, to supervise training, to arrange for trade tests and for providing apprenticeship training to those who complete their training satisfactorily at the Centre. These Committees should also be responsible for recruiting apprentices."

We point to the attention of our readers the glaringly insufficient scales adopted for some grades of teachers

V. Teacher's Salaries. in our High Schools and colleges—a matter on which the Vice Chancellor of the

Madras University expressed himself strongly, when he presided over the City Boys Day of the Christian College High School on the 11th August last. He said that he was pained to see an advertisement for a Geography L. T., on a scale of Rs. 50-¾-75 and warned the school managements that such shabby scales would only mean that untrained and insufficiently qualified teachers would have to be resorted to. But, even in Government Colleges and in Universities the minimum pay of a teacher or demonstrator is fixed at Rs. 50. The absurdity of such low scales is obvious, particularly in their infectious and demoralising effect. It is time that the Sargent scale of salaries for High School Trained Teachers is enforced by Government in all schools.

THE FAMOUS ASTROLOGER

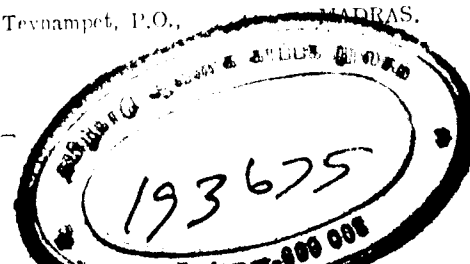
[Office Estd. 1924]



Recipient of many gold Medals and Certificates from Maharajas, Judges and notables for accurate predictions and for advising correct ancient scientific remedies to neutralise planetary influences and for achieving health, wealth, wisdom, friends and fortune. One year monthly life reading Rs. 5/- 3 questions re-futurity Re. 1 - Personal consultation Rs. 5/- Office Hrs. 8 a.m., to 5 p.m. (Send birth details or writing time).

Pandit Kaliyur M. SRINIVASACHARIAR

"Chandrika" Eldams Road,
Tevampet, P.O., MADRAS.



BOOK REVIEWS

OXFORD PAMPHLETS ON WORLD AFFAIRS: No. 67, FRENCH FOREIGN POLICY BY D. THOMSON; No. 68, THE BRITISH COLONIES BY V. HARLOW; No. 69, FRANCE BY D.M. PICKLES; No. 70, JAPAN BY SIR G. SANSOM.

THE first discusses the failure of French foreign policy in its main objectives in the years 1931-38. Briand's idealism is also noted; and the virtual merger of French with British policy, completed in 1938, should show that French failure was as much British failure also.

Harlow, while summarising the progress in British colonial achievement, points out the "immense magnitude and delicacy of the political task to which we have gradually committed ourselves". The process of applying self-government is to be extended even to the Africans, as it has been already extended to other coloured colonialss Imperialist in the essence, the author holds, that the ultimate responsibility for colonial development should continue to rest on the citizens of Britain.

In tracing French contribution to European culture and civilisation, Pickles points out the economic and social weak-

nesses of the French nation, with special reference to their political impact. The third Republic had never fully secured its letters of credit, throughout its seven decades of existence; but it did achieve something real. France has more justification than Great Britain for her multiple parties; and there is much less cohesion among the right, than among the left parties. From the Munich Pact to the outbreak of war in 1939 disunity was intense both on internal and foreign policy; and the Left was hopelessly divided on the pacifist issue.

The account of Japan is not so revealing as one could expect it to be; but this is to be expected because the writer could not foresee the cataclysm of August 1945. The jerkiness marking Japan's transition from the feudal to the modern type of state; and several indefinite elements in national life have given rise to difficulties not capable of easy adjustment. It cannot be taken for granted, that defeated Japan will settle down to life as a respectable weak power. The writer warns us against the appearance of autocratic leaders in liberal disguise, just at this juncture, after the fall of the nation.

BOOKS

used in The Educational Review and for every description, please write to:

THE MANAGER,

EDUCATIONAL REVIEW (Book Department)

14-A, Sunkumar Street, Triplicane, MADRAS