

MADRAS EDUCATION

"The destiny of India is now being shaped
in her class rooms"

—*Education Commission Report.*

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EDITOR :

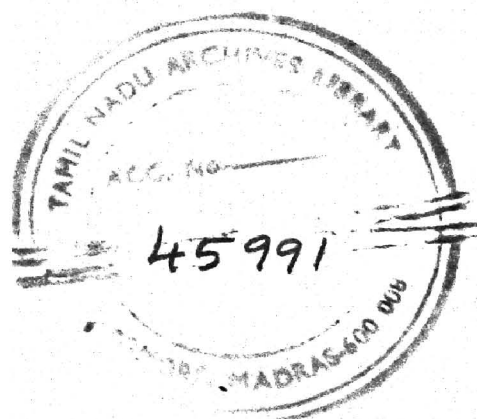
H. S. S. LAWRENCE,

Director, State Institute of Education, Madras.

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MESSAGES

M.E.—1A



THIRU C. N. ANNADURAI, M.A.,
Chief Minister of Madras.

C. N. ANNADURAI

Chief Minister

Government of Madras.

FORT ST. GEORGE

MADRAS-9

Dated, 20th March 1967

Madras has made significant progress in the field of education. It should be the aim of our educationists to improve educational practices with a view to draw out the best in the young ones and to prepare them to take up their duties and responsibilities as citizens. The successful working of the complex machinery of the State with the growing emphasis on economic reorganisation, depends wholly on the quality of the human material which we employ to run it. I am glad to know that the Director of the State Institute of Education is bringing out a Quarterly to focus attention on improved methods in imparting instruction. I wish the Journal all success.

C. N. ANNADURAI



THIRU V. R. NEDUNCHEZHIAN, M.A.,
Minister for Education and Industries

V. R. NEDUNCHEZHIAN

Minister for Education and Industries

Government of Madras.

FORT ST. GEORGE
MADRAS-9

Dated, 20th March 1967

In countries which have made enormous progress in Science and Technology, the tools and techniques employed in imparting education from the primary to the collegiate classes have helped to produce excellent results. It is but necessary that we in this country who are planning for progress on all fronts should examine the techniques that are in use in other countries and examine them as to how far they could be adapted to conditions here. This could be done only by specialists. I am glad that "MADRAS EDUCATION", published by the Director of the State Institute of Education, is devoting itself to a research into the means and methods of improving the quality of education in our institutions.

I wish all success to the efforts of this Journal.

V. R. NEDUNCHEZHIAN

MADRAS EDUCATION.

From the Editor's Table.



COMMENTARY

MADRAS EDUCATION offers its felicitations to the New Ministry formed in Madras State.

We are thankful to the Chief Minister and the Education Minister for their inspiring messages published in this issue. The Chief Minister has rightly stressed the significance of "*improving educational practices with a view to draw out the best in the young ones and to prepare them to take up their duties and responsibilities as citizens*". The Education Minister has aptly pointed out the great importance of "*the tools and techniques employed in imparting education*" and of "*research into the means and methods of improving the quality of education in our Institutions*".

MADRAS EDUCATION was released by Dr. M. D. Paul, Director of Secondary Education on 31st January 1967 before a distinguished gathering of Headmasters at the State Institute of Education. The first copy was handed over by him to Sri S. Balakrishna Joshi, Headmaster, the Hindu Theological High School, Madras. The Director mentioned that MADRAS EDUCATION is "a joint venture of the Department and teachers", and that it would help "the exchange of good teaching practices in schools".

Dr. Robert Caldwell, American Consul, Madras, who presided on this unique occasion, offered his "congratulations for the obvious careful attention paid to the new publication's format and contents".

We express our grateful thanks to them and hope that MADRAS EDUCATION would stimulate teachers, parents and educational administrators to improve what they are doing.

The second issue of this quarterly has a variety of articles from distinguished educationists. Sri K. G. Saiyidain defines the "Concept of Man" in excellent terms. Sri B. J. Carroll has outlined a few principles of language teaching which are a sufficient guide to establish a firm basis for our language teaching methods. Dr. Lawrence advocates planned field-trips as useful instructional activities. "Every child deserves the best teacher," says Sri S. Narasimhan who was the recipient of the National Award during 1966-67. Two very good school practices are described by Sri S. Devanayagam. Sri H. B. Majumdar shows how Basic Education is never in conflict with true science. The charms of

Mathematics are revealed by Sri T. S. Rajagopalan though it is said
“ Multiplication is a vexation ”.

The Editor hopes that these articles and the other special features would be welcomed. We commend to our readers especially the views of some of the recipients of State Awards for Primary School teachers, the techniques of organising science fairs, the suggestions for improving our Teachers' Association centres and the list of science equipment recommended for Standard VI.

EDITOR.

A PHILOSOPHY OF EDUCATION.

“ Philosophy must at each successive stage of growth help men to set up appropriate aims and ideals of life. A suitable philosophy of education must help practical school people find the educative procedures necessary to attain these aims and prepare for still higher. Education must bring up successive generations devoted to making life really good for all.”

—W. H. KILPATRICK.

Exchange of Better Educational Practices

“Madras Education” Released on 31st January 1967

Ever since independence, there has been an unprecedented growth of education in India. This has meant increased number of pupils, schools and teachers. But we have to ensure that the type of education given in these institutions is good-quality education. Unless quality is kept up there will not be adequate returns for the large sums of money—public and private—spent on education.

You know, by God's grace, I was privileged to work with the Education Commission of the Government of India. One of the major things that we found out, particularly in relation to the preparation of teachers,—which as you know is most important and essential in the process of education,—is that we have been adopting practices and findings of other countries. We usually follow the lectures and books of Professors and Principals in Teachers' Colleges. These are mostly based on findings of other countries with reference to the social position, the problems and cultural heritage of those nations. Now what do we find in our Training Schools? The same teachers who are trained in the training colleges, are the teacher-educators in the training schools. They follow similar procedures and the same thing gets repeated. In the Education Commission, we also found that research on important problems of Indian Education was not very widespread in India.

During the last few years, however, many of the Educationists, Psychologists and Professors in India have started writing books on Psychology, methods and many other aspects of educational development. But even in these, their source material has primarily been the findings of other countries. No doubt they are very valuable, particularly from the United States of America and England. They have spent crores and crores of dollars and pounds on research. I can give you one instance where they have observed the behaviour of an infant from the moment that child was born up to several years and recorded findings. This can be well made use of. But education being based on social life, based on the culture and tradi-

tions, it is very necessary that we should have findings of the behaviour problems of our own children, of our teachers, of our parents and such like. Now steps are being taken to do so.

However, we find that in our schools, there is a large number of very good practices used in the process of teaching. This is true. We find in Tamilnad very devoted teachers, teachers who could compare, in their make up and skills, to the best of teachers anywhere in the world. But unfortunately, just as many of the medicines that our ancient doctors knew were not communicated to others, so also in education all these valuable practices and materials get lost. That is why soon after independence we started “New Education” but unfortunately we did not develop it in the proper way so that it could meet the real needs of classroom teachers. We can no doubt, write many articles but the basic thing is, the classroom teachers should be able to confirm or correct his procedures and find in the Magazine some solutions to his day-to-day problems. Otherwise, any such magazine is not going to be of use to him.

Our idea in publishing “Madras Education” is to see that it meets a felt-need of teachers. We want this magazine to be a joint venture of the Department and the teachers. One of the ideas that we will develop in course of time is the exchange of good teaching practices in our schools. They are not to be brought in from so-called ideal schools, they are not to be brought in from just public schools and they are not to be brought from schools abroad, but there are many good practices which our teachers actually practice in teaching Arithmetic, in teaching Geometry, in teaching History, in teaching Geography and all other subjects. We want to gather these and classify them in the proper form and when teachers refer to current issues or back numbers, they will have enough materials to guide them in quality-teaching.

Another sad thing in our system is, although we give teachers professional training in an intensive

"MADRAS EDUCATION" RELEASED ON 31ST JANUARY 1967.



Dr. M. D. Paul, Director of Secondary Education addressing the gathering before releasing "Madras Education".



Dr. Robert W. Caldwell, American Consul addressing the gathering.



Sri S. Balakrishna Joshi, Headmaster, The Hindu Theological High School, Madras welcomes the publication of the Journal.

way, when they come and settle down to teaching in the school, with so much of routine work and so much of heavy work, somehow, there is a tendency on their part to let slip all the ideas learnt in the training institutions. The routine thing goes on whether you have magazines or not. But in the actual process of teaching it is our aim that we should be stimulated towards good practices.

I do hope when this State Institute of Education gets strengthened with more of research, more of the study of the behaviour of children in Tamilnad and many other socio-economic problems particularly pertaining to us, then it will give added fillip and strength to the teachers' work. So this Institute of Education as has been conceived, is the academic wing of the Directorate of Education and it will serve as a sort of liaison between the Directorate of Education and the schools and also the teacher training institutions. If teachers want to express their ideas and practices for the improvement of education, "Madras Education" will give them an opportunity. No doubt, there will be articles by experts in several fields whereby you will be stimulated to think what others are thinking in different parts of the country and in different countries of the world, particularly, the importance of education in national development in order that the future economic growth, cultural growth and social growth of the nation may take place. But the main emphasis would be the spreading at the level of teachers, better practices. I would particularly ask Headmasters and Headmistresses who have many good and experienced teachers to bring to the notice of the State Institute of Education all the good practices they use so that we could spread them in many places.

As the trained teacher comes in and joins the school we do not give much help to guide him in the new profession. He is just left either to swim or to sink. For an young teacher to face 40 to 50 students for the first time in his life, to answer their questions, to teach and to use the blackboard is indeed a psychologically difficult problem. Although he studies many ideas in the training college, many of these things are not given to him in the shape that would be useful to him in the class-room. To meet such needs, in course of time, we will issue many numbers of this magazine and it should be possible for such a teacher to refer to these and learn practically some of the more important procedures, methods, etc., to give him enough competence to face classes. For instance, the question of large sized classes is a big problem. This problem will remain with us for some more years to come. But we have to meet this need. In our training colleges we have not prepared teachers and developed in them skills to handle such big classes. Our training has been a sort of stereo-typed training for a particular need. But we have to help and guide the teacher to meet this need. In this respect also the Magazine can be of great help. Such practical problems can be taken up in "Madras Education".

Through this article in the "Madras Education" may I call upon all the Headmasters and Headmistresses to co-operate fully in this constructive enterprise; to think that this is their journal and to write to the State Institute of Education what sort of articles they want to meet their professional needs? This magazine should be used in all our schools and by all our teachers. Let the teacher refer to this regularly and get something useful for his day-to-day activities. We hope that with your co-operation, we will succeed.

THE TEACHER IS A TRUE MISSIONARY

"Teaching is not merely a way of earning a living important though it is. It is a faith to be served through thick and thin. It demands courage to withstand those who are apathetic, cynical and obstructive. It demands a sense of dedication, a willingness to make sacrifices and a readiness to suffer. Above all it demands an ever ready willingness to retain the common touch, to be with one's pupils, an unwavering acceptance of one's history's greatest lessons—that man has gone upwards to higher and better things through those qualities of the spirit which come to bloom and fruition in an atmosphere of acceptance, understanding and sympathy.

"The teacher needs not only to be a worshipper at the shrine of learning but a missionary in the service of childhood."

—T. L. GREEN.

ROBERT CALDWELL,
American Consul, Madras.

**"The spirit of dedication in teaching
which is the spirit of enthusiasm".**

The spirit of Dedication

I am sorry that Dr. Albert Franklin, American Consul-General, Madras could not be here himself. He participated in the Inauguration Ceremony of the State Institute of Education, and I am sure he would be here if he were not ill. It is my duty to represent him here and to convey his very great wishes for the success of this new publication "Madras Education". To his good wishes, I will certainly add my own.

I also add my congratulations for the obvious, careful attention paid to the new publication's format and contents. During this visit to the Institute, I have begun to learn something more of your primary and secondary education. I am made to feel very humble, as I come to realise that there are in your primary schools something like more than half a million children and I am just gasping at this enormous task to be faced by you. You have more children in your primary schools than the total population of my own State. It is a field of education in which I am personally interested. My father was a teacher, a professor of Ancient History in the University of North Carolina. I have many relations who are teachers in high schools in America. Teaching has been a family tradition for several generations, and I was supposed to be a teacher myself. But I was drawn to the foreign service.

I feel very strongly about what Sri Balakrishna Joshi just said while speaking about the spirit of dedication in teaching, which is the spirit of enthu-

siasm. The word "Dedication" tells us that is the last word in teaching. As I travel about in South India, people are always asking me in one form or another, what United States is doing, what its programmes are, and about food-aid and economic aid. I participate actively in the programmes of our Information Service, University Programmes, Library Programmes and so forth which I enjoy immensely. As I travel about, I have been asked what we have been able to do. I realise how small it really is! The "Care" Programme is a big programme in terms of numbers, but what we do is small in size compared to the enormous task in your schools of preparing the young pupils for one of the admirable nations of the world. For the future lies in the hands of the young citizens of this free and great nation. In this task whatever we may be able to do as a single foreign nation, or in co-operation with many other foreign nations, we still act with the humble feeling that it is a small part of the enormous task that has got to be done by your teachers, by your schools and by your educational institutions with all efforts. I congratulate you on the work that has been done in your schools, and I speak with a feeling of optimism for the future and hence with the feeling of complete confidence in the future of this great nation in fulfilling its destiny.

Thank you so much whole-heartedly for the opportunity of being here on this occasion. May I wish the publication great success!

THE IMPACT OF THE TOTAL ENVIRONMENT ON CHILDREN

There was a child went forth every day,
And the first object he looked upon, that object he became,
And that object became part of him for the day or a certain part of the day,
Or for many years of stretching cycles of years.
The early lilacs part of this child,
And grass and white and red morning-glories and white and red colour and
the song of the Phoebe bird,
And the third-month lambs and the sow's pink-faint litter,
and the mare's foal and the cow's calf.
And the noisy brood of the barn-yarn or by the mire of the pond-side.

—WALT WHITMAN.

K. G. SAIYIDAIN,

Director,

*Asian Institute of Educational Planning
and Administration, New Delhi*

*(Formerly, Educational Adviser to the
Government of India.)*

When man's life becomes dedicated to great purposes in which his whole work and passion are embedded.

The Concept of Man*

There are many questions that arise in defining this concept. Is man matter or spirit or the combination of both? Is he an agent of God on earth or dust that returns to dust without any intrinsic significance? Should our attitude be one of optimism or pessimism about man or one of "meliorism"? Is the real man good or bad, compassionate or cruel, creative or destructive? Is he to be conceived in geographical or linguistic or racial term or is there such a thing as a universal man? Men of all kinds and qualities from the highest to the lowest were included in the concept of Man but the essential purpose of his evolution was to move from the lower to the higher level, and to take an active part in making this world really worthy of his habitation, where he can live in freedom, dignity and in a climate of tolerance and peace.

There are many issues involved in this great debate. Firstly, while man has his links with the animal world, and his creative needs and their satisfaction is important, the highest objective of his life is to promote the life of the spirit which expresses itself in art, literature, philosophy, religion and other products of intelligence and imagination. The controversy arises because those who advocate the so-called materialistic view of life look upon the accumulation of goods and riches as the end of life and not as a necessary means for the fulfilment of its higher and more characteristic purposes. On the other hand, those who stand for other values, which belong to the domains of intelligence and art, are often content to withdraw from the world of matter, as it were, and seek their own ivory towers of reflection or spiritual exercise, without involving themselves and their intellectual powers in trying to change and improve the world. In the past, such a division of the people in two classes was possible—though never defensible. In the world of today, it is out of the question and our great need is to keep the dialogue, going between these two worlds. There is a good case for a "tempered ascetic approach" to life, provided it was not meant for

the "other fellows" but for oneself and resulted in being able to rise superior to the material temptations of the world.

Secondly, man is not translatable merely in racial, geographical or linguistic or communal terms. These are accidental differences due to birth or location, etc., and account should certainly be taken of them. But he should learn to transcend these differences and limitations and become eventually the "universal" man, who will be a citizen of the world, able to live and work co-operatively in this new "one world" which is developing irresistibly.

Thirdly, man is above all a *creative* being. Judged from many *other* standards, he is *inferior* to other animals but his gift of intelligence and creativity raises him *far* above all other forms of creation. In the religious idiom, he is superior even to the 'angels' because he enjoys the freedom to do right or wrong and this freedom confers on him a much higher responsibility and potential greatness. A cultivation of this gift of creativity amongst those, who may not themselves be creative, is an essential condition for ensuring progressive and civilised living. An Einstein or a Gandhi, who has this gift in some field of his own, is more significant for mankind than a million of humdrum individuals. This involves the cultivation of high respect for individuals—even in this age of large-scale organisations—who can dissent with the majority courageously, when necessary. The mass can never compensate for the quality and the uniqueness that belong to the individual. I depreciate the idea of the "organisation man" who oils his way through life and hides his real opinions and convictions so as to be on the right side of men in authority. "Creativity" was discouraged or feared by many people because it threatened vested interests and institutions. But a tame acceptance of what is as right and a fear of the unknown are serious impediments in the way of progress and man's self-fulfilment. In this growing and expanding world, man

*Inaugural Address at the Seminar on the Concept of Man at the Muslim University, Aligarh, on the 5th of February 1967.

must not only go on perfecting his tools of activity but also refining and defining his purposes more perceptively and comprehensively. For this purpose, it is necessary that the new and incredible resources of *power* that he has obtained through science and technology should be wedded to *vision*. Otherwise, it will become the undoing not only of our culture and civilisation but of human life on

earth. When man's life becomes dedicated to great purposes in which his whole work and passion are embedded—in art, science, literature social sciences, etc.—“ then this little rivulet becomes part of the great ocean of life and this mortal puts on immortality and even death ceases to have any terrors for him ”.

AVOIDING LANGUAGE ERRORS

WRONG

1. I like you *and* you don't like me.
2. Little Tom reads *good*.
3. We had to repeat the song *again*.
4. It is *no where near* six O' clock.
5. The matter was referred *back* to you a month ago.
6. I rarely *ever* eat Oysters.
7. I am not as silly *as* you think.
8. The General came to the meeting later *on*.
9. To understand the pattern divide the sections *apart*.
10. The plumbers *have* tightened the valves yesterday.
11. Who *drunk* my soda ?
12. She together with four children *were* waiting for the bus.
13. *Can* I borrow ten dollars ?
14. Don't give me a *large-size* drink.
15. Each will prepare *their* own coffee.

RIGHT

1. I like you *but* you don't like me.
2. Little Tom reads *well*.
3. We had to repeat the song.
4. It is not nearly six O' clock.
5. The matter was referred to you a month ago.
6. I rarely eat Oysters.
7. I am not *so* silly as you think.
8. The General came to the meeting later.
9. To understand the pattern divide the sections.
10. The plumbers tightened the valves yesterday.
11. Who *drank* my soda ?
12. She together with four children *was* waiting for the bus.
13. *May* I borrow ten dollars ?
14. Don't give me a *large-sized* drink.
15. Each will prepare *his* own coffee.

— CLARENCE STRATTON
(AVOIDING LANGUAGE ERRORS)

U.N. Declaration on the Important Role of Youth in World Relations

By acclamation, the UN General Assembly adopted on December 7, 1965 a Declaration on the promotion among youth of the ideals of peace, mutual respect and understanding between peoples.

The proposal for such a Declaration had first been put forward by Rumania in 1960. In 1963, twenty-six delegations jointly sponsored a draft declaration on the subject which by a later decision was transmitted to member States for their comments. UNESCO was also asked to get the views of national Commissions and youth organisations on the draft text. In 1964, the International Conference on Youth, organised by UNESCO, unanimously recommended the adoption of such a Declaration by the United Nations.

At its session in December 1965, the General Assembly recalled that UNESCO has, as its purpose, "to contribute to peace and security by promoting collaboration among nations through education, science and culture" and recognised "the role and contribution of that organisation towards the education of young people".

The Assembly Resolution went on to affirm the important part being played by young people in every field of human endeavour and the fact that they are destined to guide the fortunes of mankind. It added that "in this age of great scientific, technological and cultural achievements, the energies, enthusiasm and creative abilities of the young should be devoted to the material and spiritual advancement for all peoples".

The resolution then "calls upon Governments, non-Government organisations and youth movements to recognise" the following six principles:—

I. Young people shall be brought up in the spirit of peace, justice, freedom, mutual respect and understanding in order to promote equal right for all human beings and all nations, economic and social progress, disarmament and the maintenance of international peace and security.

II. All means of education, including (as of major importance) the guidance given by parents or family, instruction and information intended for the young should foster among them the ideals of peace, humanity, liberty and international solidarity and all other ideals which help to bring peoples closer together, and acquaint them with the role entrusted to the United Nations as a means of preserving and maintaining peace and promoting international understanding and co-operation.

III. Young people shall be brought up in the knowledge of the dignity and equality of all men without distinction as to race, colour, ethnic origins or beliefs and in respect for fundamental human rights and for the right of peoples to self-determination.

IV. Exchanges, travel, tourism, meetings, the study of foreign languages, the twinning of towns and Universities without discrimination and similar activities should be encouraged and facilitated among young people of all countries in order to bring them together in education, cultural and sporting activities in the spirit of this Declaration.

V. National and International associations of young people should be encouraged to promote the purposes of the United Nations, particularly International Peace and Security, friendly relations among nations based on respect for the equal sovereignty of States, the final abolition of colonialism and of racial discrimination and other violations of human rights.

Youth organisations in accordance with this Declaration should take all appropriate measures within their respective fields of activity in order to make their contribution without any discrimination to the work of educating the young generation in accordance with these ideals.

Such organisations, in conformity with the principles of association, should promote the free exchange of ideas in the spirit of the principles of this

Declaration and of the purposes of the United Nations set forth in the Charter.

All youth organisations should conform to the principles set forth in this Declaration.

VI. A major aim in educating the young shall be to develop all their faculties and to train them to acquire higher moral qualities, to be deeply attached to the noble ideals of peace, liberty, the dignity and equality of all men, and imbued with respect and love for humanity and its creative achievements. To this end the family has an important role to play.

Young people must become conscious of their responsibilities in the world they will be called upon to manage and should be inspired with confidence in a future of happiness for mankind.

On the occasion of this declaration Mr. Rene Maheu sent a message to Mr. Amintere Fanfani, President of the General Assembly, which states,

"It is with deep satisfaction and great joy that I welcome the adoption by the General Assembly of the United Nations of this Declaration. UNESCO, having been associated with the preparation of this text, cannot but rejoice at an event of such far reaching importance.

"I am convinced that the Declaration will constitute a most valuable instrument for UNESCO in its ceaseless efforts aimed at educating the young in International Understanding. I think that UNESCO's long-term programme for youth, which will be submitted to the General Conference at its next session (1966) should prove a practical follow-up to the Declaration since it aims at encouraging youth to take on active share in the economic, social and cultural development of their communities and including them in projects for International Co-operation; in a word, at giving them an opportunity to use their energies for the building of a more just and more brotherly world."

THE GOOD TEACHER IN 1416.

From earliest times to the present, great thinkers have directed their thinking toward the education of children. In 1416, a renowned discoverer of ancient learning, Poggio, found the complete text of Quintilian's Institutes of Oratory at a Swiss monastery in a dumpheap in one of the towers of the abbey. The two books came to be viewed as summarizing all the pedagogical wisdom of the ancients. The following quotation from Quintilian shows the trend of his thinking about the successful qualities of the good teacher.

"Let him therefore adopt a parental attitude to his pupils, and regard himself as the representative of those who have committed their children to his charge. Let him be free from vice himself and refuse to tolerate it on others. Let him be strict but not austere, genial but not too familiar: for austerity will make him unpopular, while familiarity breeds contempt. Let his discourse continually turn on what is good and honourable; the more he admonishes, the less he will have to punish. He must control his temper without however shutting his eyes to faults requiring correction: his instruction must be free from affection, his industry great, his demands on his class continuous but not extravagant".

—JAMES MONROE HUGHES—(Education in America.)

Principles of Language Teaching

In my last article we looked at some of the problems facing us as teachers of language to children. We discussed some of the ideas relevant to the teaching of English to Indian children in our class-rooms. In this article I would like to outline a few principles of language teaching.

We will all agree that the main function of language is *communication*. We can realise this more strikingly by imagining what would happen if we became deaf and dumb. We would not be able to hear or to speak any language. If in addition we were to become blind we would not be able to read, and then if our hands became paralysed we would not be able to write. How could we then communicate with our family and our friends? So you will realise that without language, communication is extremely difficult.

Let us now look at the raw materials of language—the sound vibrations in the speech system and the marks on paper in the writing system. For teaching purposes we can look on language (as we said in our last article) from four aspects. In the following table we will see this in diagrammatic form :

TABLE A.—FOUR ASPECTS OF LANGUAGE.

<i>Sounds</i>	Hearing | Speaking
	———Language———
<i>Symbols</i>	Reading | Writing.

These four aspects of language are all contained within the unity of language, that is, they are not separate and unrelated aspects but are closely connected like the two sides of a coin. I will say straight away that a proper system of language teaching must deal with each of these four aspects—of hearing, speaking, reading and writing. In some courses we might be concerned with writing, in other

courses we might be concerned with speaking, but these two aspects of language are so closely related that improvement of performance in one must be connected with improvement in performance of the other. It is usually agreed that for young children the introduction to language is best made through the sound system—through hearing and speaking. When the sounds have meaning for the children, we can then introduce the symbols of reading and writing. It is also agreed that children should have practice in receiving language before they are asked to transmit it. In other words, we usually let the children hear before we ask them to speak, and let them read before we ask them to write. I think this way of teaching is sensible, although I think interest and variety can be gained by varying our approach, according to the circumstances. In fact we cannot tell without very careful examination which is the best mixture of skills or which is the best order of approach for any one purpose. To decide this, we need plenty of experiment and careful study of the children.

One very important principle in language teaching is that *language is a skill*. In this respect, learning to use language is very similar to learning to ride a bicycle or learning to swim. If we study the frame of a bicycle or the mechanics of cycling and handbooks on how to ride a bicycle in traffic, and then get on a bicycle for the first time, we will find that we will probably fall off and will feel rather discouraged because all our studies seem to have been in vain. This is because we have tackled the job from the wrong end. Similarly, if we study the principles of flotation and the physical mechanics of swimming and jump into a deep pool, our studies will not prevent us from sinking to the bottom. If we survive our rash behaviour and are rescued, we will realise that studying the principles of swimming is not enough. The learning of the principles should have been accompanied by the practicing of the skills. Otherwise our studies are just empty verbiage.

I think you will realise through these examples that learning the grammar of the language and learning examples of a language through its literature are probably quite inadequate as a preparation

for the use of the skills of language in the many situations which we face. *The best way to learn a language is to practise it in interesting situations.* If you intend to use the language you should study the rules only in the context of your growing mastery of the language. In other words, your study should follow your skills, not precede them.

I will now introduce certain concepts which are important in establishing principles of language teaching. These concepts are *co-text*, *context*, *translation* and *grammar*.

If you were in a strange country and wanted to know the 'meaning' of a strange word or sentence it would not be of much help if one of the people explained the 'meaning' with a long string of words in *his own language*. The explanation is just as strange to you as the original word was ; this is 'explaining the unknown by the unknowable'. Sometimes you look up the 'meaning' of a word in a dictionary and find that the definition is even more difficult than the word you are looking up. These two examples of the explanation of 'meaning' have been done by co-text. Co-text, then, consists of other words in the same passage or environment. With learners and others with a poor mastery of a language, co-textual explanation is dangerous because there is no guarantee that the learner understands the language of the explanation any better than he understands the original word or words.

To return to our strange country, it would be possible for a native to explain to a visitor the meaning of a word in the *visitor's own language*. This is possible because the visitor at least understands his own language and the chances are higher that the explanation will have some significance to him. We call this 'translation'. Translation has its own uses, but suffers from the big disadvantage that

learners who use the translation method on its own, tend to be anchored, as it were, in their own language and find it difficult to move freely in the language they are learning. In other words, although translation is a useful device, it is not a wholly satisfactory teaching system. Translation is also difficult to operate in a multi-lingual community whose members do not have equal mastery of any one common language.

A third way of explaining the meaning of a word, to a visitor would be by showing the actual thing or situation. The word for 'horse' would be explained by pointing to a horse ; the verb 'to read' would be demonstrated by taking up a book and reading it, and so on. This linking of language to the actual thing or event is called teaching by 'context of situation'. In this method, language is taught not by explanations in the original language or in the learner's language but by reference to life itself.

All these methods of language teaching—by co-text, by translation and by context of situation—can be used for various purposes. The one most favoured at present, especially for young children, is the third one, context teaching.

There is another approach to language teaching which is probably no longer used alone, and that is the approach by Grammar. In this approach we learn all the rules of Grammar and their application to the language concerned. This is rather a specialist approach, and although it has a part in the activities of professional linguists or grammarians, it is not very useful for students and virtually a waste of time with young children who find it boring and unintelligible. The place of grammatical studies in language teaching is *outside* the class room.

TABLE B.—FOUR APPROACHES TO LANGUAGE TEACHING.

	<i>Advantages.</i>	<i>Disadvantages.</i>
Co-text	(a) Commonly used (with texts) (b) Useful if of suitable difficulty level.	(a) ' Explain unknown by unknowable ' (b) Usually low motivation/interest level. (c) Concepts and cultural background often strange to learner. (d) Useless if difficulty level is high.

TABLE B.—FOUR APPROACHES TO LANGUAGE TEACHING—*cont.*

Advantages.

Disadvantages.

<i>Translation</i>	(a) Meaningful.	(a) Assumes common language for teacher and students.
	(b) Higher motivation/interest level.	(b) Depends on 'translatability' of material.
		(c) Impedes ultimate direct use of language as a skill.
		(d) Maximises language interference.
<i>Context</i>	(a) Meaningful.	(a) Needs special skill on part of teacher.
	(b) High motivation/interest.	(b) Material limited by classroom environment.
	(c) Direct use of the language.	(c) Does not easily fit present syllabus-examination framework.
	(d) Basis of a child's learning of its own language.	
	(e) Emphasises language as a skill.	
<i>Grammar</i>	(a) Plenty of teaching material.	(a) Learning <i>about</i> a language, not practising it as a skill.
	(b) Fits present syllabus-examination framework.	(b) Usually based on faulty description of the language.
	(c) Commonly used.	(c) Especially unsuitable for young children.

For any teaching situation we must have guide-lines as to which of the above approaches (or combination of approaches) is the most suitable. Here are some guide-lines :—

(a) *Learners*.—We must know the abilities and interests of the students.

(b) *Language*.—We must have a sound, comparative working description of the two languages concerned (i.e., the known and the new language).

(c) *Educational system*.—The suggested method must be acceptable to teachers, students and educational authorities in at least some areas.

In short our decisions require a judicious mixture of linguistics, pedagogy and commonsense.

I think the above principles are a sufficient guide to establish a firm basis for our language teaching methods. In my next article I would like to

introduce certain linguistic concepts which will be important in choosing the procedure we will use in the classroom.

THE TEACHER LEADS

"The Teacher does not bid you enter the house of his wisdom, but rather leads you, to the threshold of your young mind. The vision of one man lends not its wings to another man."

—KAKLIL GIBRAN.

Adult, Not Juvenile Delinquency

[We publish below a significant letter written by a fifteen-year-old American Girl in answer to the question :

"What type of help would you most like to have?"

The Girl wrote the letter under the title "Please help us."

This letter was read by Mr. George Romney, Governor of Michigan, in the course of his address before the general conference of Seventh Day Adventists in Detroit, Michigan, recently. The Governor frankly stated that "the problem in America that is frequently described as juvenile delinquency is not primarily juvenile delinquency but adult debauchery and delinquency, and a pre-occupation of adults with activities other than the well-being of their own children....."

Here is "wisdom from the mouth of a baby", a lesson for parents of all countries. During these days of student unrest in our own country, parents must assume serious responsibility to guide their children and youth properly. They have to be good examples for their children to follow. There must need be strictness, discipline, strength of mind and moral force shown by parents and not in difference, callousness, looseness and lack of principles. Let's have no problem—parents please!

EDITOR.]

"Too many teen-agers are deprived of discipline. My mother, like the others, is looking for an easy way out. She is afraid to exert the authority she has as a mother. Instead of telling us, 'clean up your room!' she says, 'I don't see how you can stand your room that way. I would be embarrassed to let my friends see my room like that. I wonder what they tell their parents when they get home'. She continues this complaining, but it never does any good. She works, and she is often very tired; but instead of telling us, or ordering us, to have the house clean when she gets home, and enforcing it, she again whines and complains. Of course, We are sorry then, but what good does it do? We can't, or won't start cleaning just because she is complaining. Then she will complain even more."

"I, and all other teens, want and need discipline. Very few will dislike their parents because they punish a teen fairly and for good reason. Many more will dislike their parents because they don't punish them, because it seems as if they don't care. Of course, you will find very few teens who will jump the instant an order is given. They want their parents to prove they really care if it is done, and if the teens themselves have to do it. If the parents give up easily and do it themselves, the

children are disappointed with them and lose respect."

"Too often my mother will tell me or my sister to do something; and if we don't consent right away, she does it herself. We are so used to it now, we hardly ever do anything around the house. I don't know how often I have wished my parents would punish me for not doing something instead of complaining and nagging. I am so used, to their nagging now, I just stop listening. I've heard everything atleast once anyway."

"I have little respect for my parents now. They let me do anything I want. No one can respect someone with no authority at all, and I feel that few teens do respect their parents if they don't discipline them; and therefore they lose respect for all other grown ups and even themselves, because they feel as if they are not important enough to help or care about. It is from these teens that our selfish, immature adults come. You must work to teach people the necessity of discipline, so more parents won't be anguished by what are called wild, unruly teen-agers, the ones who give all teens a bad name; and so no more young adults will grow up unprepared for the cruel, cruel world."

H. S. S. LAWRENCE,

Director,

State Institute of Education, Madras.

"Real things"—"Things before words"—"Stimulators for learning".

Field Trips as Instructional Activities

In May 1966, I had the opportunity to visit educational institutions in Great Britain on the kind invitation of the British Council. While in London it was an exhilarating experience to visit a famous British Institution. North of New Oxford Street is a District known as Bloomsbury. It is the centre of books and learning in London. Its most important and huge building is the British museum. Here is the largest collection of antiquities in the world. Here I was able to see the examples of the art of primitive peoples all over the world and of the great ancient civilizations. I saw strange and curious things there from the preserved bodies (mummies) of ancient Egyptians to the beautiful Portland Vase. The most famous of the Museum's other treasures are the Elgin Marbles, the Rosetta Stone, and the Lindisfarne Gospels, an illuminated manuscript which was made in Northumbria in the seventh century. I saw too the large number of scholars studying in the great domed reading room of the British Museum Library which contains about 7,000,000 books of all kinds.

First form pupils:

•But I saw something else at the British Museum which had a deep impression on me which is the subject of this article. I saw a crowd of school boys in neat school uniform actively engaged in studying the various museum pieces. They were not just walking through in an indifferent way. They were seriously engaged and making notes. The teachers and the museum guides were busy answering their questions. Every boy had a questionnaire which he was filling up. I engaged myself in conversation with a teacher and found out that these boys were First Form pupils of Brays Grove Comprehensive School, Harlow, Essex. The boys were eleven years old and the trip was organised by the School History Department. I was struck by the seriousness of purpose and interest of the boys in learning about the collections in the Museum.

I give below the questionnaire which speaks for itself:—

First form visit to the British Museum :

"The museum has various galleries some of which you will need to spend a lot of time in, others in which you need to look around briefly. Those in which you **MUST** spend most of the time are....

1. The two Egyptian.....upper and lower.
- 2. The Assyrian.
3. The Duveen.
4. Greek and Roman Rooms.
5. Iron and Stone Age Rooms.

You have been given one school text-book between two and are to take care of it. When you go into a room turn to the text-book and read through the chapters which have to do with that room. You must then look for some of the objects which are shown in the book in the museum.

Clipped to the back of this are several sheets of paper on which you are to make sketches and to write a few notes. There are several coloured maps in the museum which show you clearly exactly where each room is! Ask those members of staff who are with you for help if you need it.

Egyptian gallery.—Look for the following:—

1. *The Rosetta Stone*—Make a drawing of it below in the space left.

Answer—

The three languages on the stone are—
(1)—(2)—(3)—Why is the **STONE** SO important in the Study of History?

2. Find the statues of THUTMOSE 111., *Rameses 11* and *Tutenkamen*. Draw one of them beneath.

Look for—

1. *Papyrus*. 2. *Canopic Jars*. 3. *Funeral Furniture*. 4. *Animal Headed Gods*. 5. *Mummies*.

3. Make a list of the names of some of the Egyptian rulers.....

4. What objects interested you most in the Egyptian Room? Make a list and draw on the blank sheet of paper any small object which you like.

5. *Assyrian Room*—

Find the stone which shows the lion hunt. Write below what you think about it.

What is the Black Obelisk?

Look at page 35 in the text book and try to find the statue of the Human-headed winged lion. For whom was it made?

Look also for the two bottom pictures in pages 36 and 37.

6. *Iron and Stone Age Rooms*—

Copy down ten things which you see in these rooms which you have learned about in School....

1.	2.	3.	4.	5.
6.	7.	8.	9.	10.

7. *Greek and Roman Rooms* —

Look for the—

64. 1. Statue head of Pericles to be seen on page

2. Greek vases like those on page 69.

3. Coins as on page 73.

4. The *Demeter of Cnidus*.

5. The *Head of Appollo*.

6. The *Greek Portland Vase*.

7. *Costumes*.

8. The *Elgin marbles* are part of the stone carvings from the temple called the *Parthenon* in Athens. You can see a picture of this temple on page 6 of the book. Go to the *Duveen gallery* for this. Find what these pictures show. Write down what a *Gentaur* was and draw a rough sketch.

Write down the names of Five Greek Gods.

1.	2.	3.	4.	5.
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Look at the Head of the stone horse and say what it was.

8. In the *Roman Gallery* look for—

1. Coins. 2. Armour. 3. Make a list, beneath, of any unusual objects which you see.

9. The next page is for you to write down anything you like about the visit and to draw use the spaces provided and hand in this paper in your next history lesson. If you wish to buy some cards then do so, keep them to put into your history books when you return.

Sketches, drawings and comments. The best of these Answer papers may win

1st prize of	£1	0	0	} (Value not cash.)
2nd prize of	..	..	10s.	0	0
3rd prize of	..	..	5s.	0	0

(for a prize to be given the work must be very good and clean.)

The special features.

There are some special features which we see in the above questionnaire—

(1) Planning had been made in advance by the teachers to make the trip useful.

(2) Proper guidance was given to the pupils through the questionnaire on what to see and where to spend a lot of time in at the Museum.

(3) School text books on the subject were distributed to the pupils to be taken to the museum for reference. Even page numbers in the text books are referred to in the questionnaire. Thus text book study was related to the study of the museum articles.

(4) Very interesting questions were given to pupils to answer.

(5) Pupils were also asked to make sketches of some articles they saw.

(6) Some incentives were provided. Three prizes were offered for the best of the answer papers with clean and very good sketches and comments.

An Instructional Activity.

Field-trips and excursions are good educational activities and we should organise them successfully in our schools, both primary and secondary. They are conducted in many schools but often perhaps in a very haphazard and unsuccessful manner. They should not end as picnics with no instructional value. Pupils should not be marched on to observe for themselves in a hurried fashion. The trip

should be planned with an educational bent of mind to make our children to observe scientifically, record and evaluate the objects seen. The trip should not become an outing for pleasure, recreation or fun without serving as an instructional activity. We are not against recreational trips but field-trips and excursions should also be organised as "formal instructional activities".

Environmental Laboratories.

In our country we have a wealth of museums, aquariums, zoos, factories, parks, exhibitions, industrial units and historic places, which should be used as effective teaching aids through field-trips. India is a magnificent country where children can learn a lot from the environment. The idea that education can happen only within the four walls of the class room is a myth. Some of the best learning experiences are gained by children not at school but outside of it, in the highways and by ways, in excursions and field-trips and in interaction with other children in an informal way. It is time therefore that these useful "laboratories" in the environment, are utilised by our teachers in a successful way through field-trips.

Short field-trips.

It does not mean that educational trips should always be for days together, covering long distances. If they are properly conceived as "formal instructional activities", short field-trips could be frequently undertaken in the local community for class room subjects. In the primary classes, especially, such short field-trips for one or two hours to the paddy fields, gardens, parks and the post-office are most rewarding if undertaken with a purpose. It is unfortunate that this useful form of instructional, educational activity is not freely undertaken in a majority of our schools as one would like it to be. The wealth of material in the local community has to be put to use for our children. The possibilities are explained clearly in the following words :—

"Some field-trips are shorter and more easily planned visits to factories, radio stations, news paper plants, wholesale and retail establishments, libraries and the like. Still others are simple to undertake and may be embarked on almost at the moment of conceiving the idea—the walk around the block to see nature and man getting ready for winter, the trip downstairs to see how the school building is heated, the journey to the neighbour's garden to see some spring plant coming through the earth, the walk through the park to gather

some needed specimens or a period of sitting on the steps outside the school to record the kinds of transportation used by the people passing by. The variations are almost endless."*

Real things.

Field-trips enable children to study real things. The maxim "Things before words" is well-known. Things seen, heard, touched, handled, collected and studied in their original location are better teaching aids and instructional materials than text-books and unreal talk. Real things in the environment become "sources of content and serve as stimulators for learning". Children like very much to collect specimens, both animate and inanimate—birds' nests, feathers, flowers, rocks, bones and fossils. There is realistic study when field-trips are undertaken and collections are brought to school for scrutiny. The process of the field-trip should not stop with the collection. Such collections, recordings and data should be studied in the class room and discussed. It may not be always possible to study real things at all times in their Social and Physical environments but the advantages are many. However, field-trips to museums and zoos are certainly good ways to study some real things by bringing children into contact with real things. Field trips are the most realistic means for the study of real things and processes in their actual environments.

Proper planning.

No field-trip can be successful unless it is planned in advance by teachers and pupils. Without adequate planning field-trips end up as picnic parties. They will not become instructional opportunities. No field-trip should be taken up just for the sake of a field-trip. There should be an objective. The objective has to arise out of class room teaching. In other words, a problem or a situation in a subject has to be tackled through a field-trip. Carlton W. H. Erickson puts it clearly :—

"Basic to the success of any field-trip is the valid reason for taking the trip; teachers would do well first to examine their own valid teaching purposes and then the pupil purpose (the problem or job to be done) that has been set up, and the solution for which the trip is being taken. Having a strong problem base for all field-trip operations constitutes the vital factor for success."†

The field-trip has to be planned and teachers and pupils together have to think of worthwhile experiences through the field-trip in order to solve their

* Maxine Dunfee and Helen Sagl, *Social Studies through Problem solving*, Holt, Rinehart and Winston Inc. 1966, P. 131.

† Carlton W. H. Erickson, *Fundamentals of teaching with Audio-visual technology*. The Macmillan Company, New York, 1965, p. 231.

problems. Direct and accurate information has to be gathered with a purpose. The objective can be realised only with well made plans. The problem dictates the kind of activities to be undertaken through the field-trip. Suggestions have to be given by teachers and pupils and evaluated. The matter has to be first studied using available books and other resource materials. This background experience or learning is first necessary before going on a field-trip. A vacant mind will not be of use in a field-trip. The basis for field activity should be first established in the class room. The foundation has to be first built up before the field-trip is undertaken.

Several administrative and organisational arrangements have to be made effectively before the field-trip. The full participation of the pupils should be enlisted in the arrangement of meals and transportation, getting the consent of the parents and procuring official approval. The co-operation of some parents may also be necessary. Of course elaborate arrangements are not needed in simple, short field-trips. It will be good if questionnaires are evolved and definite plans drawn up for the field-trip. Instructions have also to be drawn up for the proper conduct of the pupils, individually and in groups. Time-schedules stressing punctuality and regularity have to be drawn up. That the success of the field-trip depends upon the co-operation of every member has to be brought home to the pupils before departure. A well-planned field-trip will end in success and will become an educative, instructional activity.

On the Spot-observation and follow-up.

The pupils should be constantly aware of the purpose of the field-trip and the steps they should take to fulfil the purpose. They should be armed with questions to secure data from the real situation. They should be active in observation with their eyes and ears open. They should explore the neighbourhood or community properly and intelligently. They may work independently or in groups and gather adequate information. They should explore and discover by finding out things from teachers, guides and local personnel. The common attitude that they know everything will

not be of much help. The enquiring attitude should play its full part. The field should be looked at with an objective in mind. Nor are things to be heard and forgotten. Proper recording and sketching would be useful. Filling up of questionnaires prepared in advance would be advantageous.

Back at school the pupils should report their findings and collections, discuss, scrutinise and make generalisations. The rich experiences provided by the field-trip should lead to the building up of concepts, insights, attitudes and abilities. The findings have to be evaluated properly. Educational activities and follow-up work should take place thereafter. Learning experiences in the various subjects and languages should result from the field-trip. The pupils should have gained in experience, attitudes, knowledge, skills and observational techniques because of the field-trip. The field-trip has to be a rewarding experience to both teachers and pupils.

Other advantages.

Field-trips are a good change for pupils and teachers from the monotony of the class room. They bring in fresh air from the open-spaces. This is highly necessary. Apart from new ideas received from contact with real things, pupils learn from interacting with other pupils and groups. Social training in leadership, participation, self-help, goodwill and co-operation is imparted. This is an important part of the educational process. Field-trips, therefore, build up good traditions in the school. As Pounds and Garretson say :

“Field-trips to various places in the Community not only provide common group experiences but also contribute to class room morale.” ‡.

It is hoped that our teachers in Primary and Secondary Schools would organise more field-trips as instructional activities. The wealth of our great country, in the forests and fields, in the factories and industrial establishments, museums and zoos, forts and fortresses, caves and rock-cut temples, paintings and places should be intensively studied and appreciated by our children and youth—the citizens of tomorrow.

‡ Ralph L. Pounds and Robert L. Garretson, Principles of Modern Education, The Macmillan Company, New York, p. 61.

TRAINING IS EVERYTHING.

“Training is everything. The peach was once a bitter almond ; cauliflower is nothing but Cabbage with a College Education.”

—MARK TWAIN.

Towards cent per cent results in the Secondary School-Leaving Certificate Examination.

In the last issue of MADRAS EDUCATION we published the list of thirteen Secondary Schools which produced cent per cent results in the March 1966 S.S.L.C. Examination and the views of some of their Headmasters. We publish below the considered views of six more Headmasters. The Headmaster of Government High School, Dhavani, Nilgiris, has achieved cent per cent results consecutively for three years. All of them speak about “ninety-nine per cent perspiration”—regular tests, supervised studies, self-less work of teachers and parental co-operation. “Success was not achieved all on a sudden”, says one, “we had to strive for it!”. Madras Education wishes you all the best in 1967!

—EDITOR.

- (1) A. R. SOMASUNDARAM, M.A.B.T., *Headmaster, S.R.M.S. High School, Shanmughanathapuram, Ramanathapuram District.*

“The Tutorial Scheme.”

First of all, apart from regular classes, coaching classes had been conducted between 8-30 to 9-45 a.m. and 4-30 to 7-00 p.m. for those who had scored less than 45 per cent marks in any language or subject.

Secondly, the Tutorial scheme had been implemented in a successful manner. Under this scheme, a certain number of pupils had been assigned to each and every teacher whose duty was to pay a visit to the homes of their respective students in order to find out the amenities available for each and every one of them and their environments. After studying all their economic and social conditions, the teacher suggested the ways and means to improve their studies within the available facilities.

Thirdly, it was quite possible for the pupils to secure more marks by means of holding monthly tests and weekly exercises by which the respective pedagogues were able to check up whether the pupils had understood the lessons taught during each week and month, now and then. Even

though the questions were given to them a day earlier to go through the answers well under the scheme of weekly exercises, it was well and good for thorough preparation.

Fourthly, picnics and field trips were conducted and lessons were taught in the natural atmosphere. It had significant effect. Composition work, dictation, oral tests and correction by students were also very much useful.

Last, but not least, a good number of revision tests had been conducted within the school. Besides, many arrangements had been made for the pupils to come across various types of questions set by different Manrams and Sangams. The answer papers had been despatched to the respective Manrams and Sangams for valuation.

With teachers' whole-hearted co-operation and by dint of fruitful efforts made by the students all, the pupils who appeared for the above examinations during the year 1966, came out with flying colours.

- * * *
- (2) M. BILAVENDRAM, *Headmaster, Government Secondary School, Muthuramalingapuram, (via) Aruppukkottai.*

“Hearty Co-operation of Parents.”

The following schemes were sincerely followed by me and my colleagues with the hearty co-operation

of parents. The number of students being limited, we were able to attend to each and every pupil and know their mental and physical ability and their environment. We contacted the parents personally and through monthly progress reports. Success was not achieved all on a sudden, we had to strive for it:—

(a) *Group Work*.—As many groups of pupils as there were teachers were formed and each put under a teacher for a week. By rotation each group will go to the different teachers and receive guidance.

(b) *Supervised Study*.—Supervised study classes were conducted regularly during day and night. Special classes during holidays proved to be fruitful.

(c) *Backward pupils* were given special attention.

(d) *Tests*.—Weekly and monthly and special revision tests were held. The answer scripts were corrected and discussed then and there.

Question papers set by teachers of other schools and external valuation of these tests was also encouraged.

* * * *

(3) V. RATNAVELU, *Headmaster, Board High School, Periaputhur, Coimbatore District.*

“*Education is, not a one-way traffic.*”

The following steps were taken for securing 100 per cent results in the last S.S.L.C. Examination. The teachers and I inculcated in the minds of the pupils the habit of reading and writing. We prepared the pupils to acquire a thorough knowledge of the subjects. From the beginning we found out “the below average” pupils by a series of weekly tests and special tests on the subjects taught by us. Then every subject teacher was entrusted with the care of some “below average” pupils. The subject teacher had to see that the pupils entrusted to his care come out successful in his particular subject by conducting special classes on holidays. Many teachers in many schools satisfy themselves by finishing the lessons only without making the pupils read and write. In short, the pupils are not given the chance of expression and writing the answers. Education is not a one-way traffic. The Educator and the pupil must converse with each other. If the teachers work selflessly and if they conduct special classes and devote individual attention to the pupils in reading and writing grand success will be achieved.

* * * *

(4) K. SUBRAMANIAM, *Headmaster, V.G. High School, Omalur (Salem District).*

“*Like a Boarding Home.*”

We conduct special supervised study classes out of school hours and make the pupils stay in the school like a boarding home. The Headmaster stays with the pupils throughout, makes them write answers to questions and corrects the mistakes committed by the pupils in their presence by pointing out the nature of mistakes and telling them not to commit such mistakes again.

Monthly tests, terminal tests and revision tests are regularly held. The scripts are corrected (not valued) and handed over to the pupils with instructions to go through the mistakes pointed out therein.

The co-operation of the parents is also sought so that the pupils read when they are at home during the holidays.

* * * *

(5) K. H. RAMAN, *Headmaster, Government High School, Dhavani (Nilgiris).*

“*Esprit-de-corps*”

1. Sincere and hard work right earnestly from the beginning of the school year had rewarded us consecutively for three years cent per cent results. In fact our classes for S.S.L.C. commence soon after the announcement of promotion, i.e., from the 2nd week of May.

2. Monthly tests are conducted till December apart from the quarterly and half-yearly examinations. Tests and Examinations are given equal importance. After December, i.e., during the short term, tests are conducted practically every day in one subject or other within limited portions. Before the pupils sit for S.S.L.C. Public Examinations, they would have written at least 10 tests in each subject covering the entire portions. Besides these tests and examinations, pupils are made to appear for Manavar Manram Examinations in Tamil and other Manram Examinations in all the subjects. This gives an opportunity to all the pupils to revise the entire portions and be thorough in them. Such of the pupils whose performance is not satisfactory would be attended to individually and made to work hard to achieve success.

3. Absentees in our school are very rare. If the pupils absent themselves for no good cause the parents of such pupils will be requested to meet the Headmaster to make them know of things and to avoid such absence subsequently.

4. Supervised study is conducted regularly. Each day is set apart for each subject teacher in respect of XI Standard and the individual teacher is expected to pick up the weak students in his subject in order to devote much attention on them.

5. Home assignment is given atleast half an hour in each subject each day. Handwriting and dictation is a part of normal work and is being done regularly. Since our school is in a rural area, this assignment cultivates in pupils a habit for regular work.

Again during Mid-term and Christmas Holidays vacation assignments are given to keep the pupils engaged for atleast an average of four hours per day. Further the assignments are looked into and reviewed after the reopening. The defaulters are punished accordingly.

6. Above all, there is a homely atmosphere. cordial relationship and sincere co-operation among all the teachers and this helps the Headmaster to run the institution smoothly and to maintain the discipline in the school.

As stated earlier, the esprit-de-corps existing between the teacher and the taught, the cordial relationship we have cultivated with the parents which has brought many an erring pupil to success and last but not least, the crusading spirit with which teachers are straining every nerve to see that nobody lags behind has paved the way for our crowning success.

* * * *

R. KANTHIMATHINATHAN, *Headmaster, Government Secondary School, Burkitmanagaram.*

"Each one Teach one"

The pupils of eleventh standard of our school were frequently encouraged to attend the class

regularly and as a result the attendance in the eleventh standard was fairly satisfactory and it reflected on the pupils progress. If any pupil happened to go on leave, he had to obtain permission either from the Headmaster or from the Classmaster. If a pupil produced sick leave, the next day when he came to the school, he should necessarily bring his parent or guardian in support of his leave letter, submitted previously either by post or through a messenger.

Pupils who were educationally backward were paid special attention. Special coaching brought up the backward pupils and they began to show progress in studies.

The weekly and monthly tests gave sufficient room for us to know in which subject a particular pupil was weak. After ascertaining the weakness of a pupil, he was individually attended to.

The Masters handling subjects for the eleventh standard often met and discussed about the progress of pupils.

The pupils were also advised and were made to feel the necessity of shouldering the responsibility for the betterment of their later life.

The supervised study both in the morning and evening was also regularly held. The Class Master and the subject masters acted as supervisors so as to be helpful to the pupils. Especially pupils who failed to study at home, made use of the supervised study and tried to improve.

There were groups in the class. Each group had a clever pupil as its leader. The group leaders were to see that other pupils regularly did their home tasks. "Each one teach one" was the ideal of every group. The group system imbibed competitive spirit in them and they began to show better progress.

THE UNDISCOVERED OCEAN.

"I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the seashore, diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me."

—SIR ISSAC NEWTON.

S. NARASIMHAN,
*Headmaster,
M.C.T. Muthiah Chettiar
High School, Madras.*

"Apprenticeship under experienced Teachers"—"To keep alight the torch"—"a sense of dedication"—"professionally and culturally developed teachers".

My Work as a Teacher

I entered the teaching profession 31 years ago ; to be exact—on the 1st of August 1935. I first worked in the Raja's High School, Ramanathapuram for a decade. I came under the influence of late Sri T. S. Veeraraghavachari, a great headmaster. He was an effective leader and maintained his dignity under all conditions. He was a master of English and Sanskrit. Even as a teacher, I attended some of his English classes and watched with admiration how he developed a sense of English among his pupils by his thorough preparation, brilliant exposition and effective classroom techniques. He had a passion for work. My association with him has been a source of inspiration to me. From this I venture to say that apprenticeship under experienced teachers for a year or two will help newly-trained teachers to gain competence and do full justice to their work later on. My colleagues also were men of parts and they widened my horizons. Thanks to their inspiration, I have enjoyed my work all along.

From Ramanathapuram, I went to Tirupur, a growing town in the Coimbatore district. For ten years I worked as Headmaster of Sri K. Subramania Chettiar Municipal High School. My school had on its rolls a large number of pupils belonging to the backward classes. We tried hard to instil in them habits of discipline and study and their response was good. My colleagues and I introduced different types of activities which enabled pupils to express themselves creatively in Arts, Crafts and Practical work. Our brilliant results in the final examinations, our powerful dramas, our instructive exhibitions, and our striking public meetings, excursions to distant places like Bombay and other social activities, pleased the public. And when we approached the public for help in building up our school the well-to-do citizens of Tirupur vied with one another in donating large sums of money. I should like therefore to emphasize here that the community is ever ready to support schools which play their part worthily and which strive to promote good citizenship. Not all schools are properly equipped. Some lack even

the basic necessities like a laboratory, a library, a protected water supply, good furniture, etc. The Government cannot meet the demands of all schools at the same time. So community participation in education is a vital necessity. It also helps schools to become mirrors of the community.

From Tirupur I came to Madras in 1956. Madras is an intellectual city and I meet greatness often. It has been my good fortune to witness a phenomenal extension of opportunities in education since 1947. Education is spreading by leaps and bounds in our State, thanks to a liberal allotment of 22 per cent of the State revenue for education, the introduction of free education for children up to the XI Standard, the provision of free mid-day meals for poor pupils in all primary schools and several high schools, the dedicated service of 1.25 lakhs of teachers and above all the realisation of the Government and the people that education is a basic activity without which life cannot fulfil its gracious purpose. But educating youngsters for democratic citizenship is a perpetual challenge. Since 1947 many changes have come over our schools. There is a terrible pressure for admission not only in urban schools but in rural schools also. There is also dearth of well-qualified teachers. Far-reaching advances have been made in the fields of Science and Technology and they have given a new direction and a new urgency to our educational problems. Therefore the teacher holds the key to the future progress of the young men and women of India. He has to reconcile tradition and innovation ; science and religion ; economic development and social justice. What he stands for is of paramount importance in these days of doubt and uncertainty when young men and women all over the world are losing their faith and turning to new-fangled ideas. It is he who maintains a respect for things of the spirit and tries to keep alight the torch that has been entrusted to him. How can the teacher fulfil himself unless he is imbued with a sense of dedication ? Departments cannot light candles in his mind. It is something which he must do himself whether he catches the divine spark from a great book or a good

teacher or from a man of God or from the deep sources of philosophy and religion. There is a vicious circle troubling education today. Teachers cannot do their best unless their conditions of work improve and they cannot get really what is due to them unless they win public recognition by their efficiency and wisdom. We, teachers, can take the lead in cutting the circle and making schools more educative and more attractive.

I have faith in children. In this I have been strengthened by the immortal words of Shakespeare about the potentialities of man for achieving great things. In Hamlet he says "What a piece of work is man! how noble in reason! how infinite in faculty! in form and moving, how expressive and admirable! in action, how like an Angel! in apprehension, how like a God! the beauty of the world! the paragon of animals." Emphasising the value of education, Pandit Motilal Nehru wrote to his son Jawaharlal as follows years ago after leaving him at the age of 16 in the Public School at Harrow: "Remember that in you we are leaving behind the dearest treasure we have in the world. It is so hard for us to part from you. Yet we do so for your own good. I can earn in a year enough to support you for life. Is it wise to leave you a fortune in gold without making a real man of you? Truly, I have started the Nehru family on the road to fame. I expect you, my dear son, to cover a good part of the road and carve your name on the tablets of history. Be perfect in body and mind. It is the only return we seek from you. I will, therefore say farewell, mine own darling boy. Take good care of yourself. In so doing, you will be taking care of your father and mother". Let this passage open the eyes of all educators to the value of good education to the children of our land.

*A word about student indiscipline will not be out of place. To me it is essentially a problem of schools and colleges and parents and not a law and order question. To enable pupils to live and act responsibly self-government in schools may be encouraged. Besides, work experience may prove beneficial to work-hungry boys. Indeed we have to imbue our national character with the spirit of work—work into which one can throw oneself with one's heart and soul. The Report of the Education Commission has also, stressed the need for the introduction of work experience including manual work, productive work, and social service as integral parts of general education at more or less all levels of education. Further a sense of values has to be fostered through participation in games,

practical work and social service camps. A sound physical culture (which is not the same as athlete training) should be made accessible along with mental culture to all classes of students.

Parents think that teachers are specialists in education which indeed to some extent they are and that just as, if a child is ill, a doctor is called and his instructions are simply followed, the responsibility of the parent ceases when the child is sent to school. But of course that is not the case. The school is not a substitute for the home and the boy or girl is educated both by the home and by the school, the home probably being the more vital formative factor. For that it is essential that every parent should take a far more lively interest in the work of the school. He must exercise a constant vigil over the movements of his boy, his associations and the formation of his habits. It will pay ample dividends to him if he is in frequent touch with the educators and co-operates with them in moulding the boy aright. The parent should set an example at home to instil in the mind of his boy love and reverence for religion, so that, in due course, he may understand spiritual and ethical values.

Student unrest is not due to a perverted nature but the misdirection of strong impulses which, deprived of their normal outlet, are driven to seek satisfaction in irregular and anti-social conduct. The remedy sanctioned by psychology is not further repression but sublimation. This is possible through self-government and self-expression in schools.

Before I conclude this article, I should like to state that education requires teachers who are professionally and culturally developed. Every child deserves the best teacher. To attract talented and devoted young men to the teaching profession, it is necessary to up-grade the remuneration of teachers substantially and improve the conditions of work in educational institutions. The teacher's cause is the nation's cause.

Education must provide equality of opportunity for all. Equality of opportunity means that every child should be given the chance to develop fully all his abilities under the best conditions possible. This implies not only appropriate instruction in the basic skills but the provision of a wide variety of educational programmes suited to differing abilities, aptitudes and interests of the children. Vocationalisation of secondary education may conduce to economic growth and harmony in schools.

Improving Our Teachers' Association Centres

There are over 1,600 Teachers' Association Centres in Madras State. Teachers' Association Centres for Primary School Teachers have to function effectively for teacher growth. They should really be centres for teacher education in service. The Deputy Inspector of Schools is the Ex-Officio President of Teachers' Associations and he has to attend all the meetings as far as possible.

The Madras Educational Inspection Code has long ago stated that "the meetings shall be regarded as unique opportunities of meeting the teachers and giving them guidance both directly and by means of demonstration lessons and demonstration activities..... Demonstration of Craft activities and exhibition of both teaching and pupils' handicraft products should be arranged at these meetings as often as possible, the Inspecting Officer in the course of his tours giving the necessary instructions to the concerned teachers regarding outstandingly good instances of potential exhibits and pupils' activities which are worthy of being displayed at Teachers' Association meetings".

Teachers' Associations have thus to be very constructive and useful. At the Four-week In-service Course for 50 Deputy Inspectors of Schools held at the State Institute of Education during November-December 1966 this matter was discussed and recommendations were made. We are happy to publish this report and commend it for the active consideration of teachers as well as Inspecting Officers. It is hoped that our Teachers' Associations will be reorganised in such a way that they function vitally for bringing about the qualitative improvement of school education from all points of view.

—EDITOR

Teachers' Associations are organised under Departmental aegis for the professional development of teachers. So far a routine type of work has been implemented relating to the professional growth of teachers. Steps have to be taken to revitalise the Teachers' Association Centres so as to enable them to function as effective In-service Training Centres for the benefit of teachers in primary schools and improvement of education.

Size of the Association.

The Teachers' Association Centre may normally consist of not more than 75 teachers and it would be advantageous if the centre has a minimum of 40 teachers. The maximum walking distance from the schools to the centre should not be more than five miles.

Hours of Session.

This group is of the opinion that the centre may have only one session of not less than three

hours duration either in the forenoon or in the afternoon.

Attendance.

Attendance of teachers at the Teachers' Association meetings is compulsory. No teacher should come late and if one comes late, leave has to be applied for. Two days casual leave is to be debited for cases of unauthorised absence. If teachers absent themselves consecutively for 3 meetings, disciplinary action like censure, reduction in rank, stoppage of increment, etc., may be taken.

Office-bearers.

Election of office-bearers may be conducted for every school year. The office-bearers will include the following functionaries: (i) Secretary, (ii) Assistant Secretary, (iii) Treasurer and (iv) Executive Committee members with representation for all managements.

Funds of the Association.

The funds will consist of the following : (i) Annual subscription raised from members at the rate of 50 paise per annum as at present. (ii) Voluntary donations and contributions from the public. (iii) Sale proceeds realised from the sale of old journals, news papers, etc., belonging to the centre.

It is also desirable that Government sanctions a matching grant every year with reference to the subscriptions realised so that the fund could be utilised for the purchase of reference books and library books.

Use of Funds.

This may be governed according to the instructions of the Department issued from time to time.

Objectives of Teachers' Association Centres.

The following are the objectives of Teachers' Association Centres :—

(1) For improving the professional competence of teachers, curriculum, syllabus, time-table, teaching methods, demonstration lessons, teaching aids, etc.

(2) Providing an opportunity for the Departmental Officers to meet all teachers once a month and know their educational problems and needs.

(3) Enabling the Inspecting Officers to assess the work and programmes of schools. Necessary suggestions may be given to teachers, if they are not able to carry out the monthly approved programmes.

(4) For circulating all Departmental Orders, Government Orders, circulars and other information.

(5) For improving general knowledge of teachers by arranging study of books, lectures and discussions.

(6) To organise refresher courses.

(7) Chalking out future plans, celebrations, play festivals and conferences.

(8) Carrying out Action Research Projects.

(9) For giving demonstration and training in handicrafts.

(10) Eliciting views of teachers on new syllabus and schemes introduced from time to time by the Department.

(11) Teachers may be encouraged to engage themselves in voluntary social services and other activities like social work during epidemic time,

festivals and fairs without detriment to their legitimate work.

Organisation.

(i) The programme of work for every meeting should necessarily include the following :—

Item.	Approximate time in minutes.
1 Prayer	2
2 Reading of the minutes of the previous meeting.	5
3 President's Introductory speech ..	15
4 Demonstration lesson	30
5 Literary Talk from Kural, etc. ..	15
6 Book Review	15
7 Essay Reading	15
8 Demonstration of practical work ..	15
9 Digest of Educational News ..	15
10 Educational Quiz Programme ..	10
11 Reading of circulars, Government Orders, etc.	10
12 President's concluding remarks ..	30
13 Vote of thanks	2
14 National Anthem	1
	<hr/> 180

(ii) (a) In every Panchayat Union Office, a separate hall for teachers may be constructed for locating a well-equipped library with valuable reference books, teaching aids, etc., for consultation by teachers on holidays and outside working hours.

(b) All trained teachers appointed on a regular capacity may be permitted to enrol themselves as members of the branch library of the L.L.A. without payment of Caution Deposits so as to promote the reading habit among the teachers. 'Book review' may be included as one of the items in the programme for the monthly meeting.

(c) Study circles on subject basis may be formed to promote self-study, to adopt improved techniques of teaching and for discussion of problems of children.

(d) Each Teachers' Association Centre can build a library of its own by purchasing books from its own funds as well as the matching grant from Government.

(iii) Refresher courses may be organised during holidays and teachers who are willing may be

admitted to the course. Resource personnel may be drawn from High Schools, Training Schools, Colleges and the Inspectorate. Conveyance charges for the resource personnel may be met from the association funds.

(iv) Practical demonstrations and training in variety of crafts through skilled teachers and local craftsman may be arranged.

(v) At least one long educational tour may be arranged in a year seeking aid from Government. Railway concessions may also be availed of.

(vi) Coaching classes for teachers to improve their general and professional qualifications may be organised.

(vii) Special talks by experts and eminent persons in different fields of activities like health, education, agriculture, etc., may be arranged periodically.

(viii) With regard to Action Research Projects, a few teachers in each Teachers' Association Centre may be encouraged to take up projects like causes for irregular attendance, stagnation, wastage, problems of difficult children, etc., and to work upon the same with the guidance of the Inspecting Officers.

This group feels that the instructions issued by the Department from time to time may be incorporated in the above suggestions and communicated to all the Inspecting Officers.

THE THRILL IN TEACHING.

"When children learn to use the dictionary, can explain what fractions and decimals are, enjoy (surprising you) with an interpretation of a Scientific discovery or historical event, any bit of accomplishment particularly from children whom you least expect to show it, is the thrill above all others in teaching."

—WILLIAM ABRAHAM—*"A Hand Book for Teachers"*.

DESIRE TO LEARN.

"A teacher who is attempting to teach without inspiring the pupil with a desire to learn is hammering on cold iron."

—HORACE MANN.

S. DEVANAYAGAM,
Headmaster,
Government High School,
Kilpennathur, North Arcot.

The Parent feels that the school is
interested in his boy.

Two Good Practices at My School

1. Night Study Supervision.

Government High School, Kilpennathur, is a Rural High School. Though the strength of the school is more than 800, many pupils are coming from the villages. Majority of the pupils are coming from the surrounding villages which are at least 3 miles away from the High School village. In certain cases children have to walk 4 or 5 miles to reach the school village. So the majority of the children have to leave home at least by 7.30 a.m. to reach the school village in time. Then after school, they have to walk at least 3 miles and they may reach home by 6.00 or 6.30 p.m.; in certain cases even after 6.30 p.m. By the time they reach home, they become very tired and so after their night meal, they simply go to bed. The children cannot be blamed for this, because they are physically tired and they are not in a position to read and write. Even in the morning they do not have enough time to study as they have to leave home by 7.00 or 7.30 a.m. Further many pupils have another difficulty. They do not have proper 'lighting' facility. The poor parents cannot afford to give them proper facilities to read and write. Moreover there is no separate room for reading in every house. To put it in a nut-shell the home atmosphere is not conducive for reading. The parents cannot be blamed for this. The low standard of living is the main reason for this.

But the pupils have not been given the opportunity to study or to revise the lessons that are done in the school, in their homes. This marred the progress of the pupils to a greater extent. The little work that is done in the school is undone outside the school. The Headmaster and the teachers of the Government High School at Kilpennathur thought over this problem. They discussed seriously to find out a solution for this important problem. Their main aim was to help and to be useful to the children. After a long and serious discussion they decided to have *night study supervision work only for the pupils reading in Standard XI*. The

pupils who do not have proper facilities at home are asked to stay in the school itself. Their study hour is arranged as per the schedule given below:—

SCHEDULE.

6-30 p.m. to 8.00 p.m.—Study hours.

8-00 p.m. to 8-45 p.m.—Free time (night meals, etc.).

8-45 p.m. to 10-00 p.m.—Study hours.

10-00 p.m.—Bed.

4-30 a.m. to 6-00 a.m.—Study hours.

A teacher is asked to supervise the study of the pupils. Actually no instruction is given to the pupils. The teacher simply supervises the pupils. The mere presence of the teacher makes the pupils use their study hours properly. The scheme is explained below:—

The pupils will take their seats in the hall allotted for that purpose. They can study the lessons they like. The teacher is with them from 6-30 p.m. to 8-00 p.m. At about 8-00 O'clock he allows them to take their night meal. They have a free time of about 45 minutes. Again they have to sit for study at 8-45 p.m. to 10-00 p.m. After 10-00 p.m. they are asked to go to bed. They take their bed in the school itself. Some teachers sleep in the school only for those particular nights. Then again the teacher goes to the school in the early morning at about 4-00 a.m. and asks the pupils to get up from their bed and to read. Just in five or ten minutes time they get up and begin to read. The regular study commences from 4-30 a.m. The teacher is with them till 6-00 a.m. and after 6 a.m. the pupils are asked to use the time usefully as they like. Parents bring food for the pupils who stay in the school. It is the responsibility of the parents to feed the boys and it is the responsibility of the teachers to see that the pupils bestow their attention towards their studies. In order to have systematic supervision a programme is drawn up for every month (a copy is also enclosed herewith).

The advantages of the scheme—

- (i) The boys have more time to read.
- (ii) Their time is not wasted in walking the distance.
- (iii) They have better facility in the school than at home.
- (iv) They cannot think of cheating as they are under the control of an educated person. In the house they can very easily overrule their illiterate parents.
- (v) They are kept in a better atmosphere.
- (vi) They have the opportunity of meeting their teachers *often* and clear their doubts then and there, if they wish to do so.
- (vii) The parent feels that the school is interested in his boy.

Some may say it is very difficult to supervise every day. But it is not a difficult job for us. There are more than 30 teachers in the school. So a teacher gets a chance once in a month and the teachers of this school are doing it willingly and without any remuneration. For this extra work, pupils do not pay anything extra. Our chief aim is that, the children entrusted to our care should acquire knowledge.

This scheme is in vogue for the last five years in this school. I can very boldly say that the scheme has helped us to produce better results also. It is a fine example to show parent-teacher co-operation. The parents feel that the teachers are there for their pupils and not for merely getting their salary. The scheme has raised the prestige and dignity of the school.

2. Meeting the parents and the pupils in their homes.

The aforesaid scheme is only for pupils of Standard XI and it is not possible to help the other Standard boys in that way. Yet, we felt that we must do something for the other pupils also. So we thought of paying surprise visits to the villages to see whether the children are studying at home. We go there not to criticise the children but to advise them to read at home and just to see them at home. We also meet the parents and tell them about the progress of their children. This is not compulsory for all the teachers. Those who are willing can accompany the headmaster. The headmaster and teachers who are willing, go to the villages on cycles and meet the pupils and parents during nights (between 6 p.m. and 8 p.m.).

Personally I feel that the scheme will have great effect on the pupils and parents but the scheme is only in the experimental stage.

GOVERNMENT HIGH SCHOOL, KILPENNATHUR.

SPECIAL SUPERVISED STUDY SCHEME FOR THE S.S.L.C. CLASS.

For the months of November and December 1966.

Serial number and name of teacher.	Date.	Time.	
		From	To
1 Sri K. Mohandas — —	17th November 1966 ..	6-30 p.m.	8-00 p.m.
	18th November 1966 ..	8-45 p.m.	10-00 p.m.
2 Sri A. Sathyamurthy — —	18th November 1966 ..	4-00 a.m.	6-00 a.m.
	19th November 1966 ..	6-30 p.m.	8-00 p.m.
3 Sri K. Krishnamurthy — ..	19th November 1966 ..	8-45 p.m.	10-00 p.m.
	20th November 1966 ..	4-00 a.m.	6-00 a.m.
4 Sri A. Balsundaram — —	20th November 1966 ..	6-30 p.m.	8-00 p.m.
	21st November 1966 ..	8-45 p.m.	10-00 p.m.
5 Sri C. Ramasamy — —	21st November 1966 ..	4-00 a.m.	6-00 a.m.
	22nd November 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
		4-00 a.m.	6-00 a.m.

GOVERNMENT HIGH SCHOOL, KILPENNATHUR—cont.

SPECIAL SUPERVISED STUDY SCHEME FOR THE S.S.L.C. CLASS—cont.

For the months of November and December 1966—cont.

Serial number and name of teacher.			Date.	Time.	
				From	To
6 Sri K. Iyyasamy .. ..	..	..	22nd November 1966 .	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			23rd November 1966 ..	4.00 a.m.	6.00 a.m.
7 Sri R. Venkoba Rao .. ..	..	..	23rd November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			24th November 1966 ..	4.00 a.m.	6.00 a.m.
8 Sri C. Doraisamy .. ..	..	..	24th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 a.m.
			25th November 1966 ..	4.00 a.m.	6.00 a.m.
9 Sri T. Annamalai ... ..	...	..	25th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			26th November 1966 ..	4.00 a.m.	6.00 a.m.
10 Sri P. Venu Udayar ... ..	...	...	26th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			27th November 1966 ..	4.00 a.m.	6.00 a.m.
11 Sri G. Venkatachalam ... ..	...	...	27th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			28th November 1966 ..	4.00 a.m.	6.00 a.m.
12 Sri M. Jayanthi Rao .. ..	..	...	28th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			29th November 1966 ..	4.00 a.m.	6.00 a.m.
13 Sri V. Govindasamy .. ..	..	...	29th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			30th November 1966 ..	4.00 a.m.	6.00 a.m.
14 Sri K. Govindarajan .. ..	..	..	30th November 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			1st December 1966 ..	4.00 a.m.	6.00 a.m.
15 Sri M. Swaminathan .. ..	..	..	1st December 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			2nd December 1966 ..	4.00 a.m.	6.00 a.m.
16 Sri T. Rajan .. ..	..	...	2nd December 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			3rd December 1966 ..	4.00 a.m.	6.00 a.m.
17 Sri G. Dandapani ... ..	...	..	3rd December 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			4th December 1966 ..	4.00 a.m.	6.00 a.m.
18 Sri K. Munian .. ..	..	...	4th December 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			5th December 1966 ..	4.00 a.m.	6.00 a.m.
19 Sri M. B. Sardar Singh .. ..	..	..	5th December 1966 ..	6.30 p.m.	8.00 p.m.
				8.45 p.m.	10.00 p.m.
			6th December 1966 ..	4.00 a.m.	6.00 a.m.

GOVERNMENT HIGH SCHOOL, KILPENNATHUR—cont.

SPECIAL SUPERVISED STUDY SCHEME FOR THE S.S.L.C. CLASS—cont.

For the months of November and December 1966.

Serial number and name of teacher.	Date.	Time.	
		From	To
20 Sri S. Jayaraman	6th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
21 Sri M. Subramanian	7th December 1966 ..	4-00 a.m.	6-00 a.m.
22 Sri C. A. Selvaraj	7th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
23 Sri D. Shanmugam	8th December 1966 ..	4-00 a.m.	6-00 a.m.
24 Sri M. Perumal	8th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
25 Sri K. Mannuveerasamy ..	9th December 1966 ..	4-00 a.m.	6-00 a.m.
26 Sri V. Pandurangan	9th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
	10th December 1966 ..	4-00 a.m.	6-00 a.m.
	10th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
	11th December 1966 ..	4-00 a.m.	6-00 a.m.
	11th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
	12th December 1966 ..	4-00 a.m.	6-00 a.m.
	12th December 1966 ..	6-30 p.m.	8-00 p.m.
		8-45 p.m.	10-00 p.m.
	13th December 1966 ..	4-00 a.m.	6-00 a.m.

General Supervision : “ Headmaster ”.

PUNCTUALITY.

“ Unfaithfulness in the keeping of an appointment is an act of clear dishonesty
—You may as well borrow a person’s money as his time.”

—HORACE MANN.

“ I have always been a quarter of an hour before my time and it has made
a man of me.”

—NELSON.

Gossip Town

[Here is a very interesting poem—a rare and beautiful piece. Unfortunately the authorship is unknown. Apart from the subject-matter of the poem there is beauty in the words and phrases. As one reads the poem line by line one is struck by the reality of ideas expressed by the Poet. The Poet ably enchants us with a clear picture of Gossip Town, Falsehood Bay, Dame Rumour, Idlers' Train, Thoughtless Road, Valley of Vicious Talk, Tunnel of Hate, Add-to Bridge, "They-say Street", "I've Heard Walk", "Tell-tale Park", Madam Suspicious Remark, "Don't-care Street", "Sland'rous Row", and "Jealousy's Bow". There is a good lesson to learn from this poem. It was Jonathan Swift who said "What some invent the rest enlarge"! Teachers may well use this poem to teach our children and youth to avoid gossip, rumour and foul whisperings.]

—EDITOR.

GOSSIP TOWN

Have you ever heard of Gossip Town,
On the shore of Falsehood Bay,
Where old Dame Rumour, with a rustling gown,
Is going the livelong day ?

It is not far to Gossip Town,
For the people who want to go ;
The Idlers' Train will take you down
In just an hour or so.

The Thoughtless Road is a popular route
And most folks start that way,
And very soon if you don't look out
You will land in Falsehood Bay.

You glide through the Valley of Vicious Talk
And into the Tunnel of Hate,
Then crossing Add-to Bridge you walk,
Right into the City Gate.

The Principal street is called "They say",
And "I've Heard" is the public walk,
And the breezes that blow from Falsehood Bay
Are laden with "Don't you talk."

In the midst of the town is Tell-tale Park,
You're never quite safe while there,
It's owner, Madam Suspicious Remark,
Lives, in the street "Don't care."

Just back of the park is Sland'rous Row,
'Twas there that Good Name died,
Pierced by a shaft from Jealousy's Bow,
In the hands of Envious Pride.

From Gossip Town, peace long since fled,
But trouble and care and woe,
And sorrow and care you'll meet instead,
If to Gossip Town you go.

CARELESSNESS.

"For want of a nail the shoe was lost,
For want of a shoe the horse was lost,
For want of a horse the rider was lost,
For want of a rider the battle was lost,
For want of a battle the kingdom was lost—
And all for want of a horse-shoe nail."

—FRANKLIN—(*Poor Richard's Almanac.*)

NO MEANINGLESS LIFE.

"The man who regards his own life and that of his fellow creatures as meaningless is not merely unfortunate but almost disqualified for life."

—ALBERT EINSTEIN—*Theoretical Physicist.*

PLANNING BETTER PRIMARY SCHOOLS

Recipients of State Awards Speak

[MADRAS EDUCATION is happy to publish below the list of Primary School Teachers selected for State Award for 1965-66. The award consists of a certificate, a medal and a prize to the value of Rs. 200. We congratulate all these happy teachers and wish them many more years of useful work.

We were not interested just in publishing the names of these teachers. MADRAS EDUCATION wanted to know the efforts they took to improve the quality of education and to raise the tone and efficiency of the primary schools where they serve. The practices they have adopted should be made known to other teachers in the State. Hence the Editor addressed a few of them and the views of nine teachers are published in this issue.

It is clear that all these teachers have gained success by dint of hard work. They have improved their schools considerably through parental co-operation, staff participation, supervised studies, regular tests, garden work, mid-day meals, school improvement schemes and constructive activities for children. May all our teachers follow their noble example and experience !]

—EDITOR.

- (1) P. KOIL PILLAI,
Assistant Teacher,
K.V.S. Higher Elementary School,
Virudhunagar.

" Being a Scout Master. "

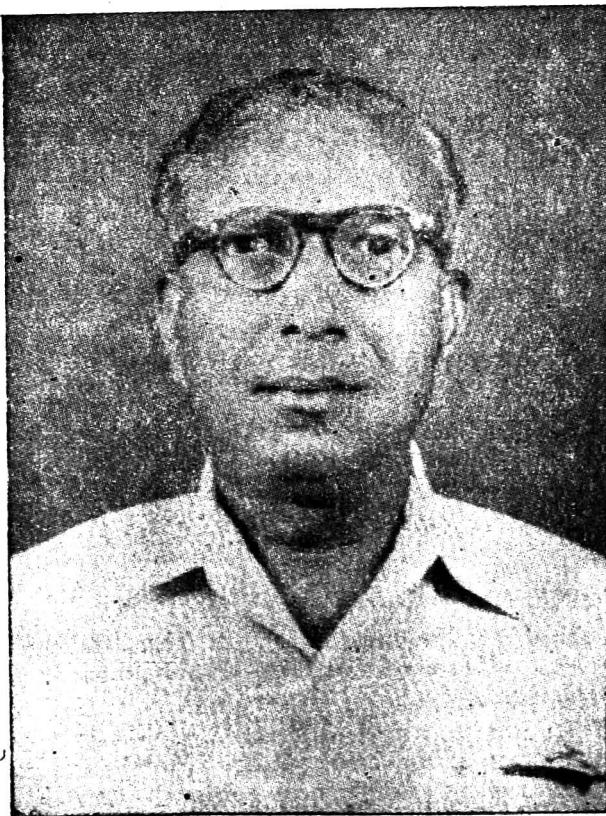
In our school supervised study for backward boys is conducted every day from 1 p.m. to 2 p.m. I am shouldering the sole responsibility of the general supervision of the whole work.

For many years I am giving moral instruction to our boys in the morning assembly.

More than two hundred boys of our school are having mid-day meals under my supervision and control.

I conducted a play festival last year with more than thousand children belonging to all the twenty-six elementary schools of our town. It was well appreciated by the public as well as the educational authorities. I conducted similar festivals twice before this.

I, being a scout master, render valuable service to the public every year during the Mariamman and Pongal festivals with our school scout boys.



(2) S. RAJA RAO,

*Headmaster,
Aided Mufide Am Elementary School,
Nellikollai, Vaniambadi, North Arcot District.*

"I insist upon punctuality."

I insist upon punctuality and regularity among the teachers and pupils. Wastage and stagnation are always thought over and are minimised as far as possible. Individual attention is paid to the pupils who are below the average. Regular supervision of the classes is done to improve the instruction side. As long absentees are a potent cause of stagnation and wastage, diaries are maintained by teachers in which they take the signatures of the parents of absentees with reasons of absence of their sons. Co-operation of the assistants is always sought for running the school in a smooth manner. The parents are always given hearty welcome and meetings between parents and teachers are arranged to discuss ways and means to improve the tone and efficiency of the institution.

(3) SISTER M. SEBBA,

*Headmistress,
Bethlehem Senior Basic School,
Ootacamund.*

"School kept clean and neat."



1. Good co-operation of the staff through encouragement and personally stimulating them and visiting them in their houses at critical times.

2. Visits to homes of children and hospital (Weekly).

3. Free clothes, books and slates to the very poor.

4. Monthly tests with Progress Report, giving badges, prizes and sweets to Grades I and II.

5. Garden work greatly encouraged by giving part of the produce to the poor ones.

6. School kept clean and neat with attractive charts and pictures.

7. Christmas gifts every year to all irrespective of creed.

8. A new feature for the past 5 years is an "Educational sale" where toys and eatables are bought with marks.

9. Celebration of feasts.

10. Encouragement by mid-day meals and free uniforms to the needy.

11. J.R.C. Functioning—Children have done social work to other poorer children—International albums exchanged.

12. Parents and teachers association formed and parents day held. Uplift through "School Improvement Conference Scheme"—Introduced Monthly Progress Reports.

(4) S. AMOS,
Headmaster,
Government Senior Basic School,
Arumanai.

"Raise the tone of the school."

1. As an Assistant, I assisted the Headmaster in all respects for the efficient and smooth running of the institution, and helped in improvement of Tamil teaching in the school and did the maximum to raise the tone of the school and for its steady growth.

2. Put up a shed 60' x 20' with local contribution for accommodating the growing strength of the pupils.

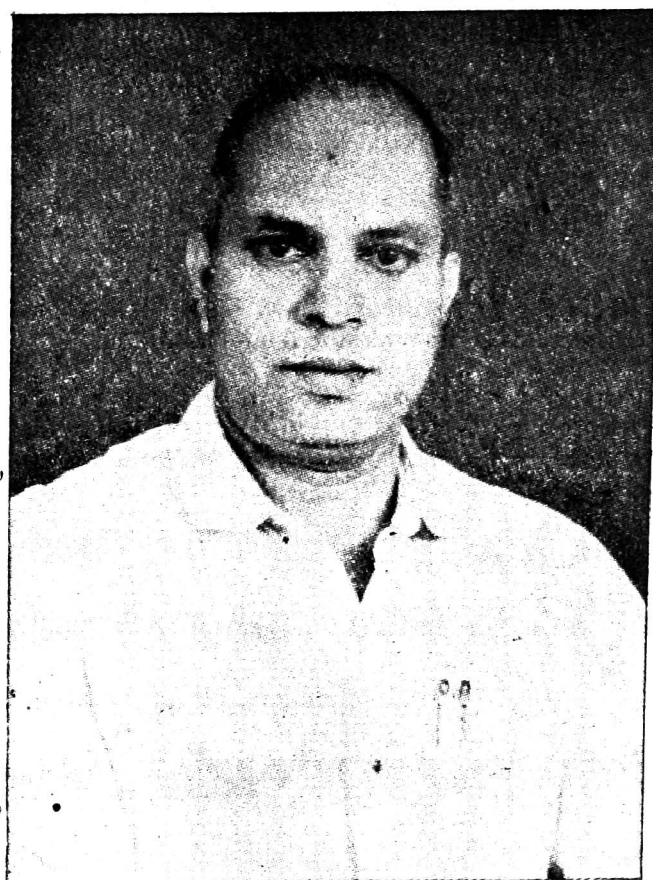
3. Started mid-day meals at this Centre.

4. Worked for the construction of a Government building 60' x 20' for Rs. 10,000 and completed it in 1962.

5. With the help and co-operation of the public, the Junior Basic School was upgraded into a Senior Basic School.

6. Provided furniture worth Rs. 400 during school improvement drive, 1963.

7. The School Improvement Committee is very active and is ready to do all possible help for the growth and upkeep of the temple of learning.



(5) A. VENKATARAMAN,
Headmaster,
Sri Balaganapathi Vidyasala,
Thiruvaiyaru.

"Secretary of the teachers association since 1954."

The strength at the school is nearly four hundred and thirty with a staff of fourteen teachers. Every year, I am celebrating Independence Day, Valluvar Day, Bharathi Day, Gandhi Jayanthi, Children's Day and the Anniversary of the School.

I am the Secretary of the Teachers' Association, Thiruvaiyaru. On behalf of the Association, School Improvement Conference, Defence Fund Collection, Uniform Dress Distribution, Bharathi Day Celebration and Children's Day were celebrated during my secretaryship.

3. I have been the Secretary since 1954. I won the appreciation of the authorities and the public.

4. I have also arranged Free Tutorial Classes to the Higher Grade Teachers appearing for the S.S.L.C. Examination.

5. I am also the Secretary of the Tamilnad Elementary School Teachers' Federation, Thiruvaiyaru Block.



6. I am a Scouter. I have served in the local Sri Thyaga Brahma Festival and the Mahamakam, Kumbakonam.

7. I am the Member of the Village Vigilance Committee, Thiruvaiyaru. This appointment was made by the District Superintendent of Police, Thanjavur.

8. I am the Director of the Local Co-operative Stores.

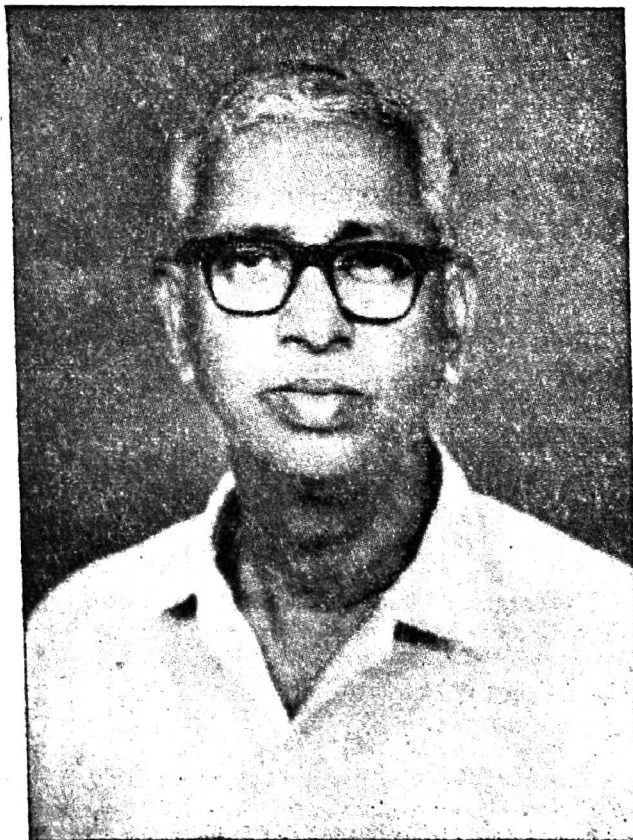
9. I have also arranged many religious discourses such as Ramayana and Mahabharatha.

10. I am a Hindi Pracharak. I am giving free Hindi Instruction. I am the Honorary Principal of the Local Hindi Vidyalayam, Thiruvaiyaru.

(6) L. ANTONY,

*Headmaster,
St. Mary's Senior Basic School,
Pudupalayam, Cuddalore-1.*

"Set a good example to teachers."



1. Celebrated Play Festivals in the school for 15 years.

2. Took prominent part in all the school improvement conferences celebrated in Cuddalore as Treasurer.

3. Mid-day Meals Scheme was introduced during my period as Headmaster.

4. Civil Guard Commander during the II World War (1939-45).

5. Set a good example to the teachers as well as students in teaching good manners, God-fearing and punctuality.



(7) A. ANBIAH IGNATIUS,

*Headmaster,
St. Anne's Higher Elementary School,
Kudankulam (via) Idinthakarai,
Tirunelveli district.*

"Team work among teachers".

I felt that environment was important for education. So I laid out a garden and made my students and teachers take interest in the same.

I gave special place to games. I found out students who had talent for music, drama, etc., and trained the boys to improve their talent by organising Villupattu, one act play and the annual drama which lasts for about 5 hours.

I insist that the teachers should prepare their notes of lessons well and advise them to make proper aids.

This being a backward area, during the morning assembly, I personally point out the children who want something in the way of bath, nail-cutting, dental cleanliness, etc., and see that they improve their sanitation.

The poor children are provided with free books, slates, etc.

This is the only school where I have worked. It started as a single teacher school. Now this is a Higher Elementary School with 15 teachers. *There is team work and a spirit of understanding among the teachers* which is in no small way responsible for the standard of the school both from the instructional and extra-curricular points of view.

(8) R. SUBRAMANIAM,

*Headmaster,
P.U. Elementary School,
Kadapakkam Post, Chittamoor Block,
Madurantakam Taluk.*

"The Headmaster should reside in the school village."



During my long service as teacher I have served in two schools, Kakkanallur in Kancheepuram Taluk and Kadapakkam, the present one. The first and foremost requirement for maintaining efficiency is that the Headmaster should reside in the school village. I have scrupulously followed

this and secured in a large measure the co-operation of parents and the public. I have successfully organised the noon-meals and school improvement schemes, parents' association, school celebrations of national, religious and cultural importance and similar useful activities. I have always secured the willing co-operation of my assistants in all the school activities. During the last ten years I was able to secure several gift-articles.

(9) M. V. KANDASWAMY,

*Honorary Presidency Magistrate and Founder
and Headmaster,
The National Higher Elementary School,
Royapuram, Madras-13.*

"Hard labour of the staff."



I started my career as an untrained teacher in a Village at Pudupatti, Aruppukottai Taluk, Ramana-thapuram District. I served there as a single teacher for two years and then underwent teachers' training during 1934-36.

I joined as an assistant in the Dhanalakshmi Patasala, Madras-21 and was promoted as a Headmaster of that school within two months in 1936. During my service in the school till the end of June 1942, the strength of the school was raised from

65 to 1,500. A two-storeyed building with all modern conveniences was constructed by my efforts with public help.

I took up the Management of Govindappa Mudaliar Elementary School in July 1942 from Sri A. R. Govindappa Mudaliar and this school developed from 19 pupils with a single teacher to the status of a Higher Elementary School with 1,000

pupils and 30 teachers due to the sincere and hard work of the teachers.

In July 1952, I started the present National Higher Elementary School.

The strength, staff, standard of education and discipline of the National Higher Elementary School have improved with the co-operation of the public of the locality and the hard labour of the staff.

LIST OF TEACHERS SELECTED FOR THE STATE AWARD.

MADRAS SOUTH.

1. Sri C. T. Veerabadran, Assistant, Corporation Upper Primary School, Krishnampet, Madras-5.

2. Sri B. Krishnaswamy Pillai, Headmaster, Corporation Higher Elementary School, Prakasam Road, Madras-17.

MADRAS NORTH.

3. Sri M. V. Kandaswamy Nadar, J. P., Headmaster, National Higher Elementary School, Madras-13.

4. Smt. Hepsie Bagyanathan, Arumuga Nadar Aided Higher Elementary School, 56, M.C. Road, Madras-21.

SAIDAPET.

5. Sri N. Perumal, Headmaster, Panchayat Union Junior Basic School, Tenneri and P.O., Chingleput District.

6. Sri T. C. Narashimhalu Naidu, Headmaster, Municipal Welfare School, Konnur, Villivakkam.

CHINGLEPUT.

7. Kumari Padmavathy Tripasa, Teacher, Panchayat Union Elementary School, Tiruporur.

8. Sri R. Subramaniam, Headmaster, Panchayat Union Elementary School, Kadapakkam, Madurantakam.

TIRUVELLORE.

9. Sri S. Radhakrishnan, Teacher, Panchayat Union School, Pattarai Perumbudur, Chingleput District.

10. Sri A. Subramaniam, Teacher, Harijan Welfare School, Keezhmudalambedu, Chingleput.

VELLORE.

11. Sri K. Balasundaram, Headmaster, Municipal Senior Basic School, Karai, Ranipet, North Arcot District.

12. Sri A. S. Krishnamurthy, Headmaster, Kalasapalayam Municipal Higher Elementary School, Vellore, North Arcot District.

TIRUVANNAMALAI.

13. Sri A. Janardhanam, Headmaster, Sannadhi Aided Higher Elementary School, Wandiwash, North Arcot District.

14. Sri R. Vadivelu, Assistant, Panchayat Union Elementary School, Thatchur and P.O. (via) Arni, North Arcot District.

TIRUPATHUR.

15. Sri S. Raja Rao, Headmaster, Aided Mufide Am Elementary School, Nellikollai, Vaniyambadi, North Arcot District.

16. Sri S. B. Samudi Gounder, Headmaster, Panchayat Union Elementary School, Kondakinadanapalli and P.O., North Arcot District.

CUDDALORE.

17. Sri Sivaprakasam Pillai, Assistant, Panchayat Union School, Kodikal Street, B. Mutlur P.O., Chidambaram Taluk.

18. Sri L. Antony, St. Mary's Senior Basic School, Pudupalayam, Cuddalore-1.

VILLUPURAM.

19. Sri M. Pavadai, Teacher-Manager, Sri Saraswathy Aided Higher Elementary School, Lingareddipalayam and P.O., South Arcot District.

20. Sri S. Nagarathinam, Teacher, Panchayat Union Higher Elementary School, Kandadu (via) Markanam, South Arcot District.

VRIDHACHALAM.

21. Sri R. Kandaswamy, Assistant, Panchayat Union Higher Elementary School, Tittagudi, South Arcot District.

22. Srimathi I. Kanagam Elizabeth, Teacher, D. M. Girls' Boarding Higher Elementary School, Silpam, Tirukoilur, South Arcot District.

NAGAPATTINAM.

23. Sri C. Somasundaram Pillai, Teacher, Panchayat Union Elementary School, Vaipoor, Thanjavur District.

24. Sri S. Amirtham, Headmaster, Panchayat Union Higher Elementary School, Eravancheri (via) Poonthottam, Thanjavur District.

THANJAVUR.

25. Sri V. Jagannathan, Teacher, Panchayat Union Higher Elementary School, Mohanur Post, (via) Gandarvakottai, Thanjavur.

26. Sri A. Venkataraman, Headmaster, Sri Balaganapathy Vidyasala, Thiruvaiyaru, Thanjavur District.

MAYURAM.

27. Srimathi S. Prahathambal, Headmistress, Panadurai Municipal Elementary School, Kumbakonam, Thanjavur District.

28. Sri J. Chandrasekaran, Headmaster, Panchayat Union Elementary School, Thadalam West, Sirkali, Thanjavur.

TIRUCHIRAPPALLI.

29. Sri A. Jesudas, Headmaster, Harijan Welfare Higher Elementary School, Sikkathampurpalayam, Tiruchirappalli District.

30. Sri K. S. Narayanaswamy, Headmaster, Panchayat Union Higher Elementary School, Thiruchendurai, Tiruchirappalli District.

PUDUKOTTAI.

31. Sri P. K. S. Mohammad Kasim, Teacher, Panchayat Union Elementary School, Perunthurai, Tirumayam Post, Tiruchirappalli District.

32. Sri S. Aiyaswamy, Headmaster, Panchayat Union Elementary School, Kottaimedu, Tiruchirappalli District.

ARIYALUR.

33. Mrs. Mary Thambiappan, Assistant, S.P.G. Higher Elementary School, Ariyalur.

34. Sri P. K. Dhanaraju Pillai, Assistant, Panchayat Union Elementary School, Sriperumpudur, Kariamanickam P.O., Tiruchirappalli District.

DINDIGUL.

35. Sri S. R. Subramania Iyer, Headmaster, Sourashtra Higher Elementary School, Nilakottai, Madurai.

36. Sri C. Muthuveeran, Headmaster, Panchayat Union Junior Basic School (Main), Iyyampalayam, Madurai.

MADURAI.

37. Mrs. Vedavalli, R. Basingar, Teacher, Nehru Vidyasala, Madurai.

38. Sri T. Velayutham, Headmaster, Municipal Higher Elementary School, Thallakulam, Madurai.

USILAMPATTI.

39. Sri S. Rangaswamy, Headmaster, Panchayat Union Elementary School, Mela Gudalur, Gudalur Post, Periakulam Taluk, Madurai District.

40. Sri K. Vellaichamy, Headmaster, Panchayat Union Elementary School, Devadanampatti, Periakulam, Madurai District.

RAMANATHAPURAM (CENTRAL).

41. Sri V. Deivakkannu, Assistant, B.P.V. Sala Senior Basic School, Palayampatti P.O., Aruppukottai, Ramanathapuram District.

42. Srimathi Lily Devavaram, Teacher-Manager, R.R.R.K. Higher Elementary School, Sivaganga, Ramanathapuram District.

VIRUDHUNAGAR.

43. Sri P. Koil Pillai, Teacher, K. V. Sala Higher Elementary School, Virudhunagar.

44. Sri S. Perumal Thevar, Teacher, Panchayat Union School, A. Lakshmipuram, Ramanathapuram District.

DEVAKOTTAI.

45. Sri D. M. S. Rajarathnam, Teacher, N.S.N. V. P. S. Elementary School, Devakottai.

46. Sri M. P. Subramanian, Headmaster, Khyrathul Alia West Muslim Senior Basic School, Paramakudi, Ramanathapuram District.

TIRUNELVELI SOUTH.

47. Sri A. Anbiah Ignatius, Headmaster, St. Anne's Higher Elementary School, Kudankulam, (via) Idinthakarai, Tirunelveli District.

48. Sri M. S. Raghunathan, Headmaster, Panchayat Union Higher Elementary School, Nanguneri Post, Tirunelveli District.

TIRUNELVELI (NORTH).

49. Sri K. Ulaganathan Pillai, Headmaster, Tagore Memorial Higher Elementary School, Tuticorin.

50. Sri M. Subramanian, Headmaster, Municipal Primary School, Vadakur, Tuticorin.

TIRUNELVELI CENTRAL.

51. Sri A. J. Appadurai, Headmaster, T.D.T.A. Higher Elementary School, Reddiarpatti, Tirunelveli.

52. Srimathi P. Dharma Annammal, Teacher, Panchayat Union Elementary School, Panpoli, Tirunelveli District.

ERODE.

53. Sri K. S. Periaswamy Iyer, Headmaster, Sri Sitalaxmi Balika Higher Elementary School, Kodumudi, Coimbatore District.

54. Srimathi Amalotpala Mary, Assistant, Panchayat Union East Elementary School, Anthiyur Post, Coimbatore.

COIMBATORE.

55. Srimathi R. Rangammal, Assistant, Panchayat Union Senior Basic School, Vadugapalayam, Avanashi, Coimbatore district.

56. Sri A. Antonimuthu, Headmaster, Panchayat Union Basic School, Rakkiapalayam, Avanashi, Coimbatore.

POLLACHI.

57. Sri K. Natarajan, Headmaster, Panchayat Union Elementary School, Kallugarai, Madathukulam Post, Coimbatore.

58. Sri P. K. Muthuswamy Servai, Teacher-Manager, Aided Elementary School, Sevanthampalayam, Muthanampalayam Post, Palladam taluk, Coimbatore.

THE NILGIRIS.

59. Sri M. Nanja Gowder, Headmaster, Panchayat Union Primary School, Kenthorai, Thummahatty Post, The Nilgiris.

60. Sister M. Sebba, Headmistress, Bethlehem Senior Basic School, Ootacamund.

SALEM.

61. Sri C. Ulagalandan, Teacher-Manager, Sri Chinnaswamiah Aided Senior Basic School, Attur, Salem District.

62. Sri S. M. Abdullah, Teacher, Panchayat Union Higher Elementary School, Deevattipatty, Salem District.

DHARMAPURI.

63. Sri D. P. Govindaswamy, Assistant, Municipal Elementary School, Appavoonagar, Dharmapuri-3.

64. Sri N. Arunachalam, Headmaster, Panchayat Union Elementary School, A. Papparapatti and P.O., Dharmapuri.

NAMAKKAL.

65. Sri I. Chinnappan, Headmaster, Panchayat Union Elementary School, Konganapuram, Salem District.

66. Sri L. Veerappan, Headmaster, Panchayat Union Elementary School, Karaiyanpudur, Mudali-patti Post, Salem District.

NAGERCOIL.

67. Sri S. Chidambarathanu Pillai, Headmaster, Government Upper Primary School, Mahadanapuram, Kottaram P.O., Kanyakumari District.

68. Sri K. Muthukumaraswamy, Teacher, Government Senior Basic School, Ramapuram, Nagercoil.

THUCKALAY.

69. Sri S. Amos, Headmaster, Government Senior Basic School, Arumanai, Kanyakumari District.

70. Sri M. Velayutham, Headmaster, Government Upper Primary School, Kollencode, Kanyakumari District.

HOPE.

“The only hope of saving civilization is through enlightened education.”

—TAGORE.

H. B. MAJUMDER,

*Head of the Department,
Department of Basic Education,
N.C.E.R.T., New Delhi.*

**"A synthesis between modern society
and rationalism"—"Pursuit of
science out of love for Truth."**

Basic Education in the Age of Science

What should be the basic values in our national system of education in a changing society which is giving high weightage to science and technology? Are the values inherent in Nai Talim acceptable to our society today?

There is a common belief that a national system of education must be rooted to the basic values and cherished traditions and cultures of the land. Tagore has always advised us to remember that every nation has its own lamp to burn in the world fair of civilizations, however tiny or feeble it may be: and it is always a great calamity if even the tiniest and least luminous of them is burnt out. Gandhiji was never tired of reminding us that any education to be successful must be rooted to the soil. Both Tagore and Gandhi wanted the cultures of all lands to be blown about us as freely as possible, but were reluctant to be blown off from our cultural moorings. All our great savants have always been unanimous in pointing out that India has a message to the world. It is a message, not modern or fashionable, but old and time worn, tested repeatedly at the touchstone of life. More than three thousand years ago our Upanishads had declared that 'Every thing belongs to God, we are merely the trustees and must put service before self. We should forego greed.'

More than two thousand years ago Lord Buddha asked us to learn to love all beings as the mother loves her only child. Our highest fulfilment lies in the realisation of the infinite within the bounds of our limited existence, in the expansion of our ego and in generating infinite love in us.

Our civilization has placed renunciation before enjoyment, service before self, co-operation before competition, simplicity before splendour, heart before head, self-realisation before learning, honesty before cunning and relentless search for truth before everything else. These ideals may seem to be old fashioned and out of date and our pragmatic moderns may laugh at them. But still these are the ideals, the values that form the very core of Indian civilization.

If, therefore, our education is to be rooted to the basic values and the most cherished tradition of India, it must teach us to generate this love to derive joy in selfless service, to strengthen us to overcome all narrowness, to place human consideration above everything else, to inspire us to undertake the ceaseless search for Truth. I believe Nai Talim takes adequate care of these basic values, which were relevant not only thousands of years ago, but are more so today, when the need for love is so great.

Yet some one of us, who is protagonist of science and technology, may like to ask, "Can these values satisfy the aspirations of the modern society which is so much marked by scientific and technological advancement in a fast changing social complex?" This question appears pertinent because never before in history have science and technology made such tremendous progress and therefore our education has got to meet this challenge. Education is to be based on our basic values of love and also on science, because through science we can bring about social change. But are values and scientific progress incompatible? This is the problem we educators in India have to solve today.

It is believed that science and technology can eliminate poverty. Ours is indeed a poor country and if we look around us, we find countries which have so much advanced in Science are all rich and affluent. We may at once draw the conclusion that education in science has made them rich. But the conclusion, however, self-evident it may seem, requires a careful analysis.

We do often confuse education with science with that in technology. Science is the search for laws behind the confused mass of events, for unity behind diversity. It aims at developing a mental attitude of taking nothing for granted, of suspending judgment, of analysis and synthesis, of inductive deductive reasoning and experimentation and of proving everything to the hilt using all known devices. Science symbolises the limitless, tireless pursuit of the human soul for the realisation of the Truth. Science is inseparately wedded to truth

and Truth alone and not to opulence. Education in science opens up multitudes of magic doors to splendour, opulence and power. But if a student of science fails to conquer the temptation of falling a victim to them he loses sight of this supreme purpose, the search for truth. And what is that Truth? Love thy neighbour is the Truth.

Technology uses science, no doubt, but it has no such ideals before it. It simply aims at using the findings of science for speeding up production and accumulation of wealth which leads in their turn to hatred and exploitation. Technology is always associated with opulence and more production, while science with Truth.

It appears that the West has liquidated poverty which also is our immediate concern. Hence it is very logical that we want to follow the footsteps of the West and to conquer our bitterest enemy, viz. poverty. The pursuit of science has given the west knowledge, the scientific mind, peace and ability to serve humanity. But what has brought them power and splendour and limitless riches is not science but technology—technology which uses science but has enshrined greed in its heart as its God. It is this Greed that guides Western Technology, which has brought so many problems in so-called modern society. But is modern society rational in its outlook? It is not. Otherwise it would not have prepared itself for destruction and annihilation while talking of peace and would

not have boasted of scientific knowledge while millions are without food, clothing or shelter. India certainly needs a modern society, but with a rational outlook. We must not blindly follow the Western technology. We should certainly study and use science but that must not lead us to conflicts with our fundamental values.

We may now arrive at the following conclusions :—

We must teach our children quite clearly what science means and what its pursuit stands for. We must try to develop the scientific attitude in our children, so that as they grow up they are capable of solving our socio-economic problems scientifically keeping themselves free from superstition, beliefs and opinions. Our children will study science not for power or wealth or personal comforts, but would use science for the service of mankind by tempering it with love.

To my mind Basic Education is never in conflict with true science. Let us prepare our future generations for the pursuit of science out of love for Truth. We in Basic Education must do this bringing about a synthesis between the modern society and rationalism. Let our teachers of today be true teachers of science by remaining true students of science all the life long. Let them be true seekers of Truth—the Truth which brings all human souls together in the interest of welfare of all.

PRODUCTION-ORIENTED EDUCATION.

“Education today is largely academic. It must be production-oriented and children must be taught to contribute their mite to the country’s economic and industrial growth.”

—M. C. CHAGLA.

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Question Box

I. What is the Process of Motivation ?

Motivation, contrary to the popular usage of the term, is not a bag of tricks which the teacher uses to produce learning. Rather it is a process which belongs to the pupil. It is similar to vision in that it involves external stimulation, appropriate mechanisms of response, and an internal force which energizes the response. The basic substratum of motivation may be found in the needs of the child. The first important characteristic of motives is that they have an energizing function. They stir up behaviour, besides releasing energy, motives have a character of directionality. Energy produced by needs seeks a discharge in relevant incentives, or goal objects which satisfy needs. In brief, motivation may be described as a process in which energies produced by needs are expended in the direction of goals.

Motivation of school learning depends upon such factors as the learner's purpose or intent to learn, his self-concept and self-confidence, his levels of aspiration, and his knowledge and appraisal of how well he is doing in relation to his goals. It is the job of the teacher to create an atmosphere which provides desirable outlets for needs in the direction of worth while incentives—an atmosphere in which interests will, as a consequence flourish.

[JAMES MONROE HUGHES : *Education in America.*]

II. What is an Opportunity Room ?

Opportunity room is the name given to a special room in a school set aside and specially equipped for the instruction of pupils who possess marked handicaps that make it impossible for them to learn in classes enrolling normal pupils. These handicaps may be either physical or mental.

[JAMES MONROE HUGHES : *Education in America.*]

III. What is the Language Laboratory ?

The language laboratory now found in many high schools is an instructional aid to foreign language teachers who stress building conversational skills. The equipment in the language laboratory enables pupils to listen to the spoken word and to repeat it in return and then listen again to their own

pronunciation, thus comparing their own language with that of the expert.

It is general procedure to have the lessons taped and for all the pupils to listen to the same materials through individually provided earphones. The teacher also can join in with explanations. Each pupil may intimate what he has heard and have his own voice recorded. He may then play his version back, judge his response, then repeat the procedure until he is satisfied. As the reader perhaps knows, tapes can easily be erased and used over many times. The language laboratory permits each pupil to proceed on his own and to practice building conversational skills in accordance with his own needs.

[JAMES MONROE HUGHES : *Education in America.*]

IV. What is Action Research ?

"Action Research means Research carried on by those who are directly involved in the problems being studied rather than by outside investigators or Research Specialist.

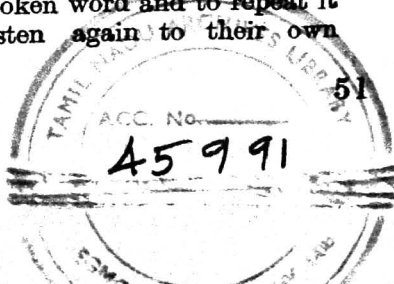
Action Research is aimed, primarily at the evaluation and improvement of educational practice.

The studies must be undertaken by those who may have to change the way they do things as a result of the studies. Our schools cannot keep up with life they are supposed to sustain and improve unless teachers, supervisors, pupils, administrators and school patrons continuously examine what they are doing singly and in groups. They must use their imaginations creatively and constructively to identify the practice that must be changed to meet the needs and demands of modern life, courageously try out these practices that give better promise and methodically and systematically gather evidence to test their worth. This kind of process, I call, Action Research."

[S.M. COREY.]

V. What is a Workshop ?

Much learning takes place when there is interaction among different personalities engaged in the teaching profession. Workshop provides this interaction and opportunity for teacher growth in service.



Workshop has a more "down-to-earth" than an "Upto Heaven" quality.

The usual programme in a Workshop consists of discussions, meeting in the morning, individual work, conferences and recreations in the afternoon and general meetings in the evening.

[H. S. S. LAWRENCE : " *Inservice Training for Teachers.*"]

VI. What is a seminar Reading Programme ?

It is a programme to provide teachers and other educationists a means of making significant educational experience widely known to stimulate thinking and through the writing of papers, to share with others the experience they have acquired and the knowledge they have gained by study and experimentation. This will enrich educational thoughts and practice.

VII. What is Team Teaching ?

Team teaching is a rather recent term used to designate the practice long used in universities of having a number of teachers, each with a different but related speciality, teach certain courses as a team. In the high schools as many as a hundred

pupils may be taught by a team of perhaps half a dozen teachers whose training, interests, and talents supplement one another. Often times the pupils are a select group. The length of the class period is typically flexible and usually the larger group is broken into smaller group perhaps with each smaller group meeting with one teacher of the team. Pupils may be grouped and regrouped in such a way that teachers may work with the whole group, with any part of it, or just with individuals.

[JAMES MONROE HUGHES : *Education in America.*]

VIII. What is a Seminar Discussion ?

It is also called a round table discussion. Advanced students or Research workers of the same category meet for mutual help and discussion.

[HARRY MADDOX].

IX. What is a Panel Discussion ?

It is also called Brain-trust discussion. It is a panel in which a group of experts discuss and debate a question with some audience participating.

[HARRY MADDOX.]

TEACHERS ARE STILL LEARNING.

"Many of our best teachers insist that even after long years they are still learning, adapting, listening, still experimenting, still failing to reach the ultimate in their skill and knowledge."

—WILLIAM ABRAHAM—(*A Hand Book for New Teachers*).

Science is simply commonsense at its best—that is, rigidly accurate in observation and merciless to fallacy in logic—T. H. Huxley.

Science Fairs at Madras and Coimbatore 1966-67

Importance and History of the Science fair.

We are living in an age of Science. Hence any programme of sound education should not only impart a sufficient quantum of scientific knowledge relating to modern developments which are fast changing the life of people everywhere but also inculcate the scientific attitude to life and living. This will free us from the shackles of superstitions, dogmas, taboos and prejudices and encourage free enquiry and unbiased judgments.

We are facing a grave situation under a national emergency with the Pakistani aggressors violating our borders at all odd times and the Chinese dragon showing her ugly teeth and threatening our hard-won freedom. Our defence needs are so great that we have to discard outmoded weapons and produce our own planes, ships and munitions of war which can stand the test of being second to none of the advanced countries of the world. We have to catch the pupils young and discover in them scientific talents and encourage them so that our country will have more Ramans and Krishnans and take its pride of place in the comity of nations in the field of scientific advancement and contribute to the security and defence of our Motherland.

For this purpose, the National Council of Educational Research and Training has been sponsoring hundreds of science clubs all over India with a view to encouraging students to take to creative channels of scientific hobbies and interests and to energise the teaching and learning of science at schools. The council offers an initial non-recurring grant of Rs. 1,200 to each of selected schools. Science Fairs are organised annually to serve as a forum for display and dissemination of the useful knowledge and activities conducted at these science clubs. These are being held in collaboration with the State departments of education at the district, regional and State level with a view ultimately, to holding them at the national level.

The objectives of the Science Fair are—

(i) To identify and nurture the future scientists of India;

(ii) To encourage students to try their ideas and apply their class-room learnings to creative channels;

(iii) To provide opportunities to students to witness achievements of peers and thereby to stimulate them to plan their own projects;

(iv) To popularise science activities of students among all so that further improvements in the standard of performance may be achieved; and

(v) To provide a forum for participating teachers to share their experiences in the programme of science teaching through participation in discussions and symposia which are held during Science Fairs.

Science Fair in Coimbatore Educational District.

Coimbatore District which has been pioneering many a programme of educational reform through the galaxy of its progressive educational institutions and prominent educationists has been organising the science fairs annually in a fitting manner. In 1961-62 the District Science Fair was held at R.K. Sreerangammal Kalvi Nilayam (High School). In 1962-63 it was held at St. Michael's High School, in 1964-65 at T.A. Ramalingam Chettiar High School and in 1965-66 at the Union High School, Coimbatore. This year it was held at R.K. Sreerangammal Kalvi Nilayam (High School), Coimbatore, from 27th to 29th January 1967.

The one hundred and eighty-five exhibits from twenty schools were classified subject-wise and arranged in eight rooms. Code numbers were allotted to the exhibits. This arrangement stood the judges in good stead as regards the assessment of the true worth of the various exhibits without any personal bias. The centre of exhibition of all exhibits was the "Hover-Craft" designed and constructed by the N.C.C. Cadets of the R.K.S. Kalvi Nilayam, Coimbatore. The craft had no wheels but it floated in the air just about an inch from the ground level over an air-cushion created by its own power. Every one praised the ingenuity and originality of the cadets.

Science Fair at St. Christopher's Training College, Madras.

Realising the great need for discovering and nurturing the latent Science talents in school children, the National Council for Educational Research and Training (NCERT) issued as early as 1961 a directive to the Extension Centres attached to certain selected Training Colleges. These instructions stressed the value and importance of holding Science Fairs at district and State levels and making every effort possible to spot out Science talents lying dormant in pupils of Secondary Schools. It was also laid down that these Science Fairs should, as far as possible, be organised and run in conjunction with the Government Departments of Education. In pursuance of this programme of work, St. Christopher's Training College held its first Science Fair in February 1962.

During the last few years, there has been a steady increase in the number of Science Clubs in Secondary Schools, so much so that at present nearly every Secondary School in our area has a Science club of its own, apart from the Central Science Club. It

is even more gratifying to note that many of these Science clubs are doing good work under the fostering care of keen and enthusiastic science teachers.

The great stimulus the Science clubs have received from the annual Science Fairs and the good work done by them are amply demonstrated in the number and variety of exhibits in this year's Exhibition.

This year's Fair was planned and organised by the working Committee consisting of Heads of Schools, Science teachers and the Inspectorate. Mr. Mathias, Chairman of the Working Committee and President of the Central Science Club, was the chief motivating figure behind the Fair. The help and co-operation of the working Committee, participating schools and the faculty of St. Christopher's Training College is commendable.

It has been customary to award shields and individual prizes in the form of books and certificates of merit. In addition to these, at the request of the Girls' Schools, a separate shield has been instituted this year for the Girls School which has done best at the Science Fair.)

The following are the details regarding the shield and prizes given at the Science Fair at Madras :—

AWARDS AND SHIELDS.

SHIELD.

- | | | |
|----------------------------|-------|--|
| 1 Physical Science | .. .. | Madras Christian College High School. |
| 2 Natural Science | | K. C. Sankaralingha Nadar High School.
St. Anne's Girls' High School. |
| 3 <i>Best Girls School</i> | .. .. | Bentinck Girls' High School. |

PRIZES (BY SCHOOLS).

- | | | | | |
|-----------|-------|------------------|-------|---|
| 1st Prize | .. .. | Natural Science | .. .. | St. Anne's Girls' High School. |
| 2nd Prize | | Natural Science | | Madras Christian College High School
and K. C. Sankaralingha Nadar
High School. |
| 1st Prize | | Physical Science | | Madras Christian College High
School. |
| 2nd Prize | | Physical Science | | K. C. Sankaralingha Nadar High
School. |

COMBINED.

- | | | |
|-----------|-------|---------------------------------------|
| 1st Prize | .. .. | Madras Christian College High School. |
| 2nd Prize | .. .. | Besant Theosophical High School. |

INDIVIDUAL PRIZES.

- | | | |
|--------------------|-------|---|
| 1 Model of Lift | .. .. | Madras Christian College High School—C. L. Richard. |
| 2 Incubator | | Northwick Girls' High School—J. Beulah and
J. Sundari. |
| 3 Artificial Fibre | .. .. | St. Lourdes High School—S. J. Anuradha. |

INDIVIDUAL PRIZES—*cont.*

4 Computer	..	..	..	Madras Christian College School—M. Ramaswamy.
5 Telephone	..	..	..	Madras Christian College School—R. Venkatarama Reddy.
6 Frying appalams	..	..	..	K. C. Sankaralingha Nadar School—Nageswaran.
7 Working model of an aeroplane.				Madras Christian College School—Upendra Pai.
8 Physiology models	..	..	..	Madras Christian College School—P. Mithra Vittal Shenoy.
9 Morse Telegraph	..	..	..	R.B.C.C. School—K. Damodaran.
10 Digestive System	..	..	..	M.C.C.—John Gideon.

CERTIFICATE OF MERIT.

1 Torso Model	..	..	..	K. C. Sankaralingha Nadar School.
2 Skeletal System	..	..	..	St. Anne's Girls' High School.
3 Veins, etc., made out of coir	..	..	..	Madras Christian College School.
4 Models	..	..	..	St. Lourdes High School.
5 Temple	..	..	..	K. C. Sankaralingha Nadar School.
6 Diffusion Filtration evaporation				Besant Theosophical School.
7 Mighty Carbon	..	..	..	Northwick Girls' School.
8 Photography	..	..	..	K. C. Sankaralingha Nadar School.

LIST OF EXHIBITS AT ST. CHRISTOPHER'S TRAINING COLLEGE SCIENCE FAIR.

1 Electric bell.	29 Model of heart and its cross section.
2 Signal light.	30 Model of the movement of the muscle.
3 Magic Mirror.	31 Model of the circulatory system in man.
4 Neutral equilibrium.	32 Specimens of Phylum molusca.
5 Dynamo and motor.	33 Some corals.
6 Aeroplane and bird, chart, comparison of aeroplane and bird.	34 Sea panorama.
7 Upward thrust.	35 Quiz Board (with bandswitch).
8 Stages of frog.	36 Quiz Board (Right and wrong).
9 Parts of skin.	37 Finding out.
10 Shells.	38 Microphone—Working model.
11 Pulmonary circulation.	39 Morse telegraph —Working model.
12 Is your hand steady.	40 Arc Lamp —Working model.
13 Rain Alarm.	41 Arc Heater.—Working model.
14 Carbon arc.	42 Toy signal—Working model.
15 Magic Paraffin.	43 Galvanoscope.
16 Fire writing.	44 Simple motor.
17 New coins for old.	45 Periscopes, Kaleidoscope (Microscope, Telescope Fixed Focus).
18 Magnetic boats.	46 An adjustable device.
19 Model of stethoscope.	47 Collections.—Alloys, Ores, Materials for making a tyre, Different kinds of mica, coal, graphite.
20 Air exerts pressure.	48 The Mighty Carbon.
21 Electrolysis of water.	49 What I am made of.
22 Fire extinguisher.	50 (Calcium carbonite) one name with three forms.
23 Electric writing.	51 Wrist balancing apparatus.
24 Wine into water, water into wine.	52 Parallel series connection.
25 Chemical garden.	53 Dancing doll.
26 Rayon making.	54 Incubator Model.
27 Model of kidney.	
28 Model of parts of a flower.	

LIST OF EXHIBITS AT ST CHRISTOPHER'S TRAINING COLLEGE SCIENCE FAIR—cont.

- 55 Slides for Magic Lantern.
- 56 Models of a boat, Astronomical telescope, electric bell, pinhole camera, periscope, kaleidoscope, galvanoscope, table light.
- 57 Improved apparatus : To show that water has side-ward pressure—Water voltameter.
- 58 Magic box.
- 59 Preparation of Vanaspathi.
- 60 Changing doll.
- 61 Steam engine.
- 62 Manufacture of sulphuric acid.
- 63 Eye and camera.
- 64 Excretory organs—Skin, kidney and lung (model).
- 65 Sense organs—Charts.
- 66 Sea Diorama.
- 67 Plant evolution—Tower.
- 68 Animal—Tower.
- 69 Aquarium.
- 70 Stages in the life history of—Frog, fly, butterfly.
- 71 Birds—Beaks and legs.
- 72 Parts of a flower.
- 73 Fertilisation.
- 74 Root section, stem section, leaf.
- 75 Egg collections.
- 76 Stuffed birds.
- 77 Crabs.
- 78 Sea shells.
- 79 Parts of a tooth.
- 80 Silk work products.
- 81 Albums.
- 82 Heart.
- 83 What a man is made of.
- 84 General circulation of blood.
- 85 Heliotropic chamber.
- 86 Dispersal of seeds.
- 87 Story of Petroleum : Extraction of petroleum purification, distillation and the various by-products and their uses—Model.
- 88 Digestive system in animals : Dissected specimens and charts—Earthworm up to mammal (earthworm, cockroach, frog, fish, calotes, chicken and rat).
- 89 Skulls of animals, wild boar, dog, monkey, cat, rat and bird, Molar tooth of elephant.
- 90 Darwin's Xmas tree (Tree of evolution).
- 91 Model—Eye—Improved—Made of 3 rubber or plastic balls.
- 92 Leaf insect and praying mantis—Live specimens.
- 93 Stages in the development of frog and butterfly—Preserved specimens.
- 94 Collection of wood.
- 95 Impression of leaves.
- 96 Bell jar and balloon.
- 97 Newton's disc.
- 98 Potted plant showing heliotropism.
- 99 Burglar proof House—Model.
- 100 In or out—Model of a house.
- 101 Nerve tester.
- 102 Singing spoons.
- 103 Coin and candle experiment.
- 104 Candle burning inside a tumbler of water.
- 105 Aeroplane.
- 106 Water bad conductor of heat.
- 107 Fire travels.
- 108 Magic ink—Iodine and starch cobalt chloride.
- 109 Air contains moisture.
- 110 Sublimation of iodine.
- 111 Water burns.
- 112 Objects floating in liquids of various densities.
- 113 Neutralisation.
- 114 Action of enzymes.
- 115 Electroplating.
- 116 Making of a model volcano.
- 117 Dancing figures with static electricity.
- 118 Fountain experiment.
- 119 Evolution Tree.
- 120 Wonders that are not wondered at.
- 121 Animals of yesterday.
- 122 Mouth of the snake to show the poison apparatus.
- 123 Sense organs—Eye, ear, nose, tongue, skin.
- 124 Carnivorous plants.
- 125 Skeleton.
- 126 Model—Pollination and fertilization.
- 127 Volta meter, magic lantern, crane.
- 128 Model lift.
- 129 Flash signal.
- 130 Jeep.
- 131 Missile, telephone, signal buzzer.
- 132 Magnetic line.
- 133 Pressure of air.
- 134 Simple record player.
- 135 Calculator.
- 136 Electronic space oscillator.
- 137 Electric merry-go-round.
- 138 Magnetic vibrator.
- 139 Induction nerve tester.
- 140 Transistor, Amplifiers.
- 141 Electric siren.
- 142 Astronomical telescope.
- 143 Computer.
- 144 Telephone.
- 145 Induction coil.
- 146 Working of internal combustion.
- 147 Chamber process, contact process of preparing sulphuric acid.
- 148 Home made chemistry.
- 149 Fountain.
- 150 Moving coil galvanometer.
- 151 Dynamo.
- 152 Thermo.
- 153 Cell.
- 154 Photo electric cell.
- 155 Cement—Manufacture—Model.

MODELS.

WAX MODELS.

- 1 T. S. of Skin.
- 2 Pulmonary Circulation.
- 3 General Circulation.
- 4 Hepatic Circulation.
- 5 Lungs.
- 6 Eye.
- 7 Tongue.
- 8 Ear.
- 9 L. S. of Heart.
- 10 Brain.
- 11 L. S. of Tooth.
- 12 T. S. of Stem.
- 13 T. S. of Leaf.
- 14 T. S. of Root.
- 15 Cell.
- 16 Stomach of Cow.
- 17 Kinds of birds.
- 18 Kinds of Fish.
- 19 L. S. of flower.
- 20 Working of Internal Combustion Engine.
- 21 Parts of Hibiscus flower.
- 22 Nerve Cell.
- 23 Taste buds.
- 24 Stomata.
- 25 Ductless glands.
- 26 Tissues.
- 27 Air sacs.

PLASTER OF PARIS MODELS.

- 28 Eye.
- 29 L. S. of Heart.
- 30 Human—Urinary System.
- 31 Circulation of Blood.
- 32 Extraction of Petroleum.
- 33 Extraction of sulphur.
- 34 Cross Section of leaf.
- 35 Reflex action.

PAPER PULP MODELS.

- 36 Digestive system.
- 37 L. S. of heart.
- 38 Skin.
- 39 L. S. of Kidney.
- 40 Eye.
- 41 Ear.

COMPARISON.

- 42 Eye and Camera.
- 43 Ear and Microphone.
- 44 Bird and Aeroplane.

PHYSICS.

- 45 Fire lotus.
- 46 Temple.

PHYSICS—cont.

- 47 Telegraphy.
- 48 Safety—Door.
- 49 Nervous testing.
- 50 Before marriage and after marriage.
- 51 Lung Capacity.
- 52 Electric Connections.
- 53 Laws of Reflection.
- 54 Spray—guns.
- 55 Principle of density.
- 56 Four layers of liquids and floats.
- 57 Boiling without heat.
- 58 Expansion by heat.
- 59 Carbon-di-oxide as a fire extinguisher.
- 60 Lightning.
- 61 Picture by magnetic power.
- 62 Inertia apparatus.
- 63 A home-made Hydrometer.
- 64 A home-made music instrument.
- 65 Electric Train.
- 66 Refraction of light.
- 67 Law of floatation.
- 68 Electric Kettle.
- 69 Electric heater.
- 70 The chicken in the egg.
- 71 Seeing through walls.
- 72 Kaleidoscope.
- 73 Picture copier.
- 74 Precarious forks.
- 75 Gravity machine.
- 76 Egg in the bottle.
- 77 Electric bell.
- 78 Water finds its level.
- 79 Boiling vegetable oil in a paper.
- 80 Automatic siphon.
- 81 Colour fountain.
- 82 Pressure increases with depth.
- 83 Egg tester.
- 84 Magic Doll.

CHEMISTRY.

- 85 Invisible ink—
 - (a) Wet method.
 - (b) Dry method.
- 86 Unburnable kerchief.
- 87 Chemical—garden.
- 88 Colour-play.
- 89 Crime-detections.
- 90 Water helps burning.
- 91 Volcano.
- 92 Shy-girl.
- 93 Bleeding without cutting.
- 94 Pulse detector.
- 95 Taking a coin in water without wetting your hand.
- 96 Preparation of crystals.

MODELS—cont.

PHYSIOLOGY.

- 97 Headless frog.
- 98 Heart-beating.
- 99 Breathing.
- 100 Reflex action.

PRESERVATION.

- 101 Brain
 - 102 Heart
 - 103 Liver
 - 104 Spleen.
 - 105 Tongue
 - 106 Eyes
 - 107 Lungs
 - 108 Shark.
 - 109 Synapta (tongue-fish).
 - 110 Tetradon.
 - 111 Fish showing gills.
 - 112 Full development of embryo.
 - 113 Prawn.
 - 114 Mullet.
 - 115 Barbus.
 - 116 Butter flies, leaves and flowers.
 - 117 Star fish.
- } GOAT.

SLIDE—PREPARATION.

- 118 Human brain.
- 119 Urinary system.
- 120 Reflex action.
- 121 Villus.
- 122 Muscles.
- 123 Plant Cell.
- 124 Parts of a castor seed.
- 125 Life history of butter fly.
- 126 Leaf.
- 127 Ball and socket joint.
- 128 Air sacs.
- 129 Kidneys.
- 130 Nerve Cells.
- 131 Taste buds.

NATURAL SETTINGS.

- 132 Desert Terrarium.
- 133 Forest Terrarium.
- 134 Marine aquarium.
- 135 Mountainous Fauna.
- 136 Fresh-water aquarium.
- 137 Cave Fauna.
- 138 Cobra in the ant-hill.
- 139 Avascularium.
- 140 Photography.

SCIENTIFIC OUTLOOK IN EDUCATION.

"Our aim should be not only to enrol more children but also to give them real education. I should like to have a scientific outlook developed in the child even at a very early stage and in primary schools the boys should learn to observe."

—M. C. CHAGLA.

SCIENTIFIC ATTITUDE.

"The Product of Science is changing, but the attitude of science is permanent. With good teaching it must become a part of each educated individual."

—JOHN CLIFTON MOFFIT.

T. S. RAJAGOPALAN,
Headmaster,
Hindu High School,
Triplicane, Madras.

**"Educationists speak of making
 Mathematics palatable to the young ;
 our Ancients have made it palatable
 even to the old."**

The Charms of Mathematics

Ages ago, Cains, a Roman Boy, who attended a school for businessmen, found it hard to add 257 and 369. According to the system of notation then in existence, he wrote these two numbers as CCLVII and CCCLXIX and using a frame with coloured beads he plodded on. Multiplication and division must have been more horrible experiences and, perhaps in the height of vexation, someone must have written

" Multiplication is a vexation
 And division drives me mad."

We would be faring much worse if we continued the same clumsy notation ; but fortunately for us, we are using the most wonderful shorthand system with the symbols, 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9, each of which has its value also according to its place it holds in the number. Our experience has taught us to make and memorise multiplication tables and evolve "short-cuts" for laborious multiplications and divisions. The metric system of weights and measures and the system of coinage we are now using, are but an extension of the decimal system of numbers and with the minimum exertion we are able to work out easily difficult mechanical exercises.

My first pleasant experience with numbers was when, as a boy, I was asked to find a solution to the following problem : A father brings home nine pearls of value 1, 2, 3, 4, 5, 6, 7, 8 and 9 gold coins respectively and tells his three daughters that they

8	1	6
3	5	7
4	9	2

can divide them equally among themselves both in number and value. The solution is contained in the magic square ; any arrangement-horizontal or vertical-gives 3 numbers adding up to 15. Even diagonally the three numbers give a total 15.

Another magic square (given below) is equally popular.

1	15	14	4
12	6	7	9
8	10	11	5
13	3	2	16

The four numbers in each row or column or along a diagonal give a total of 34. The wonderful arrangement of numbers must have so fascinated our fore-fathers as to use the squares to fore-tell the fortunes of people ; in fact, people in other countries used the former square as a charm to drive away evil spirits.

My love for numbers grew when I was told that I could check up myself multiplications and even divisions. The teachers in those days were very severe and even for small errors we were pinched on the ear or received a severe knock on the head with the knuckles ; the treatment from the average parent at home was much worse. So it was that we felt it necessary to check up multiplications and divisions by casting out 9's. Even this fooled me once ; it must have been a multiplication of the type 473×307 wherein I multiplied without taking note of the zero and got what proved to be correct according to the test—17501 instead of 145211. Later with my experience with numbers and methods I came to know the method of casting out 11's which is known to be fool-proof. Mathematicians say that casting out 7's and casting out 13's are even more dependable. The principle of casting out 9's is used in fixing auspicious moments ; the thithi (the day of the fortnight), the vara (the day of the week), the nakshatra (the number of the star) and the lagna are added together and after casting out 9's the remainder is used to ascertain whether the combined effect of these four would be good or bad. Suppose it is Sunday, the fourth day

of the fortnight and that it is Krithika and Vrishabha lagna is considered ; the numbers 1, 4, 3 and 2 added ; the remainder after casting out 9 is 1 ; this is used to ascertain whether the lagna is auspicious or not. Testing by casting out 11's was used in Europe in the 13th century.

Mahaviracharya, the author of Ganithasara Sangraha in Sanskrit, suggests the following multiplications as giving very peculiar results :—

1. $12345679 \times 9 = 111111111$ (He says the result is a necklace for the Narapala).
2. 333333666667×33
3. 14287143×7
4. 152207×73
5. 37037037×3
 37037037×6
 37037037×9 , etc.

The following arrangements are worthy of note :—

1. $7 \times 15873 = 111111$
 $14 \times 15873 = 222222$ etc., etc.,
2. $1 \times 8 + 1 = 9$
 $12 \times 8 + 2 = 98$
 $123 \times 8 + 3 = 987$, etc., etc.
3. $9 \times 9 + 7 = 88$
 $98 \times 9 + 6 = 888$
 $987 \times 9 + 5 = 8888$
 etc., etc.
 $98765432 \times 9 + 0 = 88888888$

Educationists speak of making mathematics palatable to the young ; our ancients have made it palatable even to the old. They present very fine situations in delightful verses with the usual embellishments of classical poetry. While studying for the first time Ganithasara-Sangraha I have already mentioned, I came across a number of beautiful verses which when rendered into English, will read :

“ One night in a month in spring, a certain young lady on the floor of a mansion, white like the

moon, and situated in a pleasure-garden with trees bent down with the load of bunches of flowers and fruits, and echoing with the sweet sounds of parrots, cuckoos and bees intoxicated with the honey of the flowers, due to a love-quarrel with her husband had her necklace of pearls sundered ”.

My eyes did not go farther as my mind was captivated by the exquisite flow of the verses and the unparalleled description of the situation. Such problems are found in plenty in our ancient works on Mathematics and it should be our endeavour to translate such works and present, at least parts thereof to the present generation and thus perpetuate the memory of the Mathematicians of yore.

I have mentioned so far only about the charms of numbers. There are other branches of Mathematics like Algebra, Geometry, Trigonometry and Calculus which enable us to know correctly about our surroundings and the objects we use in our daily life and help us in exploring the unknown regions and spheres. Our experience has taught us to condense rules of calculation into formulae and explain principles and processes and expand further the contents of Mathematics which is really unfathomable. Our knowledge of Geometry made it possible for us to measure the objects in our daily use and design homes and equipment for a life of comfort and happiness. Advanced branches of Mathematics enable us to make discoveries in Science and the rapid strides mankind has taken in this direction will soon find man the master of not only the earth and water but of the air and the space above.

Among other things I must mention how Mathematics is the common possession of the peoples of the world—the notation, the signs, the principles, the processes and the conventions are all common to all people, realms and regions and it is not in the power of any to mar or vitiate it or distort it to satisfy his own ends. As all agree as regards the notation, convention, etc., it is possible for all to work as a team with the result that the subject is advancing rapidly and helping us in the growth of our daily activities. In fact our daily transactions and calculations relating to the same have been rendered easy on account of calculating machines which can be used to compute with very large numbers.

TRY.

“ If you find your task is hard,

Try, try again ;

Time will bring you your reward

Try, try again.”

—McGUFFEY.

"It is easy enough to be pleasant when life flows along like a song ; but the man worthwhile is the one who will smile when everything goes dead wrong"—E. W. Willcox.

Madras Education Smiles

"Yes, Stamp Collecting is educational", said the fond mother to the Visitor.

For instance, where is Hungary, Eric ?

She asked turning to her son.

Without looking up from his stamp book, the young Philatelist answered,

"Two pages in front of Italy".

* * * *

"I've taken three lessons in French".

"Could you carry on a conversation with a French Man?"

"Oh, no, but I could talk to anybody else who had three lessons".

* * * *

"You're late, Eddie", scolded Teacher.

"Well, it was late when I left home", said Eddie.

"Why didn't you start earlier"? demanded the teacher ;

"Because, Madam", replied the boy, "it was too late when I left to start early".

* * * *

When little Tommie wanted to go to the movies, he asked his elder brother to get permission from their mother. "Ask her yourself", said the brother. "She's your mother just as much as she's mine".

"Yeah" replied Tommie, "but you've known her longer".

* * * *

"My family is very exclusive. I go back to William the Conqueror".

"I suppose you'll soon tell me your ancestors were on the Ark with Noah?"

"Certainly not! My people had a boat of their own".

"Mother", asked the girl, "is it correct to say, water the horse, when he's thirsty?"

"Yes, dear";

"Well", said the child picking up a saucer, "I am going to milk the cat".

* * * *

A Mathematics Professor complained to the Policemen that a student had almost run him down as he attempted to cross the Street.

"Did you get his car number?" the police man asked ;

"Well, not exactly", the professor said.

"But I do remember noticing that if it was doubled and then multiplied by itself, the square root of the product was the original number with the integers reversed".

* * * *

"The School teacher was explaining how heat makes things expand and cold makes them contract.

"Give me an example", he asked a student.

"Yes, Sir, In summer the days grow longer and in winter they grow shorter".

* * * *

On the opening day of School we had a kindergarten child "left over". The Elementary supervisor, in trying to locate the child's home, asked him where he lived. The youngster replied, "In the house with the telephone pole in front of it".

* * * *

IQ Stands for that *Infuriating Quality* found in the young. For example, the little ones who, in a flash of untutored wisdom, have been heard to say : "A hypocrite is a boy who comes to school smiling"; "My schedule is fighting and taking tests"; "The three R's are racing, rassling and recess".

* * * *

During a recent teachers' convention, a five-year old told his mother, "We're out of school to-day, cause of the teachers' invention".

His older brother, six, interjected, "It's not the teachers' invention, it's the teachers' prevention".

* * * *

"Everyone in the United States is free", the nursery school teacher told her charges. One little boy immediately raised his hand and said "I am not free; I'm four".

*

Two teachers, teaching religion in a remote village thought they had explained heaven and hell rather well. They then overheard one child say "We didn't know what hell was until the teachers came".

* * * *

A mother, new to the community, was told that a number of aptitude tests would be given to her boy on admission to school. "It is OK with me", she said, "but I don't see any sense in giving apt-to-do tests because I can tell you right now that boy's apt-to-do anything".

*

*

GOOD EDUCATION.

"If our children today are denied education what is our India of tomorrow going to be? It is the duty of the State to provide good education for every child in the country."

—JAWAHARLAL NEHRU.

QUALITY AND QUANTITY.

"Injustices to children and youth will be certain unless education for teachers increases in quality and quantity, after teaching commences."

—JOHN CLIFTON MOFFIT.

BUSTLES NOT BATTLES.

"History Teachers should pay less attention to the battles and a little more to the bustles. We need to humanize history by the use of biography."

—ROBERT WALLER—University of Illinois.

List of Science Equipment for Standard VI

Teachers who attended the Five-day Science Workshops and week-end Science Courses at the State Institute of Education have often requested for a list of aids and equipment useful for Science Teaching.

As many schools are lacking in Science Equipment, Government have issued orders sanctioning equipment to Primary and Upper Primary Schools in the State. Panchayat Unions, Aided Managements and Headmasters have therefore requested for information as to what equipment they can purchase out of Government grant. Hence a list of teaching aids, equipment and apparatus required for Nature Study and Gardening in Standards I to IV and Elementary Science in Standards V to VIII has been prepared at the State Institute of Education, Madras and published in book form and supplied to all Inspecting Officers and Panchayat Union Commissioners in the State. This list has been recommended in D.O. No. 201155-68/65, dated 6th December 1966, of the Deputy Director of Secondary Education (Planning) and the District Educational Officers have been instructed to approve the purchase of items of equipment included in this publication.

In this issue we are publishing the list of equipment required for Standard VI.

It is hoped that teachers, Headmasters and Managers would prepare, collect or obtain these aids for making science teaching effective in our primary and upper primary schools. Indeed many aids can be improvised by teachers themselves or collected through pupil co-operation. The equipment suggested is topic-wise and hence teachers would find the list useful. The list has been prepared by Sri P. Sundaresa Pillai, Science Consultant of the State Institute of Education and perused by several teachers and Headmasters.

Once the items of equipment are obtained for a school, they should be utilised for science teaching. Teachers should never complain of lack of equipment. The materials available should be used for class-room demonstration and practical work by pupils. Junior Science Clubs can also be started and pupils encouraged to undertake simple individual or group projects. There is a great need now-a-days to improve science teaching in our schools and to awaken the habits of scientific observation, investigation and discovery in our pupils. Teachers of primary and upper primary schools are advised to get necessary guidance and help from the staff of nearby secondary and training schools or Deputy Inspectors of Schools in the matter of conducting experiments, taking care of the equipment and preserving various specimens.

It is hoped that teachers of science would become aware of the countless possibilities for teaching science in an interesting way. They should teach science in "a very free ranging and exciting way" by using the facilities available in their schools and environments.

—EDITOR.

Food.

1. *Charts*.—(i) Food materials rich in carbohydrates, proteins, fat and mineral salts.
(ii) Food stuffs rich in Vitamins.
(iii) Mixed diet and balanced diet.
(iv) Different food constituents in rice, wheat, ragi, cholam and vegetable oils.
2. Samples of mixed diet and balanced diet.
3. Samples of Items i, ii, iii and iv of 1 above—live specimens.

Breathing.

4. *Charts*.—(a) Respiratory organs in man showing air passage upto lungs.
(b) Lungs.
(c) Adenoids and tonsilitis.
(d) Face appearance due to breathing through the mouth.
(e) The gills of a fish.

Plaster of Paris or paper or paper pulp models—

- (i) Respiratory organs in man showing air passage.
- (ii) Lungs with heart.
- (iii) Preserved specimen of fish-head with gills.
- (iv) Working model of the lungs of man.

Coming into being

5. *Charts*.—Coloured.
(i) Parts of a bean seed.
(ii) Conditions necessary for germination.
(iii) Stages of germination.
(iv) Parts of a typical plant.
(v) Enemies of plants—Grass-hopper, snail and caterpillar.
(vi) Cutting, layering and grafting in plants.
6. *Specimens preserved*—
(i) Bean seed—Showing its parts.
(ii) Stages of germination.
(iii) Germination box or tumbler garden.
(iv) Conditions for germination—Bean seeds, a beaker or glass tumbler, 6" scale or a flat wooden piece.
(v) Grass-hopper, snail and caterpillar.
7. *Real live specimens*.—Cutting and grafting.

Movements.

8. *Charts*—
(i) Skeletal system.
(ii) Muscular system.
(iii) Different kinds of joints—Ball and socket, hinge, gliding and pivot joints.
(iv) Biceps and triceps.
9. *Models*—
(a) Plaster of Paris—Different kinds of joints.
(b) Wooden working model to depict the action of biceps and triceps.
10. *Actual skeleton*—Human (Articulated).

Maintaining physical efficiency and healthful living.

11. *Charts*.—First-aid in cuts and drowning.

Exploring the environment.

12. Physical or ordinary sensitive balance with weights—No. 6 foot ball bladder—Twine piece to demonstrate that air has weight.
13. *Composition of air*—Bell jar 8" dia. with stopper. China dish 3" dia.—White phosphorus—Glass rod 12" long—beaker—Lime water—Ice pieces.
14. *Air is necessary for burning-trusing*—A glass tumbler or gas jar 3" dia. and 8" height—Candle—Match box—A round aluminium tray—Fresh iron filings—Glass rod 10" long—A piece of thin cloth—Glass trough, dia. 12".
15. *Water*—Freezing and boiling points—Centigrade thermometer—Round bottomed flask 250 ml. Two-holed rubber—Stopper—Wire gauze—Retort ring—Retort stand—Boss head—Clamp—Spirit lamp—Beaker 250 ml.—Ice pieces.
16. Water level and spirit level.

Harnessing forces of nature.

17. *The three orders of lever*—Wooden apparatus—A pair of scissors, nut crackers or lime squeezer—Fire tongs.

Employing products of nature for human comforts.

18. *Specimens*—Coal, coke, petroleum, crude oil.
19. Preserved specimens of insects in the locality as in Standards II and III.
20. Portraits of scientists—Pasteur and Jenner.

A Class-Room Scene

VOICES OF THE EXPERTS.

The scene is a classroom.

"Perkins, what is an equation?"

"Er—is it the line around the middle of the earth?"

"No, Perkins. Do you know, Wormwood?"

"Yes, Sir. When one thing is the same as another".

"Good, give me an example".

"Yes, Sir. Two dustmen equals three teachers".

"Sounds odd, Wormwood. Explain yourself".

"Our last teacher told us, Sir. Three teachers earn as much as two dustmen".

"Indeed!"

"Yes, and therefore, one teacher equals two-thirds dustman".

"Remarkable. Did this teacher tell you anything else?"

"No, Sir. He got the sack for complaining. But my mum tells me a lot".

"About what?"

"About schools and teachers".

"Oh, does she, Is she an expert? Is she a teacher?"

"Oh, no Sir. She spends all day in the betting shop, but she knows all about schools and teachers. She went to school herself, you see. Long time ago. So she knows all about it. That's what she says".

"I see. What else does she say?"

"She says you don't do your job properly because all the kids do what they like at home, and she says it's your fault".

"But I'm not in charge of you at home. What's your father doing? Can't he control you?"

"He's given up trying. There's nine of us, see. All he does is moan all day about the forms he has to fill up to get more allowance. Then he moans about how he can't get enough clothes for all of us. Then he moans about doing the washing-up".

"Washing up?" Why doesn't your mother do it?"

"She has to rest a lot, she's having another baby. Dad says it's another load of expense. Says he wishes he was like you with a cushy job and long holidays. And then he moans about paying rates so teachers can live in Council houses".

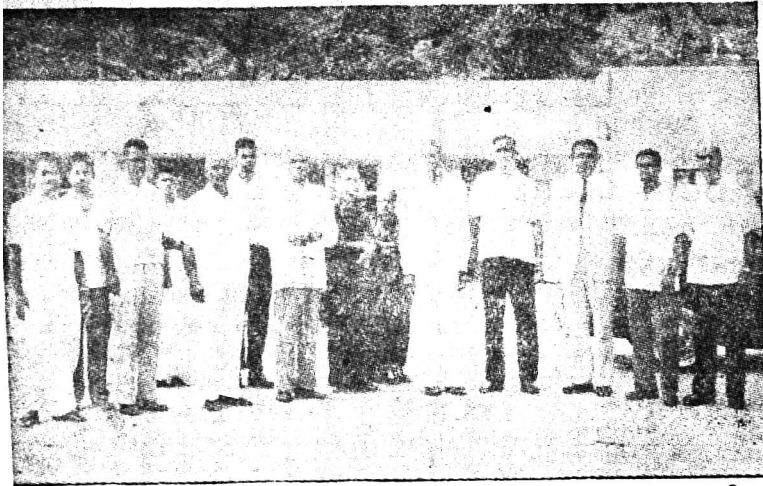
"Oh, does he? Then tell him from me that I pay rates too, and most of it goes on educating ten little...er...Wormwoods like you."

"Yes, Sir. I'll tell him".

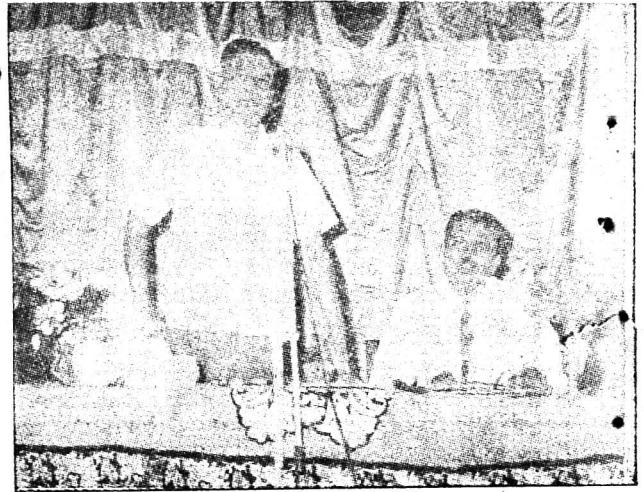
MALTHUS,

(*The Teacher*, London, January 27, 1967).

THREE-DAY ORIENTATION SEMINAR FOR TEACHER EDUCATORS AND INSPECTING OFFICERS—CHINGLEPUT DISTRICT IN JANUARY 1967



The Director of Secondary Education with the Director and Staff of the State Institute of Education and Inspecting Officers



The Director of Secondary Education inaugurating the Seminar at the G.B.T.S., Chingleput, on 10th January 1967

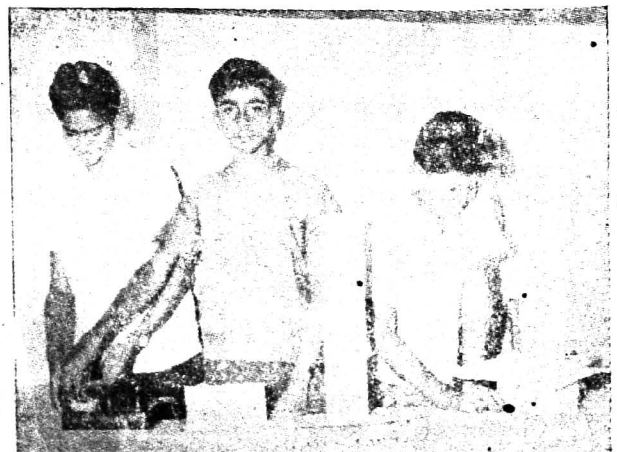
SCIENCE FAIR AT ST. CHRISTOPHER'S TRAINING COLLEGE, MADRAS, IN FEBRUARY 1967



Model of an Aeroplane



Slot Machine for Tea



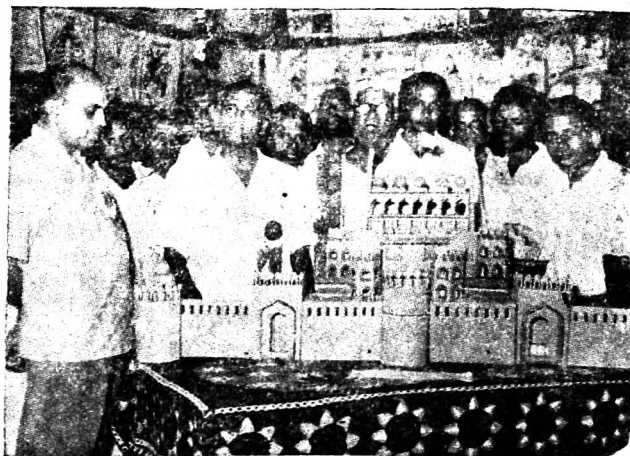
Model of an Elevator



The Director of Secondary Education going round the School Improvement Exhibition at Ariyalur—August 1966

SCHOOL IMPROVEMENT CONFERENCES

The Director of Secondary Education going round the School Improvement Exhibition at Koilpatti—12th December 1966



Field News

State Institute of Education.

Three-day Orientation Seminar for Inspecting Officers and Teacher-educators of the three Educational Districts in Chingleput District.

Dr. M. D. Paul, Director of Secondary Education, inaugurating the Seminar on 10th January 1967 at Government Basic Training School, Chingleput, remarked that the huge sums of money ear-marked for education should be spent usefully and not put in the drain. It is proper human relationship and love of pupils that attract the pupils towards the teachers. Teachers should build on this good relationship and make the schools worthwhile places for the pupils to remain. Pupils should acquire functional literacy in the five years when they are in schools. The Director emphasised that a concerted effort must be made to prevent wastage in the schools. He concluded by saying that children must be properly moulded and good character developed in them.

Earlier, Dr. H. S. S. Lawrence, Director, State Institute of Education welcomed the Director of Secondary Education and the distinguished educationists, visitors and Departmental Officers and explained the objects of the Seminar. He said that there must be emphasis on the quality of education. The Seminar had to think constructively, pool their resources and offer quality education in the schools. The Seminar discussed problems relating to the modern concept of inspection, improvement of academic standards in schools, problems in the administration of primary schools and teacher-education.

Publication of "Madras Education."

The First issue of the Quarterly Educational Journal "Madras Education" was released on 31st January 1967 at the State Institute of Education, Madras by Dr. M. D. Paul, Director of Secondary Education. In handing over a copy of the first number of the Journal to Sri S. Balakrishna Joshi, Headmaster, Hindu Theological High School, Madras the Director referred to the fact that the Journal should be a joint venture of the Department and teachers. It should be a forum for exchange of good school practices.

Dr. Robert W. Caldwell, U. S. Consul in Madras who presided over the function stressed that there

should be a spirit of dedication in teaching. A great responsibility lay on the teachers in preparing the young pupils for the nation.

Earlier Dr. H. S. S. Lawrence, Director of the State Institute of Education welcomed the Director of Secondary Education, the President and the distinguished gathering. He explained at length the aims and objectives of the journal. The State Survey Officer, Sri T. S. Venkatraman proposed a vote of thanks.

COIMBATORE DIVISION

Drive to arrest wastage in Schools.

Addressing a meeting of Deputy Inspectors of Schools and Secretaries of Teachers' Association Centres of Dharmapuri Educational District on 22nd December 1966, the Divisional Inspector of Schools, Coimbatore urged the officers and teachers to arrest wastage in primary and upper primary schools. He stressed the need for maintaining close contact with parents for improving education.

Science workshop at Arni.

A workshop for Science teachers was organised from 26th to 31st December 1966 at the Board High School, Arni by the Department of Extension Services. Teachers from thirty Government High Schools took part in this workshop.

Educational tour.

A batch of forty teachers and pupils of the Government High School, Mallasamudram, Salem District, went on an educational tour to Madurai, Thanjavur, Tiruchirappalli, Srirangam and Rameswaram from 27th to 29th December 1966.

Teachers Self-Improvement Scheme.

The District Educational Officer, Vellore participated on 18th January 1967 in the "Teachers Self-Improvement Schemes" run at the Goodlet

High School, Sholinghur from 4th April 1966. Under the scheme, the teachers of primary schools endeavour to improve their academic and professional qualifications. Out of four teachers' Association centres in the range three are mobile moving from one school to another every month. At many such centres the local public come out with enthusiasm to provide noon-meals to the teachers.

Science Fair at Coimbatore.

A Science Fair was conducted at the R. K. Srirangammal Kalvi Nilayam at Coimbatore from 27th January 1967 to 29th January 1967. The highlight of the Science Fair was the exhibition in which 185 exhibits from twenty schools were classified subject-wise and displayed. The centre of attraction of the exhibits was the "Hover-Craft" designed and constructed by the N.C.C. Cadets of the R.K.S. Kalvi Nilayam. The Craft had no wheels but it floated in the air just one inch above the ground level over an air-cushion created by its own power. As a part of the Science Fair competitions in essay writing, debates, quiz and aptitude tests, drawing and paper reading were conducted for pupils and teachers. The Science Fair attracted a large number of students, teachers and the public.

Essay competition on "Our District Dharmapuri."

As suggested by the Collector of Dharmapuri District, an essay competition on "Our District Dharmapuri" was conducted and the following pupils were selected for award of prizes on 26th January 1967 :—

- I. Prize—C. Manivannan, Government High School, Dharmapuri. Standard XI.
- II. Prize—L. Savithri, Government High School, Kambalnallur. Standard X.
- III. Prize—M. Viswanathan, Government High School, Kaveripattinam. Standard XI.

MADRAS DIVISION

Free uniforms to pupils.

At a function in the Panchayat Union Senior Basic School, Vallipuram, Tirukalikuntam on 23rd October 1966, 201 sets of free uniforms worth Rs. 1,600 were distributed to pupils of the school.

Science Club inaugurated.

The Science Club of the Government High School, Vediangadu and the Parent-Teacher Association of

the school were inaugurated on 6th December 1966 by the District Educational Officer, Tiruvallur.

Vice-Chancellor stresses quality of Education.

Laying the foundation stone for the Asan Memorial School at Cochin House, Nungambakkam, on 23rd January 1967 in memory of the great poet Kumaran Asan, Dr. A. L. Mudaliar, Vice-Chancellor of the Madras University said that greater stress should be laid on quality of education in schemes of educational development. He emphasised that progress of any country depended very much on intellectual leadership. Sri M. Anantanarayanan, Chief Justice of Madras who presided said that teachers should understand the creative impulse of young people and help develop citizenship and intellect.

Science Fair at St. Chirstopher's Training College, Madras.

A Science Fair was held at St. Christopher's Training College in February 1967. This Fair was a joint venture of the Heads of Schools, Science Teachers and the Inspectorate. The faculty of St. Christopher's Training College actively participated in the planning and organisation of the Science Fair. In addition to the variety of exhibits in the different branches of science, there was an exhibition of books also. As was customary, shields, individual prizes and certificates of merit were awarded to the best schools and best pupils. This year a seprate shield exclusively for girls. schools was instituted to be awarded to the best among them.

Small Savings Scheme.

One thousand and two hundred pupils of the Government Boys' High School, Tittagudi in Vridachalam Educational District opened Savings Bank Pass Books under the Small Savings Scheme. This is a great achievement.

MADURAI DIVISION

Improvement of S.S.L.C. Examination Results.

A special meeting of heads of all the Secondary Schools was convened on 4th November 1966 at Jayamkondam when the question of poor results at the S.S.L.C. Public Examination and the ways and means to improve the quality of education, individual attention to backward pupils in each subject and the like were discussed. Special emphasis was laid on student discipline at school and outside.

School Improvement Conferences at Ariyalur and Lalgudi.

School Improvement Conferences were held on 25th August 1966 at Ariyalur and Lalgudi. The schemes undertaken in the conferences and the value thereof are furnished hereunder:—

Schemes, (1)	Ariyalur. (2)		Lalgudi. (3)	
	Rs.	P.	Rs.	P.
School Buildings, Furniture, apparatus and appliances, vessels for mid-day meals centres, etc:	8,50,677	30	5,48,231	00
Public contribution to Mid-day Meals Scheme.	22,268	00	..	..
Uniforms to children—parents	25,266	00	17,928	00
Free	15,628	00	3,541	00
Dress gifts to Jawans' families	480	00	..	..
Endowment for awarding prize to best pupil. ..	..	..	200	00
Cash contribution for construction of an additional building for the Government High School, Jayamkondam.	2,200	00	..	..
Cash contribution for school building, garden and playground.	..	..	4,000	00
Donations—				
Nehru Fund	4,509	14	1,493	13
Teachers' Welfare Fund	5,038	72	3,373	50
Total ..	9,26,027	16	5,78,766	63

Besides these, land gift of 17.33 acres for Mid-day Meals Scheme and school buildings and 71.24 acres exclusively for the Mid-day Meals Scheme were made at the Conference.

Six Teachers' Association Centres of Lalgudi (South) Range have arranged for the opening of a library for each and almirahs and books were purchased.

Six teachers with more than 25 years of devoted service were honoured with Ponnadai at the Conference.

Dr. M. D. Paul, Director of Secondary Education, Madras, presided over these conferences and Sri K. Gopalan, Divisional Inspector of Schools, Madurai division distributed uniforms to children.

It is a matter of deep appreciation and gratitude that Dr. Kuppackari, Medical Officer, Primary Health Centre, Mannachanallur, has undertaken a free medical check up of over 800 pupils of the local high school and arranged for the follow up.

Cultural Programme in aid of Funds.

A Three-day Cultural Programme for collection of funds for College Planning Forum was organised from 27th to 29th October 1966 at Tankam Auditorium, Madurai by the Divisional Inspector

of Schools, Madurai, the Convenor of the function. The leading Colleges of the District took part. A net sum of Rs. 9,554.86 was collected.

Children's Rally.

A Children's rally was organised at Madurai on 14th November 1966 in which all the Municipal Elementary Schools of Madurai took part.

Conference of Headmasters of Secondary Schools in Madurai.

The Director of Secondary Education, Dr. M.D. Paul addressed a Conference of Headmasters of Secondary Schools of Madurai Revenue District on 4th January 1967. The Director of Secondary Education presided over a function in the O.C.P.M. Girls' High School, Madurai on the same day when he distributed shields and prizes to the schools and pupils who secured the best results in the S.S.L.C. Public Examination of March 1966.

One-week Seminar at Usilampatti.

A One-week Seminar for thirty teachers of Primary and Upper Primary Schools was held at the T.E.L.C. Basic Training School for Girls, Usilampatti from 5th to 11th January 1967.

It was inaugurated by Kumari D.M. Rajammal, District Educational Officer. The Seminar discussed ways and means of improving the quality of education.

One-week Seminar in Madurai.

An Inservice course for thirty teachers of primary and upper primary schools was conducted at Madurai in December 1966.

Exhibition of Teaching aids.

An exhibition of teaching aids was organised on 24th January 1967 at the Nehru Vidyasala Teachers' Association, Madurai. Several cheap and inexpensive improvised teaching aids for the different school subjects were among the wide range of articles exhibited. A manuscript magazine was brought out on the occasion.

One-week Seminar at Batlagundu.

An Inservice Course for thirty elementary and secondary grade teachers of primary and upper primary schools was held at the C.S.I. Basic Training School, Batlagundu from 16th January 1967 to 22nd January 1967. Demonstration lessons on the different subjects were given during the course and teachers prepared several useful teaching aids and charts. The problem of stagnation and wastage and measures to minimise them were discussed. Sri P. Pandian, Panchayat Union Commissioner, inaugurated the seminar. Mr. R. R. Keithan, Sarvodaya Worker, spoke on Health and Sanitation in schools. He emphasised the importance of manual work by students in respect of gardening and other food productive activities. The District Educational Officer, Dindigul, presided over the Valedictory function.

One-week Seminar at Thanjavur.

An Inservice Course for thirty teachers of primary and upper primary schools was conducted

at the Government Basic Training School for Men, Thanjavur from 5th January 1967 to 11th January 1967. Various topics under the new syllabus were discussed and demonstration lessons were given by experienced teachers. Useful teaching aids were prepared by the teachers.

TIRUNELVELI DIVISION.

School Improvement Conference at Kovilpatti.

A School Improvement Conference was held at Koilpatti on 12th December 1966. The Chief Minister of Madras inaugurated the conference and Dr. M. D. Paul, Director of Secondary Education, presided over it. As a follow up of the School Improvement Conferences, the Director of Secondary Education, Madras gave instructions to the Inspecting Officers in this Revenue district to check wastage and Stagnation and to improve enrolment. The District Educational Officer convened Teachers' Association Meetings at Taluk and Range levels and gave suitable instructions to the heads of all primary Schools on the subject.

Parents Day—Nanguneri Range.

On 19th December 1966, Parents' Day was celebrated at the C. M. S. Higher Elementary School, Maruthagulam. A meeting of parents was organised on the topic "Stagnation and Wastage" in elementary schools with special reference to the following points :—

1. How best parents could co-operate with teachers in securing regular attendance in village schools.
2. Action to be taken by parents on the reports of teachers regarding individual differences of pupils.

INDISPENSABLES FOR A COMFORTABLE LIFE.

"A little common sense, a little tolerance, a little good humour and you don't know how comfortable you can make yourself on this planet."

—W. SOMERSET MAUGHAM.

"As cold waters to a thirsty soul so is
good news from a far country"—
PROVERBS.

News flashes from Abroad

Asian Leadership Training Seminar.

Delegates from 17 Asian Nations prepared recommendations dealing with professional improvement, teacher recruiting, retraining, special services of teachers organisations, the legal rights and status of teachers, negotiations, and the role of the Treasurer and fund raising at the III Asian Leadership Training Seminar held in Singapore from 20th to 27th November 1966.

[*Education Echo*—1st January 1967.]

Work experience during school hours.

Preparation for life outside school is a subject which many of the country's educationists are now grappling with. Hounslow children may be going to work for one day a week in their last year, if a report by the council's legal department is accepted. If it is, then the day at work could be a year from now.

Some say that pupils in their last year at school should spend at least a month actually working in a factory, shop or office as a kind of acclimatisation. They say that just visiting does not equip the potential worker with the right kind of feel for the job.

In this country the ideas are just beginning to get. In Sweden 14 and 15 years old are already working during school hours. This is part of practical vocational training scheme begun a couple of years ago for eighth-graders in Sweden's nine-grade comprehensive school.

The children spend 3 weeks in a factory, office or shop according to their preference. This can be split up into 3 periods of a week each two 10-day stints or a fortnight, plus another week later.

In Malmo, 92 per cent of the pupils who had done this made a report on their reactions to the experience. Of these 72 per cent thought it was satisfactory. 15 per cent said that they did not have enough to do, and 10 per cent thought they had to do too much. Only 12 per cent disliked their experiences, though 25 per cent said they had not learned very much

about the purpose of the work they were doing—the production, wages, working regulations and so on.

[*Teacher*—December 1966.]

Sixty-five free courses for teachers!

The Board of Education, San Diego Unified School System, now sponsors free college classes for any and all of its teachers. The teachers may get college extension credit by paying \$ 5 per unit to the college involved. Those wishing salary credit must enroll for college credit. The \$ 5 fee charged by San Diego State College is one-third the fee paid per unit for unsponsored classes.

Classes taken with the Extension Division, University of California, receive credit in quarter units. The district sponsored courses are a part of the inservice training programme of the San Diego Schools. Last year, over one-half of the certificated employees participated in some type of voluntary professional growth programme at the college level.

Sixty-five courses are offered to the San Diego teachers this Fall. They cover every phase of the curriculum, as well as many fields of special interest.

[*Journal of Secondary Education*—December 1966.]

What is S.T.E.P.?

The School to Employment Programme (S.T.E.P.) in New York has long provided a model of an effective project which seems to be producing positive results. S.T.E.P. has served many hundreds of youngsters age fifteen or over who have been identified as potential drop-outs and who have been given stipends during year of work-study experience. Approximately 20 to 35 per cent of the students in S.T.E.P. have returned to regular classrooms, while 30 to 35 per cent in each year's programme have obtained full-time employment or have entered the armed forces. A more recent project in New York City is the Municipal Civil Service Co-operative Programme which began in 1964 and has placed more than 800 students in municipal agencies in which

two enrollers share alternate-week assignments as typists, clerks, junior draughtsmen, lunchroom helpers, key punch operators, and other positions. At the end of the 1964-65 school year 47 of the 70 seniors in the programme entered regular full-time positions with municipal agencies. Mobilization for Youth, Harlem Youth Opportunities Unlimited, and other non-school projects have provided additional work-study opportunities for alienated youth in New York.

[*Journal of Secondary Education*—December 1966.]

YOUTH RESEARCH.

Basic Research is like that.

It has long since been realised in these countries how vital research by young people is to the welfare of a nation. America, in particular, has given exemplary assistance to its young scientists. One tremendous incentive was the International Science Fair, which now sets the pattern for similar youth research drives in the Federal Republic, Switzerland, Sweden, Japan and other countries.

In America the science fair has assumed almost the character of a popular sport. More than million boys and girls take part each year. "Thousands of highly talented scientists in our laboratories today chose this profession only because the International Science Fair encouraged them to do so", said Noble Prize Winner Glenn Seaborg, head of the U.S. Atomic Energy Commission.

The Federal Republic has hardly begun yet. The first tender shoots can be seen in the "Jugend forscht" centre in Hamburg. A glance at the list of participants shows what a wide range of subjects are being treated in 1967.

Frank Rohl is studying the "white dwarfs" especially star LFT 543, of which a thimbleful weighs one hundred tons. Gabriele Fuhr and Siegrid Herzog, doctors' daughters, are examining the effects of cigarette smoking on blood pressure, pulse rate and skin temperature.

In the physics laboratory of his school Joachim Schwanbeck is exposing algae to X-rays. Yachting enthusiast Henning Hasemann is inventing a new type of sail in a home-made wind tunnel. Renate Gewers has turned to a subject that could be of interest to millions of house wives: "What effect have dish-washing agents on the surface tension of water?"

Angelika Hellmann collected 2,717 hazel nuts in the town park to find an answer to the question

she had set herself: "Can squirrels see before cracking a nut whether it has kernel or not?" Yes, they can, and Angelika has detailed arguments to prove it. To anyone expressing doubt in the practical value of her findings she replies: "Basic research is like that".

Martin Jakubowski tackled a most intriguing subject: "The homing instinct of frogs". But jumping after the frogs on their steeple chase back to the sea would not produce any conclusive data. So Martin plans to equip them with miniature transmitters on which he can then beam in. To do this he will need a radio operator's licence from the Bundespost. And because he knows that a bureaucratic decision can last longer than a frog's march, he has given himself another year, entering only for the 1968 "Jugend forscht" competition.

[*The German Tribune*—25th February 1967.]

School divided into three houses.

In Newton, Massachusetts, South High School avoids the impersonality of a large school. On the theory that students "Should not live out their day in anonymity, their names sometimes mispronounced at graduation", the 1,500 student school is divided into three "houses", each in its own building, with its own housemaster. Specialised facilities—science labs, library, gymnasium, and auditorium—are in separate structures.

First air-conditioned circular school.

In San Angelo, Texas, education is in the round at the Belaire Elementary School, the first air-conditioned circular school in the country. Sliding, sound proof partitions dividing pie-shaped classrooms can be thrown open for large group instruction.

Push-button access to information.

In Fort Lauderdale, Florida, Nova High School's library is equipped with electronic study stations which give pupils push-button access to information stored on film, tapes, or videotape. A closed-circuit television network links all lecture halls and classrooms to a control centre, permitting teachers to dial live and recorded presentations for instructional use.

A deskless principal.

G. Keith Dolan, Principal of the High School at San Bernardino, California, is a school principal without a desk. He doesn't want one. He threw

his out. He says that a deskless office makes for informal sessions, with the participants sometimes sitting on the floor. It also makes for swift elimination of paperwork, and more time for classroom visits.

Junior High Science—A New curriculum.

Aided by a grant from the USOE, Florida State University has started a five-year project aimed at developing a new science curriculum for the seventh, eighth and ninth grades.

The complete package of science courses and materials will be developed and evaluated in 50 schools selected as a representative sample of the nation's junior-high schools. Approximately 5,000 students and 150 teachers will be involved in the project.

In the seventh and eighth grades, the new curriculum will deal with basic ideas in physics and chemistry. Ninth grades will apply reasoning and experimentation to problems in the biological and earth sciences.

Part of the evaluation will involve programming the materials on a computer to get a record of the difficulties that individual students experience with the course. The feedback will help to refine the materials for specific types of students.

The undertaking, which is expected to cost about \$1.6 million, is intended to overcome the present lack of an overall approach to Junior-high science. The office of Education has awarded Florida State University approximately \$16,000 for one year's support of the project. Ernest Burkman, head of the University's Science Department, is project director.

The complete Examination forecaster.

FIRST FORM RESULTS COUNT !

According to a Lever Kissen Grammar School Head Master, Dr. Erich Weingardt, "it is now possible to say at the end of the first year whether a pupil will go on to pass the school-leaving examination. The forecast is accurate in two out of three cases".

He found that certain connections existed between a pupils' performance in a given subject in the first form and his performance in the same subject when he reached the sixth form. At the same time he established a relationship between grades achieved in one subject and those achieved in a group of other subjects.

On a statistical analysis of the sample, the first fact he established was that sixteen per cent of all pupils are capable of passing the school-leaving examination and not a mere six per cent, as is often maintained in academic circles. Dr. Weingardt furnishes his proof in a mass of mathematical calculations and formulas based on the "Gauss Distribution curve system".

It was found that the correction in grades between the first and sixth forms varied according to subject. The subjects exhibiting a close correlation included Latin, English and strange though it may sound, physical training.

There was a moderate correlation in German while in religious instruction, geography, music and art it was very slight. The subjects which have most bearing on promotion to a higher class as well as on the success in the school certificate examination, are the ones which demand mainly written work. These were the subjects which showed the greatest degree correlation in Dr. Weingardt's survey. Consequently they are also the best subjects on which to base a forecast of the pupils' academic developments.

Several other significant tendencies emerged in the investigation. Thus a first form pupil's grades in Latin or English, German and Mathematics provide a good indication of how he will fare when he takes up French. In the same way it is possible to forecast a sixth former's grades in English on the basis of his first-form Latin Grades.

However Dr. Weingardt stresses that only trained Psychologists can forecast a pupil's future academic performance with any accuracy as the pupils general personality has an important bearing on the matter. A forecast cannot be based on grades alone.

[German Tribune—18th February 1967.]

WHO SUBSIDIZES EDUCATION ?

"America's teachers at all levels of education, in view of the low salaries they have received, have actually been subsidizing education at considerable sacrifice to their families."

—PRESIDENT EISENHOWER'S Committee on Education.

Diary of Events—State Institute of Education, 1967

2nd January 1967	..	..	..	A five-day science workshop for teachers of Upper Primary Schools held at State Institute of Education ended. An exhibition of improvised teaching aids was arranged.
4th January 1967	..	..	..	A five-day science workshop for sixteen teachers of Upper Primary Schools of Madurantakam was started at Madurantakam. Sri Zahiruddin Mohammed, District Educational Officer, Chingleput inaugurated it.
9th January 1967	..	..	..	The five day science workshop at Madurantakam ended. Director, State Institute of Education delivered the valedictory address. An exhibition of improvised teaching aids was arranged.
10th to 12th January 1967	..	..	..	Orientation Seminar for Deputy Inspectors of Schools and Teacher Educators of Chingleput district was held at Chingleput. Dr.M.D. Paul, Director of Secondary Education, inaugurated the seminar. Director, State Institute of Education, delivered the valedictory address.
17th January 1967	..	..	..	A five-day science workshop for fifteen teachers of Upper Primary Schools was inaugurated at State Institute of Education by Sri Mohammed Badsha, Reader, State Institute of Education.
18th January 1967	..	..	..	A three-day Geography Seminar for eighty Primary School teachers in the Extension Area was held at Poonamallee. Director, State Institute of Education, inaugurated the seminar. Sri M.P. Rajagopal, Mc.T. High School, Madras, and Sri A. L. Subramaniyam of Hindu High School, Madras, acted as resource persons.
20th January 1967	..	..	..	The Geography Seminar at Poonamallee ended. Sri V. T. Titus, Joint Director of Secondary Education delivered the valedictory address. An exhibition of teaching aids was arranged.
20th January 1967	..	..	..	Sri Gupta, Field Officer, N.C.E.R.T., visited the Institute.
21st January 1967	..	..	..	The five-day science workshop at State Institute of Education came to a close. Dr. J. W. Wilson, Expert in Science Education, British Council, New Delhi, delivered the valedictory address. An exhibition of improvised teaching aids was arranged.
28th January 1967	..	..	..	Sri P. Sundaresam Pillai, our Science Consultant addressed Teachers' Association meetings at Walajabad and Kancheepuram on "Science Teaching and Preparation of Aids".
31st January 1967	..	..	..	The "Madras Education", a quarterly journal, was released by Dr. M. D. Paul, Director of Secondary Education, Madras. Dr. Robert W. Coldwell, American Consul, presided over the function. Sri S. Balakrishna Joshi, Headmaster, the Hindu Theological High School, was the recipient of the first issue.
2nd February 1967	..	..	..	One day seminar on the improvement of school meals scheme was held at Poonamallee. Mr. Phil Johnson, CARE Administrator, inaugurated the seminar. Six field officers of the CARE Administration, participated. Sri J.Samuel Adik, Special Officer for School Meals, directed the seminar. Fifty teachers of Poonamallee range participated.
3rd February 1967	..	..	..	One day seminar on the improvement of school meals scheme was held at Sriperumbudur. Director, State Institute of Education, delivered the valedictory address. Forty-eight teachers of Sriperumbudur range participated.
8th to 12th February 1967	..	..	..	A five-day science workshop for 15 teachers of Upper Primary Schools was started at Salem. Sri P. V. Venkatavaradhan, District Educational Officer, Salem, inaugurated the workshop. Sri Purushothaman, Professor of Physics, Government Arts College, Salem, delivered the valedictory address. An exhibition of improvised teaching aids was arranged.

- 17th to 21st January 1967 A five-day science workshop for improvement of school education for 30 head-masters of Upper primary schools was held at Pudukkottai. Sri Paul Amirtha Doss, Headmaster, T.E.L.C. High School, Pudukkottai, inaugurated the Seminar, Sri M. Kumara-velu, Professor of Tamil, G.T.C., Pudukkottai delivered the valedictory address. An exhibition of teaching aids was arranged.
- 17th to 22nd February 1967 A five-day workshop for improvement of school education for 30 head-masters of Upper primary schools of Tiruvellore educational district started at Tiruvellore. Sri Alfred, District Educational Officer, Tiruvellore, inaugurated the workshop. An exhibition of teaching aids was arranged.
- 21st to 25th February 1967 A five-day science workshop for 15 teachers of Upper primary schools was held at Pudukkottai. Sri R. Ramachandran, District Educational Officer, Pudukkottai, inaugurated the workshop. Sri A. Panneerselvam, Assistant Professor of Physics, G.T. College, Pudukkottai delivered the valedictory address. An exhibition of improvised teaching aids was arranged.
- 21st to 25th February 1967 A five-day workshop for improvement of school education for 30 head-masters of Upper primary schools was started at Tiruppathur. Kumari A. Meenakshi, District Educational Officer, Tirupathur, inaugurated the workshop. Sri Vythianathan, Headmaster, Ramakrishna High School, gave the valedictory address. An exhibition of teaching aids was arranged.
- 2nd to 4th March 1967 A three-day seminar on improvement of physical education in primary schools, was held at Poonamallee. Sri P. Pavanasam, Chief Inspector of Physical Education, directed the seminar.
- 2nd to 7th March 1967 A five-day workshop for improvement of school education for 30 Upper primary school head-masters was held at Tindivanam. Sri Venkatachari, District Educational Officer inaugurated the workshop. Director, State Institute of Education delivered the valedictory address. An exhibition of teaching aids was arranged.
- 7th to 11th March 1967 A five-day science workshop for 15 teachers of Upper primary schools was held at S.L.B. Upper Primary School, Nagercoil. Sri K. Sundararajan, District Educational Officer, Nagercoil, inaugurated the workshop. An exhibition of improvised teaching aids was arranged.
- 14th to 16th March 1967 A three-day seminar for Craft Instructors of Secondary Schools was held at State Institute of Education.
- 20th to 23rd March 1967 The Director, State Institute of Education and the Co-ordinator participated in the Regional Conference of Honorary Directors and Co-ordinators of Primary Extension services at Mysore. The Director, State Institute of Education, Madras gave the valedictory address.

PROFESSOR OPPOSED TO CORPORAL PUNISHMENT.

A psychology professor at Munich's teacher training college, Dr. Heinz-Rolf Luckert, has come out with a very powerful argument against the use of the cane in schools. According to the professor, in thirty per cent of cases corporal punishment induces a greater or lesser degree of cerebral adipose embolism in the child.

"We are beating our children silly," Professor Luckert declared. The embolism causes a large number of blood vessels in the brain to be blocked, and this leads to headaches, absent-minded-ness and inability to concentrate. All these conditions impair the pupil's capacity to learn and retain facts.

—THE GERMAN TRIBUNE, 25th March 1967.

BOOK REVIEWS

1. *Practice in the use of English*,—John Millington Ward, Longmans, Green and Company, Limited, London, 1966, P. 112, Rs. 6-30.

John Millington Ward is the Director of the Ward Academy of English studies and Professor of English in the Royal Hellenic Naval Academy. Hundred Exercises are given for practice in the use of English. The order of these exercises has been arranged with an eye to variety and interest, not to classification of type or grading of difficulty. The exercises are lively and stimulating. This book can be profitably used by teachers of secondary schools in their classes for revision or reinforcing work. The book is nicely got up.

2. *Teaching English as a Foreign Language*,—J.O. Gauntlett, Macmillan and Company, Limited, 1963, P. 128, Rs. 5-25.

This is a book for a wide range of readers throughout the world. It is specially intended for those engaged in teaching English to students whose mother tongue is not cognate with English and for those concerned with teaching of English at more advanced levels. The aim of stimulating the discussion of ideas and principles of teaching English has been achieved in the book.

The author had been acting for a number of years as special adviser to the Committee on the English Language Program in secondary schools in the Japanese Ministry of Education. He is thus acquainted with the problems which Japanese schools and teachers of English faced.

The aims of the English Language Course, the principles and methods, the psychological problems, phonetics and tonetics and organisational problems have been well described and discussed. The author is all for better programs and better means and not for "unscientific, old-fashioned methods of teaching". This is a very useful book for teacher training institutions and secondary schools.

3. *The Visual Element in Language Teaching*,—S. Pitt Corder, Longmans, Green and Company, Limited, London, P. 96, Rs. 11-55.

The author is Head of the Department of Applied Linguistics, University of Edinburgh. The idea behind the book is that our contact with the world outside is through our senses which are the gateway to all knowledge. In recent years, educators have come to lay more emphasis on learning particularly through the sense of sight or visual methods. Language Teaching and meaning, Visual Materials and their use are well described. Television, Audio-visual courses, the Sound Film, and Situational Teaching are well discussed. Here is a good book for secondary schools and Training Institutions. The modern teacher has to be up-to-date in the use of the visual element in Language Teaching.

4. *Activating the use of prepositions*,—G.A. Pittmann, Longmans, Green and Company, Limited, London, 1966, P. 182, Rs. 9-98.

This is a useful and practical book on the use of six of the prepositions. In teaching English the prepositions are often found to be difficult. Each of the prepositions carries a great number of meanings. The book aims to organise vocabulary round the teaching of the principal meanings of these six prepositions. The materials are arranged properly in the book. The book is intended mainly as a source of oral drill, practice material, reading and dictation for use with classes or groups at all levels of instruction in the language.

5. *Teaching English to Immigrants*,—June Derrick, Longmans, Green and Company Limited, London, 1966 P. 256, Rs. 13.13.

This is a guide book written for teachers teaching English to immigrants in Britain. This will, therefore be useful to all those teaching English to pupils for whom it is not the mother-tongue. It will help the teacher from the point of view of his pupils—how he should proceed with infants, primary or secondary school pupils, or with adults, and how he should deal with pupils of different nationalities with many different mother-tongues.

The author is a Research fellow in the Institute of Education, University of Leeds. The Language problem, the structural, situational approach, pronunciation, oral teaching, reading and writing, remedial teaching aids and apparatus—these are the topics dealt with in detail. A scheme of work for different stages is also given. A teacher's kit for language teaching, a pre-reading apparatus, aural aids and visuals—these are usefully listed out. This is a useful book for teachers of English in our Secondary Schools and trainees and staff in our Training Colleges.

H. S. S. L.

THE HINDU REVIEWS

OUR PUBLICATIONS

• 19—3—1967.

PERIODICAL :—

MADRAS EDUCATION : Vol. 1, No. 1 : Edited by Dr. H. S. S. Lawrence and published by the Director, State Institute of Education, Madras-34.

"Madras Education" is a quarterly that aims at disseminating information about the activities of the Education Department. The inaugural number contains articles on teacher training, language instruction, regional colleges, etc.

TAMIL :—

ASIRIYAR VIJNANAKKAIYEDU : Published by the State Institute of Education, Madras-34.

This is a guide-book to teachers containing instructional materials for conducting experiments in accordance with the syllabus prescribed for standards VI, VII and VIII. This book supplies a felt need and bears evidence of careful thought and practical experience on the part of the authors. Inclusion of some control experiments, strict conformity with the departmental list in the translation and transliteration of technical terms, the use of metric measure in place of British measures used in the book and a few diagrammatic illustrations of which there is none will surely enhance the value of the guide. On the whole this is a very useful publication which seeks to ensure proper processing of scientific concepts through experiments.

Departmental Information

GOVERNMENT OF MADRAS.

EDUCATION AND PUBLIC HEALTH DEPARTMENT.

G.O. Ms. No. 1941, Education, dated 27th October 1966.

[Education—State Institute of Education, Madras—Publication of quarterly journal “Madras Education”—Orders passed.]

READ—the following papers :—

From the Director of Secondary Education, Letter Rc. No. 148620-B14/65, dated 5th December 1965.

From the Director of Stationery and Printing, D.O. No. Pr. 1/15025/66, B. Group, dated 4th October 1966.

Order—No. 1941, Education, dated 27th October 1966.

The Government permit the publication of the quarterly journal entitled “Madras Education” in English by the Director, State Institute of Education, Madras, subject to the condition that the work connected with the publication is attended to by the existing staff till the ban on employment of additional staff is lifted. The journal will be printed in the Government Press, Madras.

2. The expenditure should be debited to “28.—Education—F. General—W. Miscellaneous—A. General 71. Madras State Institute of Education”.

3. This order issues with the concurrence of the Public Works Department—*vide* its U.O. No. 101891-D3/66-1, dated 17th October 1966 and also the Finance Department—*vide* its U.O. No. 126321-PIX/66-1, dated 20th October 1966.

(By order of the Governor)

J. ANJANI DAYANAND,
Deputy Secretary to Government.

GOVERNMENT OF MADRAS.

EDUCATION AND PUBLIC HEALTH DEPARTMENT.

Memorandum No. 9536-E6/67-2, Education, dated 11th February 1967.

[Education—State Institute of Education, Madras—Quarterly Journal entitled “Madras Education”—Fixation of cost of copy and printing outer cover in double tint—Orders passed.]

Reference.—1. G.O. Ms. No. 1941, Education, dated 27th October 1966.

2. From the Director, State Institute of Education, Rc. No. 66-D1/66, dated 19th January 1967.

The Government approve the proposals of the Director, State Institute of Education, Madras, to fix the cost of a copy of the quarterly journal entitled “Madras Education”

brought out by the State Institute of Education at Rs. 2 per copy (Rupees two only) and also to have the outer cover printed by the Director of Stationery and Printing in double tint.

2. This memorandum issues with the concurrence of the Public Works Department,—*vide* its U.O. No. 10501-D3/67-1, dated 6th February 1967 and also Finance Department,—*vide* its U.O. No. 14271-PIX/67-1, dated 9th February 1967.

J. ANJANI DAYANAND,
Deputy Secretary to Government.

PROCEEDINGS OF THE DIRECTOR OF SECONDARY EDUCATION, MADRAS.

L.Dis. No. 124292-B10/65, dated 25th May 1966.

[SUB. : Pension—Minimum Pension of Rs. 20 per mensem to all retired teachers—Orders passed.]

G.O. Ms. No. 713, Education, dated 11th May 1966.

Copy communicated for information and necessary action.

R. SHANMUGHAM,
For Director of Secondary Education.

GOVERNMENT OF MADRAS.

EDUCATION AND PUBLIC HEALTH DEPARTMENT.

G.O. Ms. No. 713, Education, dated 11th May 1966.

[SUB. : Pension—Minimum Pension of Rs. 20 per mensem to all retired teachers—Orders passed.]

READ—the following :—

1. G.O. Ms. No. 713, Finance (Pension), dated 10th June 1964.
2. From the Accountant-General, letter No. P. A. III/T.P./683744, dated 14th September 1964.
3. From the Director of Public Instruction, letter Rc. No. 4062/B10/64, dated 11th May 1965.
4. From the Accountant-General, N.P.A. III/TP/101, dated 27th April 1966.

Order—No. 713, Education, dated 11th May 1966.

1. The Government direct that with effect from 1st April 1966 (i.e. pension for April 1966 payable on 1st May 1966) all teachers who are eligible, for a pension of less than Rs. 20 per mensem under the Teachers' Pension Scheme be granted a minimum pension increase equivalent to the amount falling short of Rs. 20 per mensem. The minimum pension is admissible to all categories of pensioners, and it will be allowed to pensioners who were drawing pension on 1st April 1966.

2. The minimum pension increase allowed with effect from 1st April 1966 shall not be paid during the period of re-employment.

3. The expenditure will be debited to " 65. P. & O., R.B. Pension to Teachers of aided schools and local bodies—Voted—After 1st November 1956 ".

4. This order issues with the concurrence of the Finance Department its U.O. Note No. 59895/E1/66-1, dated 10th May 1966.

(By order of the Governor)

J. ANJANI DAYANAND,
Deputy Secretary to Government.

Proceedings of the Director of Secondary Education, Madras.

D. Dis. No. 60081—G2-10/65, dated 26th October 1966.

GOVERNMENT OF MADRAS.

EDUCATION AND PUBLIC HEALTH DEPARTMENT.

G.O. Ms. No. 625, Education, dated 28th April 1966.

[Elementary Education—Pulavar (Pandithan) Certificate issued by the Madurai Tamil Sangam—Declared equivalent to the "Pandits" Examination held by the Tamil Sangam.]

READ—the following papers :—

From the Director of Secondary Education, Rc. No. 108301/B9/65, dated 8th December 1965.

From the Director of Secondary Education, Rc. No. 108301/B7/65, dated 30th March 1966.

Order—No. 625, Education, dated 28th April 1966.

The Government accept the recommendation of the Director of Secondary Education that the Pulavar (Pandithan) Certificate issued by the Madurai Tamil Sangam be considered equivalent to the Pandits' Examination certificate mentioned in Rule 13 of the Madras Educational Rules for the purpose of appointment of Tamil Pandits in Higher Elementary Schools subject to the condition that the holders of Pulavar (Pandithan) certificate should not be confirmed in service unless they have successfully undergone the training course conducted by the Annamalai University.

The Director of Secondary Education, is requested to submit necessary draft amendments to the Madras Educational Rules in due course.

(By order of the Governor)

J. ANJANI DAYANAND,
Deputy Secretary to Government.

GOVERNMENT OF MADRAS.

EDUCATION AND PUBLIC HEALTH DEPARTMENT.

Memorandum No. 93226/E2/66-1, Education, dated 24th September 1966.

[Elementary Education—Appointment of Tamil Pandits with Pulavar (Pandithan) Certificate issued by the Madurai Tamil Sangam declared equivalent to the Pandits Examination mentioned in note to rule 13 of the Madras Educational Rules—Revised orders—Issued.]

Reference—G.O. Ms. No. 625, Education, dated 28th April 1966, from the Director of Secondary Education, Rc. No. 60081-G2/10-65, dated 22nd August 1966.

In the circumstance stated by the Director of Secondary Education in his letter cited the Government direct that the words “in higher elementary schools” occurring in paragraph 1 of the Government Order cited may be deleted.

M. ABDUL RAHIM,
Assistant Secretary to Government.

Copy communicated in continuation of the Director's Proceedings Rc. No. 108301/B7/65, dated 5th May 1966.

K. MOHANARANGAM,
for Director of Secondary Education.

Proceedings of the Director of Secondary Education, Madras-6.

(Roc. No. 18525-M2/66, dated 20th January 1967.)

GOVERNMENT OF MADRAS.

EDUCATION AND PUBLIC HEALTH DEPARTMENT.

Memorandum No. 59772/E2/66-9, Education, dated 19th January 1967.

[Basic and Elementary Education—Aided Senior Basic Schools and aided Higher Elementary Schools—Employment of Tamil Pandits—Qualification—Prescribed.]

Reference—Letters from the Director of Secondary Education, Roc. No. 18525-M2/66, dated 4th June 1966, 4th August 1966, 22nd September 1966 and 21st December 1966.

In the circumstances the Government approve the proposal of the Director of Secondary Education that Oriental Title with Higher or Junior Basic Grade Trained Teachers Certificate or Oriental Title with Pandits Training Certificate may be prescribed as the minimum qualification for Grade II Tamil Pandits to be employed in Higher Elementary or Senior Basic Schools in the scale of Rs. 90-140.

J. ANJANI DAYANAND,
Deputy Secretary to Government.

Proceedings of the Director of Secondary Education, Madras-6.

Roc. No. 215303-G2/67, dated 13th February 1967.

[Education—Secondary Schools—Special fees—Levy and administration of special fees in Government (Board) High Schools—Instructions—Issued.]

It is observed that the rates of the special fees collected in the various Government (Board) Secondary Schools in the State are not uniform and in certain cases the rates of the special fees collected are far below the prescribed rate. It is essential to provide certain amenities and certain activities in every good high school. The special fees are intended to meet the incidental and other expenses for the activities under Literary Association, Games, Scouting, Excursions, etc. Money collected as special fees should also be made available for improving the Science Practical Work, Craft Work and for the proper improvement of the Pupils' Library of the school. If no special fees are collected all the activities and improvements will be neglected and the general tone of the school will be very poor.

The Heads of the Government (Board) Secondary Schools may be instructed to levy special fees within the maximum rates available and provide the amenities for their schools from out of the collections. The instructions issued in the Director's Proceedings Rc. No. 3497-G4-A/63, dated 22nd January 1964, in regard to the levy and administration of the special fees should be strictly adhered to.

M. D. PAUL,

Director of Secondary Education.

Proceedings of the Director of Secondary Education, Madras-6.

Roc. No. 12589-B14/67, dated 8th March 1967.

[Education—State Institute of Education, Madras—Publication of quarterly journal "Madras Education"—Subscription to the journal by Educational Institutions.]

Reference—

- (1) G.O. Ms. No. 1941, Education, dated 27th October-1966.
- (2) Memorandum No. 9536-E6/67-2, Education and Public Health Department, dated 11th February 1967.

The Government have permitted the publication of a quarterly journal entitled "Madras Education" in English by the Director of State Institute of Education, Madras.

This is a departmental publication devoted to the cause of education and primarily designed to improve the quality of education at primary and secondary levels by dissemination of valuable information, good school practices, experiments and projects, and will be very useful to Teachers of Secondary and Training Schools, Educationists, Inspecting Officers and others. The Director, therefore decides that all the Institutions should register themselves as subscribers to this Quarterly Journal. The Inspecting Officers are therefore requested to instruct the Heads of Secondary and Training Schools in their jurisdiction to subscribe to this journal.

This quarterly journal will be published in the months of January, April, July and October. The Government have fixed the price of the quarterly journal at Rs. 2 per copy. Hence the heads of schools and others are requested to send the treasury chalan for the annual subscription of Rs. 8 inclusive of postage to the Director of the State Institute of Education, Madras-34. The annual subscription of Rs. 8 should be remitted in a single lumpsum into the Government Treasury under the following budget head :—

“XXII. Education—F. General—(e) Miscellaneous—(iv) Other items (Estimate of the Director of Secondary Education) ”.

The remittance of the subscription by M.O. or Postal Order will not be accepted.

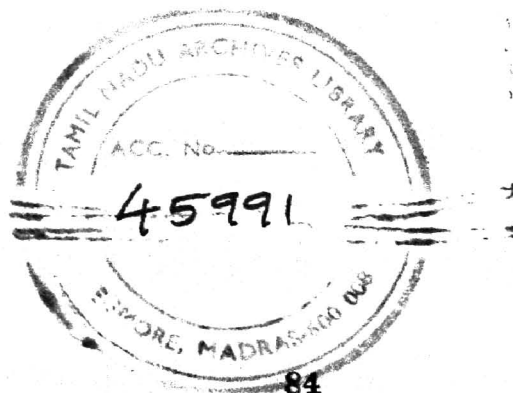
The receipt of these proceedings may be acknowledged.

M. R. CHANDRASEKHARAN,
For Director of Secondary Education.

LEARNING

A little learning is a dangerous thing ;
Drink deep, or taste not the Pierian Spring ;
Their shallow draughts intoxicate the brain ;
And drinking largely sobers us again.

Pope—Essay on Criticism.



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