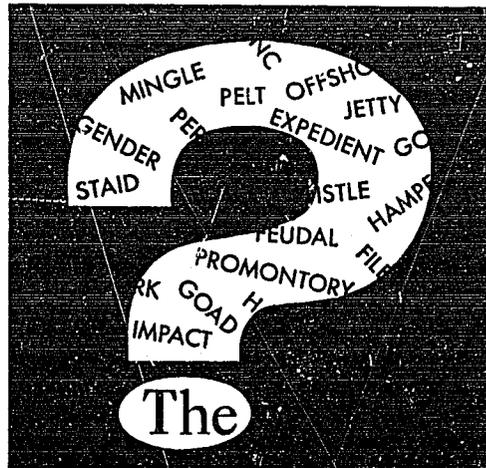


*the BC teacher*

APRIL - 1962  
VOL. 41 - NO. 7

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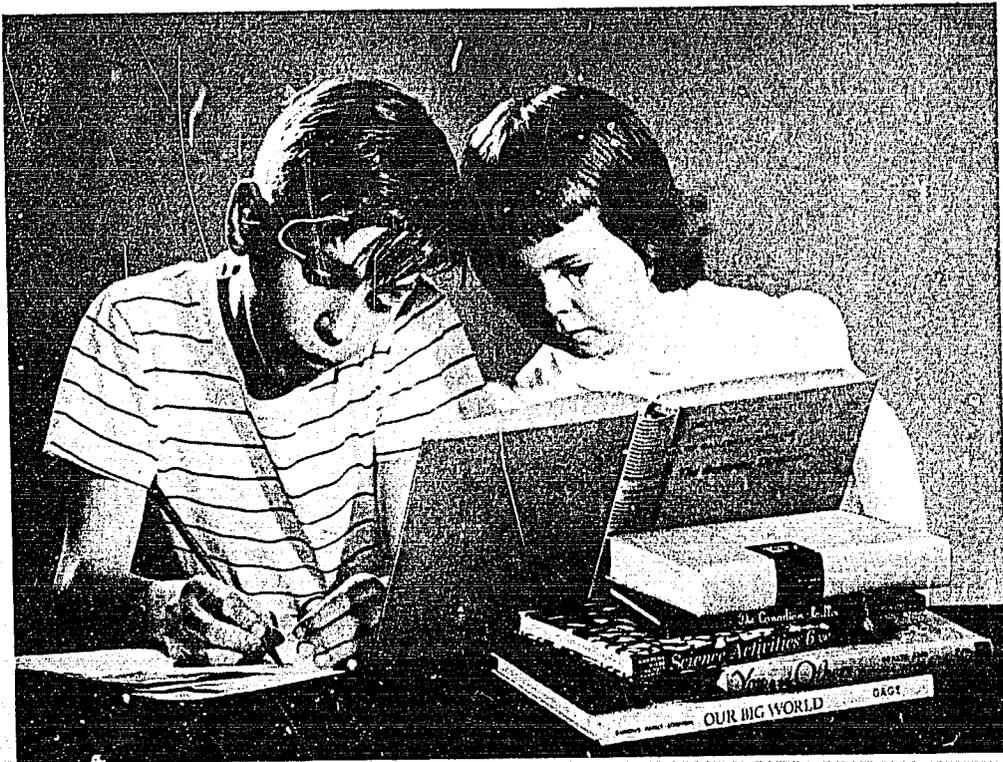
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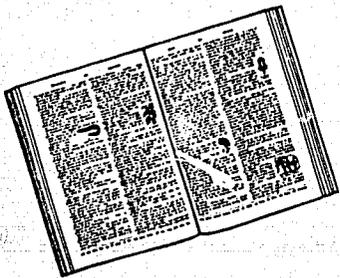


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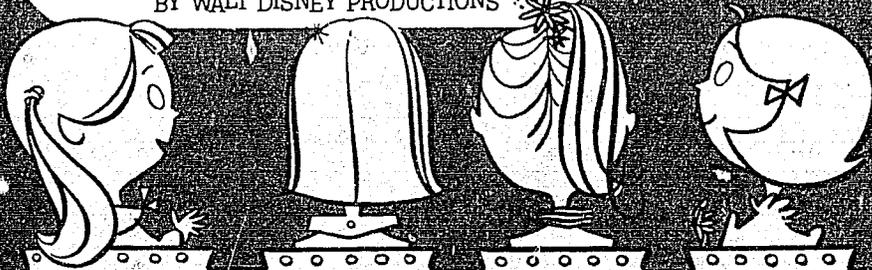
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# the BC teacher

## IN THIS ISSUE

In this issue you will find a report of the Canadian Conference on Education, commencing on page 282. Immediately following, on page 285, are excerpts from an address given by Dean N. V. Scarfe on the Aims of Education. On page 289 we have printed the notes from which Mr. Aitchison spoke during a panel discussion of the aims of education.

Mr. John Taylor has sent us another report from Sarawak, this time on the educational system of that country. See page 291.

There has been a good deal written about Programmed Learning in the past few years. Dr. F. G. Robinson has been studying the reports, and on page 294 you will find the first section of a two-part article on this research material.

On page 300 you will find a picture-story of the processing of a claim by the Provincial Teachers' Medical Services.

J. A. Young, who spent three years in Sarawak, describes the desperate need of African and Asian countries for teachers (and doctors and dentists). See page 302.

## THE COVER PICTURE

The picture this month is of the Thompson River, at Kamloops. The picture was supplied by the Photographic Division of the British Columbia Department of Recreation and Conservation.

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# Charlesworth Memorial Scholarship

Applications for the Charlesworth Memorial Scholarship are called for by the British Columbia Teachers' Federation.

Conditions of the Scholarship are:

1. The award is an annual scholarship of \$200.
2. The scholarship is open to the son or daughter of any present, retired, or deceased member of the British Columbia Teachers' Federation.
3. The award is made upon the basis of demonstrated ability and with some consideration of need.
4. The scholarship is available to students proceeding to the College of Education, to any other faculty of the University, or to any other institution of higher education.
5. Applications should be made in writing to the General Secretary of the British Columbia Teachers' Federation, 1815 West 7th Avenue, Vancouver 9, B.C., on or before August 15, 1962.
6. Application forms are available from the Federation Office.

## FEDERATION NON-CREDIT COURSES

Offered by the Professional Growth through In-service Education Committee in co-operation with the University of B.C., Victoria College, and the Primary and Mathematics Teachers' Associations.

### At the University of British Columbia Summer School

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Director: Mr. G. R. Gravlin, member of the Departmental Arithmetic Revision Committee, Burnaby Elementary Principal.
4. Preparations for Teaching the New Course in Grade VIII Mathematics.  
Director: Mr. L. Costley, member of the Departmental Mathematics Revision Committee, Burnaby Secondary Supervisor.

### At the Victoria College Summer School

1. Modern Arithmetic (Primary-Cuisenaire Method).  
Director: Mrs. E. Huber, Victoria.
2. Primary Reading and Language.  
Director: Mrs. L. Hanney, former Burnaby Primary Consultant.

At the time of going to press all details of dates and times for the above courses had not been finalized. Teachers interested in more information about any of the above short courses should write to the

**Federation Office,  
1815 West 7th Avenue,  
Vancouver 9, B.C.**

## The Canadian Conference

**D**ID THE CANADIAN Conference on Education, held in Montreal from March 4 to 8, make a significant contribution to education? Was the cause of education in Canada advanced by the Conference?

One of the aims of the organization which arose out of the 1958 Conference on Education is "To improve communication among the segments of Canadian society interested in education by bringing them together in The Canadian Conference on Education, so as to ensure an exchange of ideas and information between the public and those responsible for the direction and encouragement of education at all levels in Canada."

The Montreal Conference attracted 2,000 people from all parts of Canada, of whom 77 were from British Columbia. Educators from elementary school to university level did exchange "ideas and information" with the public. But to what avail?

As one British Columbia delegate said, "Conferences, especially large ones, do not find solutions to problems; they can only identify them. They do not remove differences; they emphasize areas of agreement. In my opinion, the Canadian Conference performed these functions with distinction and great value."

Much of what was said at the Conference was philosophical and vague. In spite of this, delegates clarified their own thinking on many subjects. The Conference experience undoubtedly extended the interest in education of many of the participants, who returned home with a renewed determination to increase their efforts in working for an improved educational system.

Those of us directly involved as educators must promote activities which will properly channel this enthusiasm for the benefit of education. In British Columbia the B.C. Council on Education can assist.

The B.C. Council on Education is comprised of the representatives of some forty-five provincial organizations. The Council should carefully consider all the recommendations arising out of the Conference, determine which of these have particular application in British Columbia, and work for their implementation. In this we can readily proffer the full co-operation of the B.C. Teachers' Federation.

The Canadian Conference provided the first opportunity for many delegates to participate in a bi-lingual gathering. All sessions were conducted in English and French, with simultaneous translation provided.

For those in attendance, the problems of Canada's dual culture took on new meaning as English-speaking and French-speaking delegates worked side by side. The delegates from French-Canada demonstrated a much greater concern over these problems than did delegates from the rest of Canada. They left the impression that they felt obliged to embark upon a campaign to convince the rest of Canada that concerted effort must be made to maintain Canada as a bi-lingual nation. We in B.C. are too far removed from Quebec to be aware of how concerned many French-Canadians are that their culture be not lost in any assimilation. Canada has always been a bi-lingual, multi-cultural nation, with English and French dominating, and we are happy to have it continue this way. ★

### School Guidance and Counselling Workshops

For teachers who have been asked to accept guidance and counselling duties, but who have had little or no preparation in this field, two non-credit summer workshops have been planned for this year:

- (a) At Victoria College, July 9-20, afternoons;
- (b) At the University of British

Columbia, August 6-10, all day.

These follow the successful workshop held last year at Victoria College. Both will cover essentially the same ground. Full use will be made of specialist consultants in such broad areas as group and individual counselling, group testing, educational and vocational

guidance, and mental health. Coordinator for both workshops will be P. J. Kitley, who is in charge of the Counselling and Guidance Services of the Department of Education. For details, consult summer school bulletins. Since registration will be limited, those interested are advised to apply early.

# A National Look at Education

*Two thousand delegates met in Montreal for the Second Canadian Conference on Education*

THE SECOND Canadian Conference on Education was held in Montreal from March 4 to 8, 1962. Two thousand people from all walks of life and geographical areas in Canada assembled to hear addresses and participate in group sessions on various education topics. British Columbia was represented by 77 delegates — 8 teachers, 16 trustees, 10 U.B.C. faculty members, 2 district superintendents, 4 parent-teacher representatives and 37 others.

The first Canadian Education Conference was held in Ottawa in 1958 with the Canadian Teachers' Federation providing much of the leadership. Delegates to the 1958 Conference recommended the formation of some continuing organization and the Canadian Conference on Education resulted. An office was established in Ottawa. Miss Caroline Robins, a past president of both the Saskatchewan Teachers' Federation and the Canadian Teachers' Federation left her teaching post in Saskatoon to serve as Executive Secretary. Seventy-four national organizations — the Who's Who of Canadian Organizations — became the sponsors of the Conference. The National Committee, chaired by Kurt R. Swinton, President, Encyclopaedia Britannica of Canada Ltd., and the Executive Committee, chaired by Max Swerdlow, Director of Education, Canadian Labor Congress, provided the general direction.

The Conference accepted as its Aims and Objectives the following:

1. To improve communication among the segments of Canadian society interested in education by bringing them together in The Canadian Conference on Education, so as to assure an exchange of ideas and information between the public and those responsible for the direction and encouragement of education at all levels in Canada.
2. To help create wide public understanding and support among Canadians for the educational development which is essential to meet the needs of our growing nation.
3. To encourage appropriate efforts designed to solve the problems created by these needs, such as the provision of adequate school and university facilities.
4. To keep informed about emerging needs of education in Canada, and, in co-operation with the authorities concerned, to tabulate these needs so that actual achievement can be measured.
5. To offer, as appropriate, to co-operate in the promotion of activities designed to arouse public interest in education.

And so the Second Conference.

The Conference program centred around nine aspects of education which had been featured in study booklets distributed in advance to all delegates. All proceedings were in French and English, with simultaneous translation provided.

Dr. Claude T. Bissell, president of the University

# B.C. Educator Blasts 'Obsolete' System

## Teachers' Freedom Wanted

By GORDON PAPE

The president of the British Columbia Teachers' Federation yesterday blasted educational bureaucracy in no uncertain terms and made a strong plea for a drastic revision of the role of the teacher in Canadian schools.

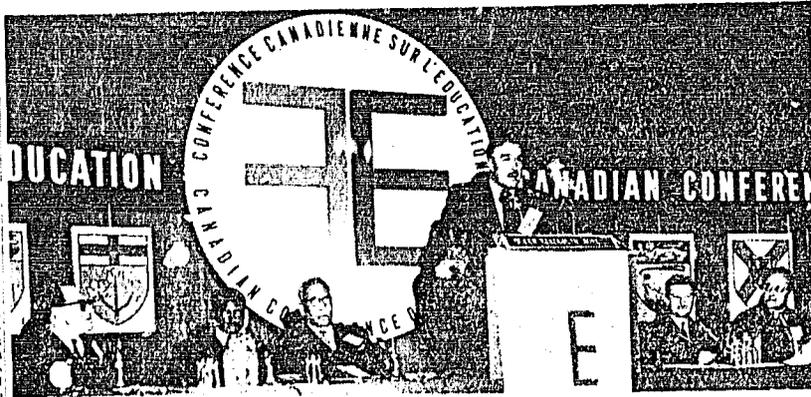
Speaking at a panel discussion on "The Aims of Education," Kenneth M. Aitchison told delegates to the Canadian Conference on Education that more than "pious generalities" are required if workable education aims are to be achieved.

"Education systems are too centralized," he said. "Too much authority is vested in Departments of Education and not enough in local authorities."

Mr. Aitchison suggested that if all the aims of education could be combined into one, that one would probably be "to promote the overall development of each individual intellectually, physically, emotionally, and morally, to the limits of their respective potentials."

### Specific Faults Hit By Speaker

Yet in trying to do this, he charged, we have large classes with



(Gazette Photo Service)

CONFERENCE ON EDUCATION: Education in the Life of a Nation was the subject of a public meeting sponsored by the Canadian Conference on Education last night. Here Premier John Robarts of Ontario addresses the more than 2,000 delegates and visitors. Other speakers are, left to right, Hon.

German Arciniegas, Columbian Ambassador to Italy and former Minister of Education, Hon. Ibrahim Ba, Minister of Youth for Senegal, Dr. M. S. Mehta, principal and vice-chancellor of Rajasthan State University, India, Hon. Paul Gerin-Lajoie, Minister of Youth for Quebec, and Msgr. Jacques Garneau.

## Columbian Tells Conference:

# Nazi 'Techniques' Useful To West

By GORDON PAPE

A Columbian diplomat last night told a public meeting of the Canadian Conference on Education

used the device of propaganda for furthering their designs. Dr. Arciniegas told the audience that many countries were

Because of the new role education now plays, Dr. Arciniegas

adopts the role of a catalyst, he said. "Its mission is not to propose techniques or to formulate theories, but rather to dis-

## New Aim, Theory Urged

By HERBERT LAMPERT

A British Columbia educator yesterday bluntly charged that present-day education systems are "obsolete," using the term merely as a storehouse of facts instead of developing critical and imaginative intellectual faculties.

Dr. Neville Scarfe, dean of education at the University of British Columbia, said in a keynote speech at the 1962 Canadian Conference on Education that public dissatisfaction with today's schools is well based. What goes on in them "is much more obsolete than many of the critics have thought."

The aims of education, he told 2,000 delegates in the Queen Elizabeth Hotel, "are still those of the traditional, authoritarian, conformist educators who saw schools, in the last century and at the beginning of this, as a great means of unifying the nation and bringing some uniformity to very diverse groups of people."

"They did not realize 50 years ago that mass production, mass media of communication, and the tremendous speeding up of transport, would bring about a unity and a conformity in the nation far faster and far more effectively than they could ever

of Toronto and chairman of the Canada Council, gave the keynote address on the opening evening. He gave several answers to the question, "Why at this time in our history should there have developed a great and almost obsessive concern with education?"

In part Dr. Bissell said, "In this heady atmosphere in which the schools and universities now live, it is more important than ever to concentrate on our immediate task, which, I take it, is the systematic, imaginative exploration and study of those areas of human knowledge by which man has raised himself above the animal. It is well, as Dr. Phillips warns us, not to embrace vain goals of training for leadership, to be careful about equating intellectual excellence with moral virtue, to avoid talking about curricula as if they were a new and deodorized version of Holy Writ. While watching the expanding horizons that surround us, our job in the schools and universities is to concentrate on the formal tasks of instruction and investigation. There is not the slightest doubt in my mind that we shall receive more and more resources. If the suffocating burden of armament is ever reduced or eliminated, education may well become the primary concern of the federal, as it is now of the provincial, government. One great task still lies

largely before us, to which this conference has made and will continue to make a contribution: the emphasis upon the continuing process of education, upon the interdependence of those who work on all levels."

Dean Neville Scarfe of the College of Education at U.B.C. presented a major paper on "The Aims of Education in a Free Society." Dean Scarfe's address was well received and is featured elsewhere in this issue of our journal.

B.C.T.F. President Kenneth M. Aitchison made an excellent contribution as a member of a panel on the aims of education. His presentation was effective and every word he uttered was directly to the point — a happy contrast to several verbose speeches in other parts of the program.

The Montreal Star featured Mr. Aitchison's address with the headline "Pious Views Anger Teacher." The lead paragraphs were: "The Canadian Conference on Education was brought down to brass tacks yesterday by a 35-year-old high school teacher from British Columbia bent on demolishing 'pious generalities.'"

"Kenneth M. Aitchison, of Burnaby, attacked the conference for deliberating murkily on the forms of education and sidestepping practical questions. He said that authority over education must be given in

large measure to teachers of professional calibre. Only in this way will society be able to develop the full potential of every student."

*The Montreal Gazette* headlined Mr. Aitchison's address with "Teachers' Freedom Wanted." Its lead paragraph was, "The President of the British Columbia Teachers' Federation yesterday blasted educational bureaucracy in no uncertain terms and made a strong plea for a drastic revision of the role of the teacher in Canadian schools."

The text of Mr. Aitchison's address appears elsewhere in this issue.

Other major speakers included Very Rev. Henri Légaré, Rector, University of Ottawa and President, National Conference of Canadian Universities and Colleges; Dr. M. S. Mehta, Principal and Vice-Chancellor Rajasthan State University, India; Hon. Ba Ibrahim, Minister of Youth, Senegal; Hon. German Arciniegas, Colombian Ambassador to Italy; Dr. Wilde Penfield, noted neuro-surgeon; Dean Francis Leddy, Vice-President, University of Saskatchewan and Chairman, Canadian National Commission for UNESCO.

#### The Forums

The most productive part of the Conference program was the forums. Background information in the form of study guide booklets was distributed prior to the Conference. At the opening session of each forum short presentations were made and then the delegates divided into several discussion groups. The small groups reported back to a plenary session with the small group reports being consolidated for later presentation to the whole Conference.

B.C.T.F. General Secretary C. D. Ovans chaired the forum on Financing Education and made the report of this forum to a general session of the Conference. Miss Mollie E. Cottingham of the Faculty of Education, U.B.C., and B.C.T.F. Past-President, served as a rapporteur in the forum on The Professional Status of Teachers. Other forums dealt with The Development of Student Potential, New Developments in Society, Continuing Education, The Citizen in Education, and Education and Employment.

The B.C.T.F. delegates were assigned so that at least one delegate attended each forum. In addition to Mr. Aitchison and Mr. Ovans, the B.C.T.F. delegation consisted of First Vice-President H. M. Palsson, Second Vice-President J. W. Stewart, Secretary-Treasurer F. J. Cairnie, Chairman of the Education Finance Committee D. J. E. Smith, Chairman of the Special Membership Committee B. C. Gillie, and Assistant General Secretary Stan Evans.

#### Assemblies

Eight areas of education were the subjects of special assemblies. These were Physical Fitness, Science and Mathematics in Secondary Schools, Television as a Teaching Aid, Programmed Learning, Learning a

Second Language, Why Research in Education?, Metric Standardization and English Spelling Reform.

Among the recommendations arising out of the Forums were the following:

1. The minimum requirements for both elementary and secondary school teachers should be a university degree, one year of further professional training, and some specialization in the field chosen. Remuneration should be such as to enable a teacher to meet the social standards of a professional person.

2. More stringent methods should be adopted to prevent undesirable candidates from entering the teaching profession, and to remove poor teachers already in it.

3. Minimum academic qualifications should be established for school trustees, whose honoraria should be sufficient to compensate for out-of-pocket expenses.

4. "Junior colleges" should be developed as the next step for high-school graduates, and become the transition between high school and university.

5. More facilities at the secondary and post-secondary school level are required for developing the technical skills boys and girls require for employment in business and industry.

6. Canada requires a "crash program" to develop a more competent work force with "built-in mobility" to meet labor-market demands through certification on a basis acceptable throughout the country.

7. School buildings paid for from public funds should also be used to the maximum extent for continuing (adult) education and should be planned with that use in mind.

8. Provincial programs of subsidies, bursaries and tax deduction for educational purposes should be broadened to include adequate provision for continuing (adult) education.

9. The Government of Canada should establish a fund from which any student who requires financial assistance may obtain interest-free loans to attend an institution of post-secondary learning.

10. Provincial laws should be amended, where necessary, so that either of Canada's two official languages may be used as the language of instruction in public schools, the decision being based on the majority wish of the community.

11. Canadian history should be taught in such a way as to foster a greater mutual understanding between both major cultural groups.

12. Interprovincial visits and other cultural relationships between Canadians of English and French expression should be promoted more actively to improve mutual understanding and to derive greater advantage from Canada's bicultural identity.

The University of Toronto press will publish the Addresses and Proceedings of the Conference within a few months. When this is available, *The B.C. Teacher* will carry an announcement as to the cost and method of ordering copies.★

# The Aims of Education

Excerpts from an address given at the Canadian Conference on Education in Montreal, March 5, 1962.



Dean N. V. Scarfe,  
College of Education,  
University of British Columbia.

N. V. SCARFE

**T**HE THESIS TO BE propounded today is that schools and institutions of higher learning must primarily be places where young people are encouraged to think creatively and constructively for themselves in ways that will help them deal effectively with the novel and challenging problems which they now face and must also face in the future. Schools are protective institutions where children can debate, discuss and propose creative and unorthodox ideas without doing any harm to anyone but with great profit to themselves. For a short space of time, children can be freed from some of the adult restrictions of the outside world, and permitted to explore the exciting realm of refreshing ideas just as the scientist in the university may sometimes undertake research into the unknown.

Whereas conservative caution, traditional virtues and conformity to the law are properly taught in the home, in the church, in the community, by society at large, and, of course, by the school, it is the classroom teacher who has the added special function of developing creativity, initiative, and originality, by encouraging adventurous curiosity and enthusiasm for research types of activity. While the school should promote individuality and the development of the diverse gifts of each human being, all the agencies outside the school seem to combine to produce conformity. To the school is delegated the task of devel-

oping creative diversity and thoughtful individualism. It must foster curiosity and the enquiring mind. It must train future citizens to be questioning and critical of much that they see or hear or read. Destructive criticism is, however, quite unimportant. It is much more important to be constructively creative. We want our young people to be enthusiastic searchers for the truth not energetic fault-finders.

## How Children Learn

We know a number of things about how children learn. We know, for instance, that they learn most effectively when they devote energetic attention to important problems. We know that they become diligently thoughtful when they are actively investigating real and concrete problems, the solution of which to them seems worthwhile. We know that they learn most effectively if they can persist with concentrated effort for a considerable length of time. We know that children learn best when the problem or topic of investigation captures their interest, arouses their curiosity, and develops their enthusiasm. We know, too, that children differ widely in ability and interests. We realize, therefore, that it is the business of the school to vary its offerings and procedures to make sure that as many children as possible devote concentrated attention and thought to important and challenging problems, bearing in mind

that not all worthwhile problems or useful ideas are interesting to begin with. It is the teacher's job to make them interesting, attractive and educationally valuable.

#### **Motivation**

Most schools of psychological thought agree that behavior which is rewarding is more likely to recur. They also agree that providing the opportunity for fresh, novel and stimulating experiences is the kind of reward which is very effective in motivating learning. A. N. Whitehead said many years ago that: "For successful education, there must always be a certain freshness in the knowledge dealt with. It must either be new in itself or it must be invested with some novelty of application to the new world of new times. Knowledge does not keep any better than fish."

Surely then, with proper attention to learning theory there is very little in school that need be meaningless or boring. There are plenty of exciting and worthwhile things to learn. Few teachers need be consistently dull or lacking in enthusiasm. Few lessons need be unstimulating or unprovocative. Learning should normally be a very profitable experimental enquiry offering exciting rewards for diligent thinking and creative imagination.

#### **Education is Not Easy**

Education can never be made easy. There is no labor saving device which can save the child the effort of thinking for himself. Though instruction can be mechanised education cannot. Wisdom and virtue cannot be given to anyone. They come unsolicited perhaps, but only after a prolonged quest for knowledge and understanding. The art of education is to arouse the child's natural desire, needs, interests, curiosity, in order to release the maximum energy and guide it towards the consideration of the important problems of our time and of the future. Since children spend greatest effort on those activities which interest them most, all such activities should be turned to intellectual profit and thought-provoking value by an imaginative teacher. The purpose of the teacher is to see that a maximum amount of high quality thinking goes on in a given time — far more than normally goes on now. This is not achieved by mere regimentation, prescription, compulsion, or by any direct frontal attack — but by subtlety, ingenuity, persuasion, stimulation and by working through the things that naturally challenge the inquisitive prodigings of the child's mind.

#### **Education is Self Generated**

Education is something that the child must do for himself. Teachers cannot add to the power of the child's mind any more than they can add one cubit to his stature. The child must do all his thinking for himself. Teachers can only arrange conditions which stimulate, foster and maintain a desire for mental

activity. Without desire no valuable intellectual effort is forthcoming. It needs consummate artistry and scientific skill to arrange conditions in school so that children naturally want to learn.

There is little known or proved educational value to be derived from forcing children to undertake boring or apparently meaningless tasks. This does not mean that any human being can avoid harshness, drudgery or boredom sometimes, but let us not glorify them as educationally desirable.

We must renounce the fallacious notion that it is good educationally for children to be made to do things they hate. There is little educational advantage in pain, failure, threats of punishment, or appeals to fear.

#### **What Else Seems to Curtail the Teacher's Freedom?**

Many, many teachers are capable of teaching far better than they do, but they resort to orthodox and stereotyped practices because they lack responsibility, and because these are what the system seems to expect of them.

Another reason why the freedom of many teachers is curtailed lies in the inadequate professional education they have received. They are, therefore, hemmed in by ignorance and lack of understanding. All teachers should have as long and as rigorous a preparation for their profession as doctors, architects, engineers, or lawyers. This is just as true for those who teach in kindergarten as those who teach Grade XIII. Candidates for the teaching profession must be educated men and women as well as trained teachers. Maturity and wisdom as well as a complete knowledge of their area of specialization are required of every teacher. Furthermore, each one needs to have sufficient training in psychology and sociology to know why he is teaching the way he is.

The freedom of the teacher is restricted because the curricula and the textbooks are usually prescribed on an "industry wide basis" by remote authorities who cannot provide wisely for every situation.

In many instances, but certainly not in all, the effect of inspectors and supervisors is to restrict the freedom of teachers.

Teachers have inadequate legal powers vested in them.

Parental criticisms are sometimes publicized unduly by school boards, principals or superintendents and taken so seriously that some teachers feel intimidated, if not persecuted.

There have been occasions, more particularly in the past, when school boards and school trustees have exercised a curbing influence on teacher freedom and responsibility.

Since imaginative and creative teaching is very demanding, fatiguing, and time consuming, few teachers find it worthwhile to pursue it to a point where it might be questioned by an old-fashioned inspector or criticized by a conservatively-minded parent.

Reward comes more readily to the cautious than to the adventurous teacher.

Perhaps one of the most obvious reasons why the freedom of teachers is restricted lies in the large size of the classes they have to teach and the number of different classes to be met in a given week. Any teacher who must teach five hours a day to five different classes of 35 children will find that he is exhausted at the end of the day and will find it impossible both to prepare good lessons for the following day and to mark the exercises or essays completed during the current session.

Large classes in small classrooms make it impossible to use the most up-to-date facilities and equipment necessary for excellent education. Most classrooms are built and equipped solely for the study of textbooks; they are not designed for any other form of enquiry.

The excessive emphasis put on certain types of examinations and the frequent incidence of these examinations exerts a tremendously restrictive influence. Formal examinations occupy a very large portion of the secondary school year so that the amount of time during which children are learning new things is seriously reduced and is far less than many people suppose. Indeed, the passing of examinations has become for many teachers and children the only purpose of school attendance. Education thus becomes a subsidiary, incidental, almost accidental, concomitant to the grind for examination success.

In general, therefore, teachers feel that they are inadequately trusted and are not given sufficient scope to carry on teaching in ways which they know to be better than the orthodox.

Before spelling out more clearly how our future education should look, it seems necessary to distinguish between instruction and teaching. An instructor, like a preacher, is a performer and an informer. He tells a listening, attentive audience what they should know, how they should behave, what they should think. He presents problems and questions and then tells the answer with careful explanation and demonstration. He gives plenty of practice and drill. He relies mainly on memory and habit.

An instructor is often convinced, quite erroneously, that there is educational value in regimenting one's self. He feels, unjustifiably, some puritanism is a good training for future life and that a certain amount of asceticism builds character.

Instruction is authoritarian, or even patriarchal. It leads to conformity and preserves the status quo. It is a method of handing on, in easy doses, the distilled and accumulated wisdom and skill of the past. Instruction is a means of reproducing the type. It is designed to inculcate respect for tradition, for what society in the past has judged to be good, true, right and beautiful. Instruction tends to produce well-informed conformists. It satisfies the conservative side

of human nature only. This is, of course, by no means unimportant.

Instruction can, of course, be done by mechanical means, through mass media, through books, and simply requires that the learner be able to read. Instruction as described above does not, however, produce an educated person. It may produce a well-informed person, but not a thinker, not a doubter, not an originator. By itself it is of little use for the future.

Teaching, on the other hand, is something entirely different from instruction. Teaching is a co-operative rather than an operative art. It exemplifies a special kind of human artistry which gets pupils to think for themselves, not so much by telling them answers as by asking questions. It turns pupils into scholars, i.e., students who are not passively listening or patiently learning by heart what the textbook says but actively investigating original sources of information and data by experimental methods in order to draw their own inferences and their own conclusions.

The teacher is a resource person, a guide, a maturer student whose insights help children to open cultural windows. He suggests other approaches and other points of view. A teacher is a subtle adviser whose primary purpose is not to condition, indoctrinate or constrain, but to free young learners from the outworn trappings of prejudice, tradition and custom, in order that they may arrive anew and for themselves, by thinking, at the great truths of the ages and at new insights.

. . . A great teacher is one who can help scholars carry over their newly acquired insights to the improvement of the power of their mind, the quality of their character and wisdom. This final carry over from acquired ideas to mind quality and power is the fundamental part of education and the activity for which a personal teacher is most necessary.

#### Information May Be Factual Only

. . . Education is not just informing, nor is it simply acquiring or mastering or achieving or accumulating. Education is a product rather than a process. It is power, quality, richness, and ability to think and act wisely and virtuously. Education bespeaks freedom, independence, assurance, confidence, a sense of perspective, powers of discrimination and judgment. It refers to quality of mind and conduct more than of the possession of a certain body of facts or skills.

Education, of course, cannot happen without information, or without skill. Information is essential to education, just as food is necessary for bodily growth. Information and education must go on together just as bodily growth and food consumption must go on together.

All too easily schooling becomes fact-giving and fact-getting, but the mental processes involved in the acquisition of facts about things as they are, are of a low order in the range of human intellectual potential.

The conclusion to this study of teaching and education is that instruction alone will no longer suffice to help our future citizens face the problems of the future. Simple acquisition of the 3-R skills or the accumulation of information will no longer be satisfactory by themselves. Instead, future citizens must be educated to think and speak for themselves, to learn the skills of argument analysis, of logical deduction, of critical appraisal and of experimental enquiry.

#### Education Requires Creative Activity

Since constructive change in the future will be even more imperative than it is today it seems obvious that schools must concentrate more on the creative than the conservative thinker in school; on freedom more than conformity. The ingenious, the thoughtful and the courageous must be encouraged.

This does not mean any denial of traditional values. Quite the contrary, it means rather that schools start where other value sponsoring agencies leave off. Common moral standards and codes of behavior are basic. These the schools must reinforce but preservation of the past or of the status quo is not their major function any more. Schools should not be devoted primarily or exclusively to passing on the accumulated wisdom of the past. This is already enshrined in books for all to read. They must perform a unique intellectual function which other agencies cannot easily undertake, namely, to use the wisdom of the past to stimulate thinking and to adventure with new ideas and with recent research findings. Schools must set children free to explore, to investigate, to experiment and to construct. They must be essentially creative. Almost all the other social forces are conservative by their very nature. That is why schools must foster creativity and why children must actively pursue education in laboratories and studios working with many more sources of information than books, and, many more media of expression than words.

#### A Creative Philosophy

It seems appropriate to end this address by stating succinctly my own convictions about the aims of education in our schools:

1. The function of the teacher in school is to select and arrange materials and conditions which encourage and stimulate future citizens to reflect, contemplate, reason, cogitate, and think diligently, critically, constructively and creatively for themselves and by themselves about the world of man and nature.
2. In order to think effectively future citizens need
  - (a) to be alertly aware of and curiously inquisitive about the world of nature and man around them; and
  - (b) to acquire the mental skills necessary to face new problems courageously, constructively, and creatively.
3. In order to become effective future citizens, schools should encourage the maximum development

of initiative, independence, and responsible use of freedom in their pupils.

4. In order to promote maximum mental growth and health, schools should concern themselves with the all-round development of the child—in particular, much care must be taken of emotional, aesthetic and artistic development. Intellectual, physical and spiritual growth depend on the care devoted to emotional harmony, balance and well being.

5. Education is an active, exploratory process of discovery, self-development and fulfilment. It is stimulated by using the child's native curiosity, love of adventure and experiment, and his desire to create and construct for himself. Education is successful chiefly when it deals with modern problems which have real and immediate significance for the child. The emphasis must always be on treading new ground, on possible future problems rather than on going over well trodden ground or recounting past difficulties.

6. Education implies the development of future citizens who welcome change and are willing and able to modify society progressively and intelligently for the benefit of all mankind.

7. Education is not *primarily*:

- (a) Handing on the heritage of the past.
- (b) Moulding citizens to a type.
- (c) Acquisition of factual information.
- (d) Testing, by recall, of acquired facts.
- (e) Training of regimented minds who accept traditional behavior and thinking uncritically.
- (f) A passive absorptive process.

8. An educated person is one for whom facts, knowledge and particularly experience have stimulated thinking so that independent ideas, conclusions, attitudes and wisdom have developed to produce an harmoniously balanced personality devoted to freedom, honesty, impartiality, tolerance and human virtue. An educated person not only knows facts, but has thought about them, has associated them into ideas, patterns of thought, connected argument and generalizations. Further the educated person has assimilated the ideas and principles derived from thinking about facts and experiences and is able to use and apply these ideas to understanding the world and himself. He has further developed attitudes, character, culture, maturity and wisdom. His mind has developed power, efficiency and humanity.

Teachers must also be given a far greater measure of freedom and trust than they now enjoy, so that they can set an example of enthusiastic enquiry, independent initiative, and courageous creativity. Teachers must have much smaller classes and more ready access to a great variety of teaching materials, aids and apparatus.

Nothing, however, is more important than the quality of the person who becomes a teacher in the classroom. ★



## The Substance, Not the Form

K. M. AITCHISON  
B.C.T.F. President

*These are the notes from which Mr. Aitchison spoke as a member of a panel on the Aims of Education at the Canadian Conference.*

**A**IMS ARE A PUBLIC statement of goals—to be worked towards, not necessarily reached.

—Any statement of aims must be all things to all people—therefore, the statement must be very general and of little assistance in determining procedures.

—Becomes a statement of pious generalities, to be read once, agreed with, and then forgotten.

—Often drafted by a person or persons up top in the educational hierarchy — teachers feel no real identity with the statement.

—Many obstacles stand between the statement of aims of education and their realization.

The basic problem is that our educational systems are too centralized — too much authority is vested in Departments of Education, not enough in local authorities.

—The provincial authorities draft a statement of aims, then tend to substitute the form for the substance of education. They concern themselves with the trappings of education, forgetting the aims.

—They tinker with such practices as the school organization, the alignment of subjects, the report cards, the length of the school day or year, etc., and in concentrating on the form of education, they tend to lose sight of the objectives, and in fact may subvert them, albeit unintentionally.

—For example, if all the aims of education could be combined into one, that one would probably be

something like this: "To promote the overall development of each individual intellectually, physically, emotionally, and morally, to the limits of their respective potentials." And how do we go about developing each individual?

1. We put students in large classes where they cannot obtain individual attention.

2. We use the lock-step grade system, so that all students must progress at essentially the same rate.

3. We give lip service to education for every man's child, yet we in fact want to confine education to the academic subjects. For example, parents and employers place great stress on the university preparatory course. Thus we force students to take courses they are not suited for, and have little if any interest in.

4. We work hard to keep students in school long after they have reached the limits of their education, or after they have lost all interest in school, and have no motivation to accomplish anything in school.

5. We say we want to develop in each student a questioning mind, and the ability to think critically. Yet we really want no such thing. We want young people to conform to our adult way of thinking. Indeed, the public is very ready to criticize courses involving discussion as a waste of time — presumably because the students do not memorize a collection of

facts. Yet these discussions often are most effective in developing critical thinking.

6. We allow Departments of Education to prescribe courses in detail, often in so much detail as to stifle local initiative and variation.

7. We go overboard on examinations to the point where the exam becomes an end in itself. So powerful a pressure is the Departmental exam that it forces all teachers to use basically the same approach to a course. Concepts are taught for no other reason than that the odds are very good that the concepts will be on the exam.

8. We carry this examination phobia one step farther, and judge teachers almost entirely by how many of their students pass the Departmental exams as if education consisted merely of memorizing facts and regurgitating them when called upon to do so. Of course, if the chief aim of education is to acquire a body of facts, presumably the emphasis on examinations is justifiable.

9. We allow Departments of Education to prescribe only one textbook for a course (another phenomenal pressure towards conformity), and we allow governments to invest such huge sums in textbook rental schemes that we can't get rid of unsatisfactory texts. Educational value is subordinated to financial value.

10. We snow our teachers under with such an avalanche of clerical and other non-teaching tasks that they cannot get time for contemplation and self-evaluation. Moreover, we fill their schedules so full of courses and extra-curricular activities, that they are hard put to it to find time to continue their own reading and learning. They become so immersed in the details of the day to day grind, that they are depleted of their creative energy. It has always seemed to me an anomaly that we unhesitatingly recognize the need for time for thought for university teachers, but seemingly have decided that public school teachers do not have the same need.

11. Despite the fact that many teachers are university graduates, we don't trust them to act as professional people. We subject them to autocratic direction in overly centralized educational systems, instead

of encouraging them to practise their profession in the manner their talents best suit them for.

In short, we concern ourselves only with the form of education, not the substance. We are, if you like, dealing with the symptoms, rather than the illness. Let's concentrate on the substance for a change. In this the teacher is all important. Efforts better to serve the aims of education should be centered around the teacher.

1. Select him more carefully.

2. Educate and train him more rigorously. Require full degree standing of him before permitting him to influence children.

—It is incredible to me that people who would throw up their hands in horror at the thought of entrusting their car to a mechanic who is not fully trained will, with no qualms whatsoever, entrust their children to a youngster just out of high school with little or no training as a teacher.

3. Free him from clerical and other non-teaching trivia.

4. Free him from autocratic direction so that he may practise his profession in his own way.

5. Give him classes of manageable size.

6. Give him time to prepare, to mark, to assess, to think, and to pursue his own further learning. Teachers, too, need time to learn.

7. Entrust him with responsibility: for pupil promotion, for curriculum content, for teaching methods, and so on.

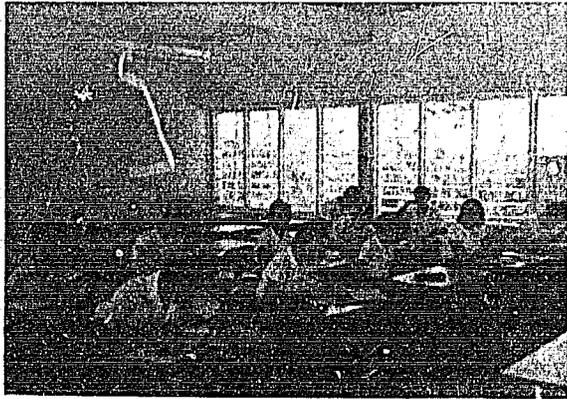
8. Re-educate existing teachers — as individuals and through their organizations — in terms of a new concept of professional responsibility. Full acceptance of professional responsibility will be a new concept to many teachers, who for decades have been schooled to accept dictation rather than responsibility.

9. And finally, in support of this program, be prepared to expend liberal amounts of time, patience, effort, and money.

The best educational aims in the world will never be realized unless they are fully appreciated by, accepted by, and implemented through, our teachers. ★

The panel on the Aims of Education included, from left to right, K. M. Aitchison; Miss Cora Bailey, Peterborough, Ontario; Miss Lorraine LeBlanc, Moncton, N.B.; J. A. McDonald, Medicine Hat, Alberta, and P.-E. Gingras, Montreal, Quebec.





English, Asian, Chinese, Malay and Iban children in Form IIB at Simanggang.

J. K. T. TAYLOR

# Sarawak Education

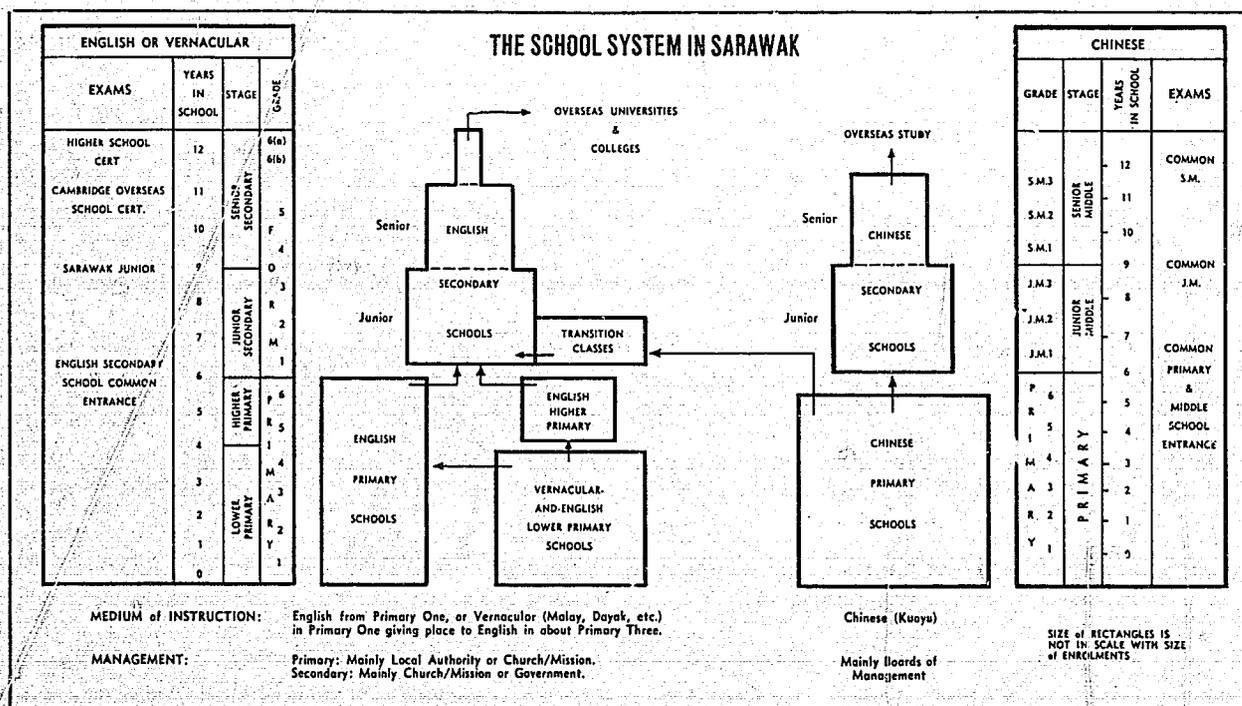
## Simanggang Sentinel III

ONE OF MY READERS has written to ask me when I am going to answer all the questions raised in my first article. The thought may have come to your mind also. The fact that it was cool upon our arrival here in Sarawak, was, by implication, an indication that many of our worries were exaggerated—nevertheless they were not unfounded. For instance, we have seen two or three snakes, but whether or not they were poisonous, we did not go near enough to find out. We have seen scorpions and centipedes (one bit my two-year old daughter, giving rise to concern), but with care they can be avoided. The heat and humidity are hell at times and the insects, mosquitoes particularly, certainly make life miserable much of the evening. But some people do get used to them. Some of the other questions will be answered directly or indirectly in ensuing articles.

In this article, I wish to give you some idea of the difficulties and complexities of the Sarawak education system. A comprehensive understanding of the system is impossible to obtain just by reading the references at the end of this article. Try reading the B.C. Administrative Bulletins for Schools objectively. The impressions are equivalent to someone who has not taught in either system. I shall here give you a few charts and comments which will allow you to compare the highly centralized B.C. system with the heretofore decentralized system of Sarawak.

A first glance at Chart I seems to indicate a highly centralized and controlled system of education divided simply into three mediums of instruction with a lock-step pattern for progress from Grades I to XII. (There is automatic promotion for everyone in order

CHART I



to get as many pupils into school as possible, but a great many drop out.) Like the English system, there appears to be a number of examinations which decide what stream a child will follow. This impression is over-simplified. The Government, through the Education Department, has recently tried to gain fuller control of the schools by attempting to implement the following steps:

1. The construction of Government Secondary Schools.
2. The giving of grants-in-aid to all schools.
3. The introduction of the English medium of instruction in all schools.
4. The introduction of standard syllabuses in all schools.

If the government is successful, a centralized system will follow. However, historically, the schools of Sarawak have been operated by separate agencies and do so today to a greater or lesser degree, depending upon how much aid they have accepted from the Government in the past. The only Government schools, until 1957, were the Malay Primary schools set up by the White Rajahs in order to educate future civil servants. Traditionally, the Malays or Muslims were the civil servants because Sarawak had been under the rule of the Sultan of Brunei. Even at the end of 1960, there were, under direct central government control, only four special primary schools (All primary education was handed over to local authorities because of administrative and travelling difficulties.) and three secondary schools. Nine more were planned at that time to be built by the end of 1964. Simanggang Secondary School, which was just

**CHART II - THE NUMBERS AND TYPES OF SCHOOLS IN SARAWAK - September, 1960**

Type of School		Primary	Secondary	Total	
VERNACULAR and ENGLISH MEDIUM	Government	4	4	8	
	Local Authority	424	—	424	
	Private (Village Committee)	5	—	5	
	Church or Mission	Native	126	3	129
		Other	20	11	31
CHINESE MEDIUM	Local Authority	9	—	9	
	Boards of Management	231	14	245	
	Church or Mission	7	2	9	
UNAIDED SCHOOLS		24	6	30	
<b>TOTAL</b>		<b>850</b>	<b>40</b>	<b>890</b>	

completed at the end of 1961, is the fourth, and a fifth one at Bau, near Kuching, has been opened in temporary buildings under Colin Smith, a fellow B.C. teacher with the Colombo Plan. All other schools operate either independently of the Government or, more often, are partially dependent on the Government, and hence, indirectly controlled through grants-in-aid. Chart II shows the complex of schools in Sarawak and the numbers of each type.

**Difficulties are Many**

I will try to describe the different types of schools in future articles. For the present, if one realizes that there are a great number of races in Sarawak, each having its own cultural background and its own dialect or language as a medium of instruction in the early primary grades, and, in the case of the Malays and Chinese, the vernacular as the medium of instruction through to the end of the twelfth year, the difficulty of implementing steps 3 and 4, mentioned above, can be clearly seen.

Certain groups have aimed much criticism at the Government concerning its attempt to introduce steps 2 and 3 because the grants have been made dependent upon the willingness of the school boards to accept the introduction of the English medium of instruction and the government examinations. The Government feels that if public funds are to be spent on certain schools, then these schools must teach in English so that they will be truly multi-racial, i.e., open to all races and using a medium of instruction that all races have had the opportunity to learn. Reluctance on the part of some Chinese schools to accept these conditions has brought a decision by Sarawak's Council Negri (recorded in its Sessional Paper No. 1 of 1961) that these schools shall cease to be grant-aided as from April 1, 1962, if they have not, by then, accepted the Government's offer. One Kuching Secondary-Primary School went on strike, proclaiming that such a step would lead to the death of the Chinese culture in Sarawak. It was later learned that the strike was a Communist-inspired activity and the Board of Management was asked to do some "house-cleaning." Nevertheless, bad feelings have been generated by the Government's action. For the Chinese, however, the English medium of instruction is as necessary for their graduates as it is for any of the other races, if they wish to continue their education elsewhere than in mainland China and, also, if they wish to procure good jobs in Sarawak. Fortunately, there are many wise Chinese who owe their allegiance to Sarawak and support the Government's steps.

Step 4 has received less opposition than steps 2 and 3 so far. The Batu Lintang Teachers' Training College staff has set up syllabuses for Primary I to VI, and these will be fairly easy to introduce through the new teachers being trained and through previous graduates. The secondary syllabuses are being constructed

by a team of three New Zealand experts seconded by the Colombo Plan who have started experimenting with them in some schools. These will meet with more opposition than the primary ones because of the varied and wider training of the secondary staffs. A Chinese training college at Sibiu is the only training college in Sarawak that trains secondary school teachers and these usually go to the Chinese Secondary schools. However, we do have one of its trainees at the Government Secondary School in Simanggang because his command of languages, including English, is excellent. All other secondary school teachers have had to obtain their training elsewhere — Singapore, Malaya, China, India, Ceylon, Australia, New Zealand, Great Britain, Canada and the United States of America.

CHART III — NUMBERS OF PUPILS BY RACE —  
September, 1960

Race of Pupil	School Age Population*	Pupils in School	Total Pupils	Percentage
Chinese	75,604	P 52,798 S 7,929	60,727	80.32%
Malay	34,393	P 14,173 S 561	14,734	43.13%
Dayak & other Indigenous	91,139	P 27,079 S 668	27,747	30.44%
Other Asians, Eurasians, and Europeans	2,057	P 723 S 108	831	40.39%
<b>TOTAL</b>	<b>203,193</b>	<b>P 94,773 S 9,266</b>	<b>104,039</b>	<b>51.15%</b>

P=Primary : S=Secondary

\* In accordance with a definition recommended by UNESCO, the school age population given above is the population between the ages of 5 and 14 years inclusive.

It is interesting to note Chart III fairly carefully, for the Government's policy and that of the Department of Education are guided by some of the facts apparent therein. Firstly, with a population of approximately 750,000 people, Sarawak has one of the highest proportions of school age children to the total population of any country in the world. The country has very few developed resources and has almost a subsistence economy. Therefore, very little revenue is available for education from the country itself. The Chinese have the highest proportion of school age children attending schools because, as the merchants and businessmen of Sarawak, they have been better able to afford to send their children to schools. But, because much of their money is made directly or indirectly from the indigenous groups, misunderstandings have developed between the Chinese and the rest of the Sarawakians. Secondly, the indigenous races have the greatest number of

Mr. Taylor is the Vancouver teacher sent to Sarawak by the British Columbia Teachers' Federation.

school age children, but the lowest proportion of them in schools. Lack of funds, remoteness of villages, difficulties of travel and cultural lag, all have added to the disparity between the numbers of Chinese graduates and of indigenous graduates. If that trend had continued, the Chinese would soon have taken over control of all the important business and political positions in Sarawak. This take-over would have been heightened if the British had not taken Sarawak under their care as a colony and supplied large sums of money to encourage the education of the indigenous races. In order to have a democratic system of government assured here in Sarawak, the Government has implemented the above four steps, among others, in education. Do not misunderstand me or the authorities. As I mentioned before, many of the Chinese consider Sarawak their home and have the needs of the natives and other groups in mind. However, there are just enough Communist-inspired people to make thinking people wonder what would have happened if steps had not been taken recently to stop their activities — such as the strike at a Kuching school. Recently, a farmers' association was a front for Communist activities and this fact brought on a bill limiting the association's powers. This action in turn gave rise to a number of incidents throughout Sarawak, one of which was here in Simanggang — the burning of a coffin and cross with the slogan *The Death of Western Democracy*.

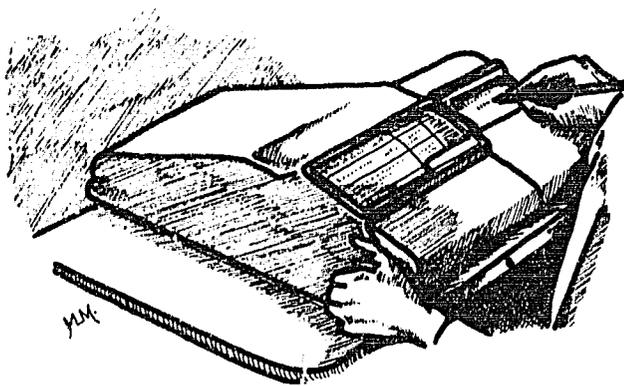
#### Movement for Early Independence

There is now a fast-growing movement in Sarawak for independence this year or by 1963, the U.N. deadline. It was not expected that the people would be ready for independence for at least five or ten more years. I, and others, wonder what will happen when Britain is asked to give Sarawak its independence. The loss of the millions of pounds sterling that Britain is pouring into Sarawak will have catastrophic results unless aid comes from elsewhere. But what countries will want to put money into this country when the future is so very uncertain? If Sarawak, North Borneo, Brunei, and Singapore join with Malaya in the Greater Malaysia Plan, there is some hope of preventing chaos, but there may be a loss of identity. The Malaysia plan has some merit as a bulwark against Communism, but at the rate the Communists are subverting the S.E. Asian countries to the north, maybe our worries about the threat to S.E. Asia were not exaggerated.

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This is the first section of a two-part article in which Dr. Robinson examines the research material on programmed learning. The second part will appear in our May issue.



## Mechanized Teaching

F. G. ROBINSON

**I**N ORDER TO ASSESS the present state of programmed learning research it may be useful to suppose that there are three recognizable stages in the research development of an educational idea.

In the first or "exploratory" stage, someone comes forth with an idea which he tries out on whatever subjects and in whatever situations happen to be available. If the idea is radical enough, it will probably spread; occasionally, as in the case of programmed learning, it may be taken up by the research literature, the educational literature, and even (heaven forbid) by the "mass media." It is usually in this stage—where evidence is almost entirely lacking—that the literature rings with phrases like "we are witnessing a fundamental revolution in . . ." or "we are about to enter a new era in . . ." Many studies of the exploratory kind can be found in the literature on programmed learning; in fact, a harsh critic would probably suggest that most of the literature has been of this kind.

In time, the crude exploratory stage gives way to a period of "controlled comparisons." The idea behind controlled comparison is that if the technique or program embodied in the new idea is a good one, it ought to produce better results than current or traditional methods. In order to find out if a new technique can stand up to this kind of test, it has to be compared with the "traditional" method under conditions which allow equal opportunity for each method to show its stuff. The well-known Roanoke

experiments provide a good example of this kind of research; here each member of a group of teachers taught three classes by the following methods: (1) programmed text only, (2) programmed text plus limited teacher assistance, and (3) traditional teacher method. In a "controlled" experiment, some effort would be made to match the classrooms so that they would be approximately equal in ability and initial achievement. Surprisingly little controlled experimentation has appeared in the programmed learning literature so far; most experimenters have been content to try out materials, with no controls, or to include a control group which received no instruction of any kind (I might add, parenthetically, that a few people have suggested that "traditional-program" comparisons are meaningless and therefore futile!—an opinion which I cannot share since it is tantamount to a denial of the research method.)

In the third stage, the experimenter undertakes a more sophisticated statistical analysis, prompted by the question: What "variables" are related to the effectiveness of the new technique? Such analyses lead to a literal infinity of possible experiments—since there is no known limit to man's ingenuity to compare lists of variables. In the programmed learning literature, the elementary "program versus traditional method" comparisons have been extended and amplified by examining the interrelationships of three clusters of variables.

1. *Variables relating to the learner.* Studies have

been conducted which investigated the relationship of the student's I.Q., achievement level, sex, age (or alternately grade) and level of motivation to gains in learning through programmed instruction (and to other criterion variables).

2. *Variables related to the program.* This cluster of variables is perhaps best known because it relates most directly to the "theories" advocated by proponents of alternative schemes. Some of these variables are: (1) the size of the step in the program, (2) constructed response versus multiple choice response, (3) "overt" versus "covert" response, (4) machine versus non-machine presentation, (5) immediate "every-trial" reinforcement versus intermittent reinforcement, (6) a 100 percent positive feedback versus mixed positive and negative feedback and (7) order of presentation of program items.

3. *Variables related to the criterion of success.* The first attempts at controlled experimentation often accept fairly immediate criteria for success, for example, marks on standardized tests of achievement or even marks on class tests. In the statistical phase, the criteria are expanded in an attempt to measure some of the more general aims of education. In the programmed learning literature, for example, the following variables have been employed as criteria: (1) marks on school tests, standardized tests and specially prepared tests, (2) time required to complete a given amount of instructional material, (3) measures of immediate recall, (4) measures of immediate recognition, (5) measures of delayed recall, (6) measures of delayed recognition, (7) measures of transfer to new materials, and (8) measures of the "positiveness" of student attitudes toward subjects learned through programmed instruction.

#### Enthusiasm Falls Off

The statistical stage in the development of an idea is also frequently the stage of disillusionment, or at least signals a falling off of the initial enthusiasm for the idea. One of the reasons for this diminishing enthusiasm is that while the simple controlled experiment stage allows generalizations which may find wide support, such as "programmed instruction leads to greater gains in achievement than the traditional method," the elaboration of specific situations and variables in the statistical stage inevitably brings inconclusiveness and apparent contradictions. Thus an experiment purporting to ascertain the relative merits of constructed response as opposed to multiple-choice response programs and employing Grade VI students of normal I.Q. in arithmetic and the criterion of immediate recall, may come up with a different answer than a similar experiment conducted with high I.Q. university psychology students and a criterion of delayed recognition. In short, agreement in the large is much easier to come by than agreement on specifics. Unfortunately, many Canadian educators, who hold "cautiousness" to be next to "godliness," would con-

strue disagreement on specifics as ample evidence to justify their long-range programs of planned inactivity.

Returning to the subject of this part of my paper—an assessment of where we stand in the research on programmed instruction—I would hazard a rough estimate that 75 percent of the research published to date has been primarily of the exploration type, 15 percent mainly of the controlled comparison type, and 10 percent largely of the statistical type, with the latter varieties gaining in relative frequency. It should also be pointed out that most of these "experiments" have been short-term projects with small numbers of students and, in some cases, hastily prepared programs. Moreover, even a generous estimate would not place the number of studies which could be called "experimental" at more than two or three dozen. I say this not in a way of criticism but to put you in a proper cautious frame of mind for the next section of my paper.

In view of what was said earlier about the obvious shortcomings of the research literature, you might infer that a responsible (and paid) research officer should argue that it is far too early to make generalizations or assessments of programmed instruction. While this degree of caution may be appropriate to the present situation, it would lead to a very dull paper. I would therefore like to put aside my usual caution and attempt a few weak generalizations. Where evidence is lacking I have liberally supplemented the research literature with my personal opinions. The findings have been arranged by areas.

#### A. How Effective is Programmed Instruction?

This is undoubtedly the most important question facing the educator who must know, prior to undertaking an elaborate program in this field, how programmed learning stacks up against traditional instruction. Generalizing over a wide range of subject areas (mathematics, logic, physics, chemistry, spelling, English grammar, Spanish vocabulary, German, educational psychology, psychology, trouble shooting, and others), a wide range of grade levels (from pre-school to university) and over various kinds of programs (constructed and multiple-response, machine and non-machine presentation, etc.), the first results appear to be that a student can be taught at least as efficiently by means of a program as through traditional teacher instruction. Most of the persons reporting their research either claim savings in instructional time to reach a given level of performance, or a higher level of performance in a given period of time, or both a saving in instructional time and a higher level of performance. Where the results have been nonquantitative the authors have tended to report their "satisfaction" with the preliminary results,

**Dr. Robinson is Research Director for the Canadian Teachers' Federation.**

a remark which I would interpret as an intuitive judgment in favor of programmed instruction. By way of comparison, we might note that the corresponding generalization from the research on educational television merely claims equal effectiveness for television instruction and the "traditional" methods. The only exceptions to this generalization about programmed learning that I have noticed are a few instances where hastily prepared programs gave no improvement over traditional methods, and some unsuccessful attempts to teach pre-school children with programmed materials.

#### **Will Efficiency be Improved?**

The first question which comes to mind is: Can we expect enough improvement in the efficiency of instruction through programmed learning to make it worth the effort? Unfortunately most of the studies—particularly those in the statistical phase—are couched in the language of "statistically significant differences." To me, this slavish devotion to statistical ritual says little about the magnitude (or as we say, "educational significance") of the gain. The only place where I could locate more meaningful generalizations concerning the amount of gain in instructional time or performance level by programmed learning was in the Roanoke reports. Here the claim has been made, and apparently supported by preliminary tests, that the average student using programmed materials will cover two years of school mathematics in one year and in so doing achieve at least as high a level of mathematical competence as he would have realized in the traditional classroom.

Let us accept the validity of this claim for the moment and ask how much of a gain over present practice this represents. Having taught mathematics, I know that there is a tremendous range in abilities among teachers of this subject. I am certain that some of our better teachers—possibly those who have already incorporated certain programming principles into their teaching—could go out into the typical classrooms of this country and effect a great improvement in the efficiency of instruction. I would even be prepared to believe that they could teach the equivalent of two years of mathematics in one school year if they were not harassed by our rigid grade system and narrow curricula. What I am trying to say is that I wonder about the baseline against which we are making comparisons, and I am not certain how programmed instruction would fare in competition with our most efficient teachers. However, it must be admitted that if the program turns out to be more effective than even the average teacher, then it would follow that there is a place for programmed instruction in the educational process.

Another reservation is the possibility that the well-known Hawthorne effect has been in play in the early studies on programmed instruction. In other words, it is conceivable that the observed superior efficiency

of programmed instruction may be due to the appearance of a short-term motivational factor caused by the fact that the students are part of an experimental situation. This is expressed very elegantly by Pressey, who says:

"It is a commonplace of educational research that first trials even of bad ideas usually come out well, because only teachers interested in them first try them, and pupils like the novelty and the special attention. Almost any reasonable method involving pupil activity and adjustment to individual differences will show gains. Over thirty years ago it was reported that first grade children teaching themselves to read, using clever materials centering on a word-picture dictionary, gained more in five months than the average class in two years."

This issue cannot be completely decided until we have had experience with programmed instruction over periods much larger than those reported in the research literature, and possibly until programmed instruction becomes the rule rather than the exception in the students' everyday experiences.

A final caution that I would make concerns the adequacy of the criteria that we are employing to judge the effectiveness of programmed instruction. In most of the controlled comparisons of programmed versus traditional instruction, the criteria have been mainly acquisition of knowledge as measured by the usual tests of recall or recognition. While admitting the importance of knowledge acquisition, I would also point out that the professed aims of education are much more lofty, and are often phrased in terms of "transfer," "problem-solving," "creative thinking," and the like. Whether programmed instruction in light or heavy doses will contribute to, or detract from, the realization of these broader aims, appears to be a completely unanswered question at the present time.

#### *B. Possible Change in the Role of the Teacher*

This question is of great interest to teachers' organizations, and of course to teachers themselves. If you sift through the numerous writing on programmed learning, two statements about the teacher emerge again and again.

1. Machines or programmed instruction will not replace the teachers.

2. There will be a redefinition of the teacher's role in the educational process.

I find the first statement of interest because, to date, most experiments have indeed replaced the teacher with a program, and claim to have obtained a higher level of student achievement in so doing. Moreover, the autotexts and autotutors in particular appear to be designed to instruct the student without any kind of teacher assistance whatsoever. Thus, despite the protestations of program sellers (who may consider it politic to reassure the teacher), it seems to me to be quite consistent with existing evidence to believe that

the program could displace the average teacher from many of our present school subjects.

If the teacher is no longer to be the chief "presenter and reinforcer," the question arises as to what her new role will be. Personally I find this part of the literature a bit hard to understand. We are told that the teacher will now have time to motivate students (yet we know that this poses seemingly insurmountable obstacles), to develop desirable attitudes (yet the research which has pondered this question has found that the school is relatively ineffective against the deep-seated attitudes developed by the home and social experiences), and to deal with individual differences (although this task is supposed to be one of the virtues of the program). I am not aiming here at mere cynicism; rather I am suggesting that we need something more than trite speculation about the possibilities of the teacher's new role.

When you come right down to hard facts, do we have any real evidence to suggest that the normal classroom situation cannot provide what are presently thought to be the essentials of good programming—that is, presentation of material in small steps, student activity, and abundant feedback? The idea that it cannot seems to stem from Skinner's 1954 paper, in which he maintains that a sufficient quantity of immediate reinforcement cannot be provided unless mechanical means are employed. Many educators seem to have accepted this statement as an indisputable truth. Yet many of our mathematics teachers, for example, use texts or specially prepared materials in which the exercises are arranged in a long sequence with easy gradations of difficulty. The good mathematics teacher merely gives the student enough explanation to start him on this sequence and allows him to proceed at his own rate. Coupled with this reduction into easy steps, mathematics has a built-in system of reinforcement which is not likely to be understood by anyone who considers competence in mathematics to consist of the emission of appropriate verbal responses to given stimuli.

#### Reinforcement is Internal

Many of these reinforcements require for their explanation concepts of "internalized operations" and other subjective variables which the behaviorist deems inappropriate to the science of human learning. In lieu of a full theory, I will offer a crude analogy to illustrate my point. In some respects a mathematical exercise, such as solving a quadratic equation, is analogous to lifting a refrigerator up a flight of stairs. When you make the first step, you know that you have made progress—there is ample feedback from the environment to tell you so. So it is with the quadratic equation; after you have taken a "step" there is ample feedback from mathematical checks (if the student wants to employ them), and from the internalized schemata of mental operations which is essential to mathematical comprehension. Since these

points have not been disputed I will consider it reasonable to believe that there can be ample feedback in the mathematics classroom without clanging bells, flashing lights, gumdrop dispensers, or the voice of the mechanized tutor, whispering sweet "corrects" in the student's ear.

As another example, consider a student reading a history text. If he is really trying to learn (i.e., if he is motivated), he does not wander aimlessly and unreinforced through the text as Skinner seems to believe he will. Rather, the good student will often read a passage, turn away from the text, "mentally" summarize the points covered, and return to the text for verification. How can any reasonable person deny that there is "feedback" here? Moreover, this procedure—in contrast to prefabricated programs—allows the student to use whatever "size of step" and "schedule of feedback" (or reinforcement) is most congenial to him.

#### Information-fixing not Tedious

I would like to make two generalizations here. In the first place, it is quite misleading to say that there is no feedback (or even limited feedback) in the normal classroom situation. This would only be true in the rigid university lecture where the professor disseminates information at a rate which may bear no relationship to the student's ability to absorb and "test" it. The average classroom teacher improves on this practice somewhat, but unfortunately tends to treat the class as a composite intellectual entity to which she provides feedback, rather than as a collection of thirty or more separate intellectual entities. She assumes that when she asks the class a question—and indicates the correctness or incorrectness of the response—that she is providing reinforcement for each member of the class. (However, this would only be true if the class were perfectly homogeneous—even to the complete similarity of thought processes.)

Finally, the superior teacher acknowledges the futility of the "composite intellect" approach and provides an opportunity for the individual student to proceed at his own pace. And when this practice is followed, I would suspect that the motivated student in most school subjects may be able to "generate" adequate reinforcement in the manner that I have described.

One final point in terminating this discussion. Whether or not the teacher is replaced as the chief "information-fixer," I think the programming enthusiast in maintaining that he will free the teacher from the "tedium of instruction," has not adequately surveyed teacher feeling in this matter. Far from regarding information-fixing as tedium, I think that many teachers regard the process of getting the point across as the central and most thrilling aspect of teaching. It may turn out that the teacher would prefer this role to the more "creative" one that the programmer envisages for him. ★

# The New Math 8

G. W. BROADLEY and J. M. LYDIARD

ALMOST SINCE its inception in 1956 the present Mathematics 8 course was considered inadequate by many teachers. The course provides little challenge, fails to stimulate an interest in mathematics, devotes more than two-thirds of the work to review of Grade VI arithmetic and prepares the student inadequately for Mathematics 10. In addition, none of the recent developments in the teaching of mathematics are included in the course.

In the same year that the present Mathematics 10 course was introduced, Mr. J. R. Meredith, Director of Curriculum for the Department of Education, appointed a committee of ten to appraise the entire secondary mathematics program. The purpose of the Appraisal Committee was to provide a sound basis for determining the future revisions or other developments considered necessary.

In June, 1958, the Appraisal Committee made an interim report calling for a general "down-grading" of topics. For example, simple equations and fundamental operations with algebraic expressions would be introduced in Mathematics 8 instead of Mathematics 10. Similarly, units from Mathematics 91 were recommended for Mathematics 30 and from Mathematics 30 for 20.

Since completion of the work of the Appraisal Committee, a considerable amount of experimental work in the teaching of mathematics has been carried out in British Columbia and elsewhere. Also the Report of the Royal Commission on Education has been completed with recommendations affecting the mathematics program. Thus the stage is now set for a major revision of the secondary mathematics program in the schools of B. C.

The present Secondary Mathematics Revision Committee was appointed in May, 1961, after some major policy decisions had been made. Members of the committee are from Victoria and Vancouver junior and senior high schools as well as the University of British Columbia. Two members are nominees of the Mathematics Association.

The committee is undertaking a revision in mathematics courses from Grade VIII through Grade XII and will be selecting new textbooks where necessary. The work of the Appraisal Committee, recent research in the teaching of mathematics and the reorganization of the secondary school program are major factors the Revision Committee is considering in preparing a new program. The revision is planned to continue through to Grade XII at the rate of one grade each year.

At the first meetings of the Revision Committee, consideration was given to the purpose and scope of the Grade VIII course. Topics from the Appraisal Committee Report were compared with topics in all available Grade VIII experimental courses and texts. Tentative agreement was reached that a suitable Grade VIII course would include an introduction to geometry, numeration, whole numbers, operations with fractions (using ratio and proportion), introduction to algebra, positive and negative numbers and measurement. Some use of set terminology as a unifying concept within the program seemed advisable. It was also agreed that practical problems could be used within each unit so that separate units on applications would not be required.

Having determined the general scope of the course the committee next turned its attention to the problem of selecting a text. At the invitation of the Department of Education, publishers submitted their various texts in mathematics for the consideration of the committee. Upwards of sixty texts were distributed to each member for appraisal.

Many of the texts obtained were similar to the present Grade VIII text, presenting neither a challenge nor mathematically sound material. Several were considered good texts for Grade IX or higher but appeared too difficult for Grade VIII. Others did not provide for the scope of course planned by the committee.

The committee finally recommended that a Canadian edition of Brumfiel, Eicholz and Shanks, *Intro-*

*duction to Mathematics* (Addison, Wesley) be prescribed as the textbook for Mathematics 8, effective September, 1962. The Canadian edition will include additional exercises and some minor corrections proposed by the Revision Committee. This is a text which has been in preparation for five years and has undergone careful revision in the light of classroom experience.

Members of the committee believe this to be the best text available in that it most consistently uses a sound mathematical approach in developing the desired topics. It is a challenging and stimulating book. Fundamentals of arithmetic are used throughout but in new and interesting ways. Simple set terminology is used widely at the student's level of understanding. Designed to create interest in mathematics, the book appears particularly suited to the task of introducing mathematics and preparing pupils for further study in this field. The committee did note that the text might prove too difficult for some Grade VIII pupils, but it would be dull and inadequate otherwise. The quantity of routine drill is reduced as compared with traditional texts, while there is an increase in thought-provoking questions. Follow-up drills should be more effective since they are made more meaningful.

There is no doubt that the newly prescribed textbook represents a major change in course and in presentation from the present Grade VIII text. For many teachers, preparation by means of in-service education, use of the excellent teachers' manual, and the course outline in the Programme of Studies, may be necessary. Perhaps just reading and talking about the few unfamiliar approaches will be even more beneficial.

To assist teacher preparation, the B. C. Association of Mathematics Teachers, in collaboration with the Department of Education, the University of British Columbia and the In-Service Education Committee of the B. C. T. F. is planning a workshop immediately

Mr. Broadley, chairman of the Mathematics Department at Colquitz Jr. High School, Victoria, is secretary of the Mathematics Association. Mr. Lydiard, head of the Mathematics Department at John Oliver High School, Vancouver, is past-president of the Mathematics Association.

following the Easter holidays. Representatives from districts desiring to set up courses have been invited to attend. The course and text will be studied intensively and attending teachers will be aided in setting up local courses for mathematics teachers in their home districts. In addition, both Victoria College and the University of British Columbia have scheduled short summer session courses designed to provide an adequate foundation for interested teachers. The course at U.B.C. is sponsored by the B.C.T.F.

Several local groups have already held workshops or lecture series attended by a large number of teachers. It is hoped that all districts which can use help will be represented at the April workshop.

A basic purpose of the revised course is to develop an understanding of the structure of arithmetic together with a logically sound introduction to algebra and geometry. Thus the aim of in-service education is to provide teachers with as deep an understanding of the structure of mathematics as needed to teach the new course.

A few illustrative examples of questions from the textbook will indicate that many of the topics are quite familiar although the language and general approach may be new. Numbers given before a problem refer to page and number of problem.

9/2 Which of the following statements are true and which are false?

(a)  $3 \times 5 > 16$       (b)  $3 \times 5 = 16$ , etc.

10/3 Find a simpler numeral for each of the following numbers.

(a)  $\frac{3}{4} \div \frac{1}{8}$     (b)  $0.64 \times \frac{1}{2}$     (c)  $16 \frac{2}{3}\% \times 42$ , etc.

51/12 If a numeral is written in base ten, give a rule for deciding whether the number it represents is even or odd.

51/13 If a numeral is written in base two, give a rule for deciding whether the number it represents is even or odd.

54/2 Write decimals for the following rational numbers.

(a)  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{16}$ ,  $\frac{1}{32}$ ,  $\frac{1}{64}$ .

(b)  $\frac{1}{5}$ ,  $\frac{1}{25}$ ,  $\frac{1}{125}$ ,  $\frac{1}{625}$ ,  $\frac{1}{3125}$ .

149/2 Show that the decimal representations of the following rational numbers repeat.

(a)  $\frac{5}{9}$ , (b)  $\frac{7}{15}$ , etc.

Another feature of the text suggested by the last two examples is the manner in which pupils are led to discover shortcuts and to develop generalizations for themselves. Only a complete study of the text can indicate the extent to which this discovery technique is used. Throughout, the emphasis is on the principles involved.

Continued on page 324





The Executive Committee of the Provincial Teachers' Medical Services in session in the B.C. Teachers' Building. From left to right are E. Lane, West Vancouver; R. H. Reeve, Trustee Representative, Victoria; E. H. Lock, Retired, New Westminster; A. H. Gooding, Richmond; V. L. Dryer, Solicitor; J. Goldie, President, Burnaby; W. E. Whatmough, Secretary-Treasurer; Miss M. Watson, Office Secretary; T. Dodman, Auditor; A. G. Creelman, West Vancouver; Mrs. M. Steves, Trustee Representative, Richmond; T. Bullman, Vice-President, North Vancouver; W. H. Janzen, Surrey.

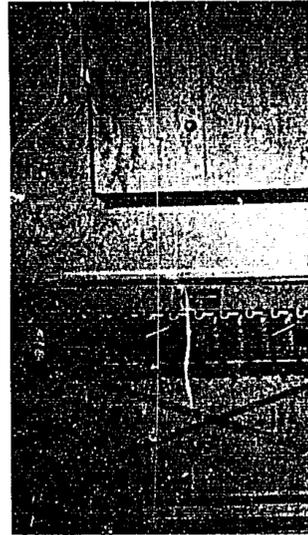
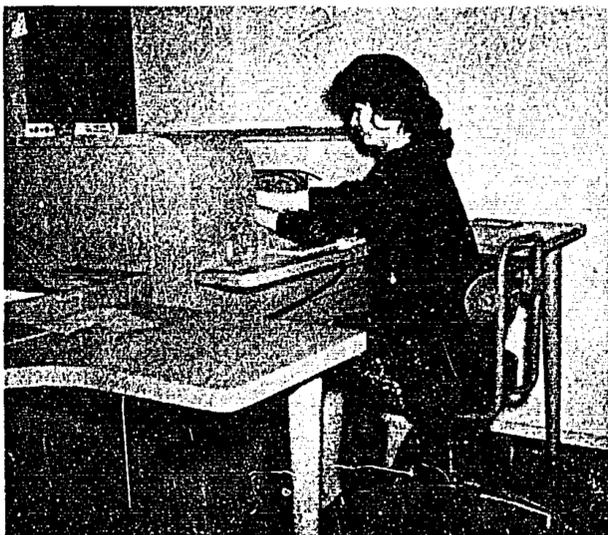


**M**OST OF THE MEMBERS of the Federation are also members of the Provincial Teachers' Medical Services. Some members may not have had to use the benefits available to them, but some have found their membership of great value and assistance when illness has struck suddenly.

Here is what happens in the Medical Services office when a bill is received from a doctor.

The mail is opened, sorted and dated in. Mrs. Doris McAuley, in the center of the picture top left, is responsible for this first step.

Next Miss Pauline Kenny (lower left) checks the patient's name with the master file of membership cards to make sure that the patient is a member of the association and enters the membership and District numbers on the claim card.



# Your Medical Claim

The third step is taken by Miss Susan Mackie, who punches the member's number on the account card and then sorts the cards numerically. These cards can be sorted in many different ways by the sorting machine, also operated by Miss Mackie. (Left center and center below.)

After the information has all been recorded on the punch cards, the claim is assessed by Mrs. McAuley and Mrs. Gerine McPherson, who is in the foreground of the picture top left.

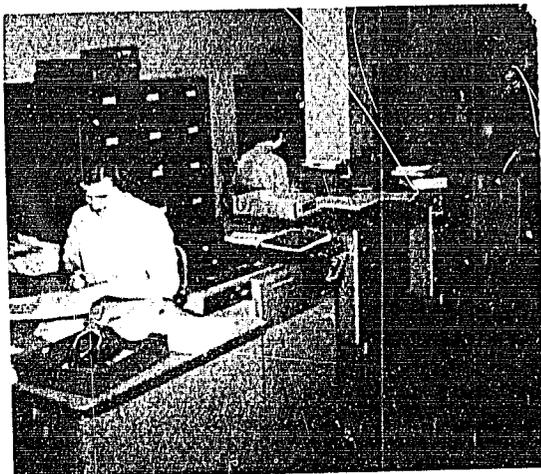
Then the claim goes back to the keyroom, where Miss Mackie prepares more cards giving the total payment to be made, the school district to which the member belongs, and other relevant information concerning type or types of service, etc. There may be as many as ten cards prepared covering one claim. The cards are then all filed until the date for paying accounts.

On the paying dates, the cards are brought out again and the tabulating machine is put into operation. (Right center below.) Mrs. McPherson and Miss Mackie both operate this machine, which does complicated statistics and compilation of records and finally produces the cheque which goes to the doctor in payment of his claim. Finally, the account cards are sorted once more and filed with the member's card.

Mrs. Peggy Guenther, Mrs. Nancy Bullock and Miss Kenny are shown in the top right picture. Mrs. Guenther keeps the Medical Services' books, while Mrs. Bullock and Miss Kenny take care of routine office correspondence and clerical work.

In the picture right center, Mrs. Guenther gives information to a member who has come in about a claim which is being processed.

Miss Mary Watson, shown in the bottom right picture, is Office Supervisor and deals with many varied enquiries from members, doctors and hospitals. She is responsible for the smooth operation of the Medical Services office. ★



*An outline of the need for teachers in those parts of the world we call under-privileged.*

# Help Wanted!

J. A. YOUNG

WHEN THE DELEGATES to the 1961 Annual General Meeting of the B.C.T.F. voted overwhelmingly to assess members one dollar a year to raise funds to send a B.C. teacher to an underdeveloped country in Africa or Asia, they took an historic step in the direction of international co-operation and goodwill towards the two-thirds of humanity we often call "under-privileged."

The problems of illiteracy and education faced by these countries are enormous, and the assistance given by only one B.C. teacher may have great impact.

Adult illiteracy and the education of children are closely linked problems in Africa and Asia. As Unesco has pointed out:

"The phenomenon of illiteracy is not confined to any particular part of the world or group of countries. It exists everywhere in varying degrees. As long as more than two-fifths of the world's adult population cannot read and write in any language, and are thus deprived of their full participation in the cultural life of mankind, the question of world illiteracy must continue to be of concern to all. Furthermore, progress in the reduction of illiteracy is closely related to other aspects of educational, social and economic progress of a community, a country, or of the world as a whole. Hence it is essential to consider the question of illiteracy, not as an isolated phenomenon, but in all its inter-relationship with other factors of modernization, such as the extension of free and compulsory education, the development of urban industrialization, the utilization of a nation's resources for increased productivity, and the policies towards equitable distribution of a country's material and financial resources for the education of its children and youth."<sup>1</sup>

It has been estimated that at mid-century over 700,000,000 of the world's adult population (15 years old and over) could not read and write in any language. On the continent of Africa alone, about 85% of the adults were illiterate in 1950. This amounted to slightly over 100,000,000 people. Similarly, in Asia, it was estimated that 65% of the adults, some 525,000,000 people, were illiterate.<sup>2</sup>

The accompanying table, based on 1950 population figures, conveys some idea of the extent of world illiteracy.

Widespread illiteracy is often given as the root cause of many of the staggering educational, social, economic and political problems existing in two-thirds of the world's 200 countries.

Since the end of World War II, more than half the states in South Asia have secured their independence, and are anxious to maintain it and to reconstruct their national life. The role of education is a key one in this process. Some of the countries in this area (Indonesia is an example), have embarked on "crash programs" to eliminate illiteracy. Thousands of schools have been opened, yet illiteracy rates continue at very high levels.

It has not yet been possible, in many Asian countries, to provide free and compulsory education for a period sufficient to ensure permanent literacy. There are not enough teachers, or schools, or funds to tackle such an enormous task. Those schools that do exist are often inadequate or staffed by teachers who are barely literate themselves. And, of course, there are no schools at all for many millions of youngsters throughout Asia and South-east Asia.

For example, in the Colony of Sarawak, an area with which I am personally familiar, it is estimated that only one-third of native children of school age (6-15 years) are now enrolled in schools. Many thousands of youngsters want to go to school, but none

## ESTIMATED EXTENT OF ADULT ILLITERACY IN SELECTED COUNTRIES AT MID-CENTURY<sup>3</sup>

Country	Est. Population	Est. % Adult Illiterates
Angola .....	4,093,000	95-99
Brazil .....	52,000,000	50-55
CANADA .....	13,712,000	2-3
Cuba .....	5,362,000	20-25
Egypt .....	20,393,000	75-80
Ethiopia .....	15,000,000	95-99
India .....	358,000,000	80-85
Indonesia .....	75,500,000	80-85
Italy .....	46,600,000	10-15
Laos .....	1,260,000	80-85
Nepal .....	7,000,000	95-99
Nyasaland .....	2,289,000	90-95
Sarawak .....	562,000	80-85
Saudi-Arabia .....	6,500,000	95-99
Sierra Leone .....	1,880,000	90-95
Turkey .....	21,000,000	65-70
United Kingdom .....	50,000,000	1-2
U.S.S.R. ....	186,000,000	5-10

NOTE: Approximately 75% of all the world's adult illiterates are found in Asia.

are available for them. There simply are not enough teachers to go around. Hundreds of untrained teachers have already been pressed into service in rural schools offering four years of primary education. In 1959, Sarawak had over 1,100 teachers with an academic background below the Grade IX level. Of this number, over 700 were untrained. In a total teaching force of just over 3,000 teachers in 1959, more than 2,200 (67%) were untrained. This kind of educational problem is very common in many of the areas in Asia.

A fairly typical rural school in Sarawak has one male teacher, aged about 20, who has completed six years of primary education. He teaches 40 or more pupils in four classes consisting of Grades I to IV. There is a better than 50% chance that he is untrained. He lacks good texts, and does not have the bare minimum of teaching aids or essential equipment.

Educational authorities fight valiantly to solve such educational problems, but it is very difficult to make progress. The introduction of better medical care — though still very primitive by our standards — has greatly increased the survival rate among the newborn. The elimination of malaria has also contributed greatly to the increased survival rate. Consequently, populations are expanding at an alarming rate. It has been suggested that Asia's problem is "a problem of babies." There is much truth in this.

#### High Proportions of Children

At the present time, the ratio between the child and adult populations of Asia is much higher than in the countries of the Western world. For example, in England the child population between the ages of 6 and 12 is approximately 8% of the total population, but the corresponding figure for South Asia is at least 15%. It is estimated to be as high as 20% in Malaya and the Philippines, while in Sarawak, the 1960 census showed that a phenomenal 44% of the population consisted of children under the age of 15. It is difficult enough for Asian countries to provide educational facilities for those children now of school age, let alone provide the extra facilities that will be needed in the future by an exploding population.

The educational task which lies ahead in Asia is extremely serious. And, until some headway is made, we must live with the explosive social and political situations characteristic of this area of the world. Democratic institutions and social justice cannot flourish in countries where the overwhelming majority of adult citizens are illiterate and survive under conditions of near-starvation and high rate of disease.

The problem of illiteracy and lack of general educational facilities is no less critical in Africa where some 100,000,000 adult illiterates (80-85% of the adult population) struggle for sheer survival. "A Unesco inquiry carried out in 22 countries of tropical Africa has shown that in 17 of them the proportion of sec-

ondary to primary school pupils is less than 5 percent and in only four countries is the proportion higher than 7 percent."<sup>4</sup>

More specifically, in Kenya, with a national population of approximately 6,000,000, there are only 5,000 students in secondary schools against a total of 580,000 in primary schools. In 1960, only about 650 native Kenya pupils finished the equivalent of B.C.'s Grade XI. In terms of the B.C. school system, this would mean, comparatively speaking, that in the 1960-61 school year we would have had only 1,600 students in all secondary schools throughout the province. And, it would also mean that out of this number, only 210 would have finished Grade XI last June.

Among the children of school age in Africa, there are about 17,000,000 who have no chance to go to school.<sup>5</sup> Although there are many reasons why so many African children (approximately equivalent to the entire population of Canada) do not attend school, the chief reason is that more than 345,000 teachers are lacking and must urgently be trained.<sup>6</sup>

#### Enormous Educational Problems

To mention yet other examples, in Ghana, with more than 500,000 pupils at school in a population of 5,000,000, the government has not yet been able to set up and maintain one single technical school.<sup>7</sup> In Nigeria, there are 2.7 million pupils in all schools, but primary schools (Grades I to VI) alone account for 2.6 million of them. In Northern Nigeria, with a population of 18,000,000, there are 4,000,000 youngsters growing up uneducated.

You may wonder what is being done, or what can be done, to solve the enormous educational problems of Africa and Asia.

Since World War II, in a number of regions, encouraging progress has been made in combatting illiteracy and extending compulsory education. Two forces have been harnessed in the drive to raise the standards of education provided in many of the underdeveloped countries.

Firstly, national governments in Africa and Asia have shown increasing awareness that social and economic problems cannot be solved unless there is a considerable expansion in the amount and quality of education which they provide for their citizens. Consequently, in many areas, a greater proportion of national budgets are being devoted to education. Many countries have plans for compulsory education, and these are to be put into operation as soon as teachers and educational facilities can be provided.

On the whole, however, many of the ambitious plans for educational expansion in Africa and Asia will depend for their success on the amount of aid forthcoming from the more industrially advanced countries of the West.

Mr. Young, after three years in Sarawak, is principal of Similkameen Jr.-Sr. High School, Keremeos.

Secondly, many educationally backward countries are now availing themselves of the assistance provided by the industrialized nations of the West and such international organizations as Unesco and Colombo Plan. On the whole, however, the Western nations have not fulfilled their responsibilities and obligations in this regard. They spend only a tiny fraction of their income on assistance to less fortunate countries.

The Unesco organization battles valiantly to cope with the demands made upon its educational services by underdeveloped countries, but it has not a shadow of the resources it needs to provide aid and assistance in the quantities required. Unesco is now functioning on a budget of approximately \$50,000,000 a year for educational assistance and development on a world-wide basis — less than half the amount which B.C. alone spent on education last year.

Through the Colombo Plan, Canada provides valuable educational assistance to countries in South-east Asia and Africa, but it does not do nearly enough. In 1960, for example, Canada spent some \$60,000,000 in Colombo Plan aid, but only a small part of this was earmarked for educational purposes.

If more citizens in Western countries could be made aware of the educational and social problems existing in the underdeveloped areas of the world, they might well force their governments to take appropriate steps towards increased assistance of all kinds, and educational assistance in particular.

As was pointed out last year in the *Unesco Courier*, "Most people simply do not realize the scope of the gigantic tasks confronting the countries of tropical Africa."<sup>8</sup>

#### Co-operation a Two-way Process

There is one aspect of international technical and educational assistance which we are apt to overlook. It should not be assumed that the West gives, and the nations of Africa and Asia simply receive. International co-operation and assistance are very much two-way processes. Canadians who serve abroad in technical assistance schemes, for example, return to Canada with much deeper understanding and sympathy for the needs and aspirations of different people in different lands. It is not hard to imagine the impact which Canadian teachers who had served abroad for varying periods could make on the junior citizens now in our schools. The realities of twentieth century life make it imperative that our teachers do more to promote, among young people, greater sympathy for those in Africa, Asia and elsewhere who are struggling to take their rightful place in the modern world.

Moreover, would not teachers who serve abroad expand their educational and cultural backgrounds by living among people in Africa or Asia? We Canadians can learn a great deal indeed from people in underdeveloped lands. Every culture has features that enrich the spirit of foreigners exposed to it for a

period of time. Could anyone know the politeness of the Japanese, or the hospitality of the Chinese, or the friendliness of the Malayans, or the gentleness of the Dayaks, without being the richer for the experience? And, could anyone who has seen Congolese children dying from starvation ever be indifferent to newspaper articles recounting similar happenings elsewhere? First-hand knowledge of the world's peoples and their problems is the surest way to greater understanding among nations.

The members of the B.C.T.F. may take justifiable pride in their decision to assume the entire cost of supporting a B.C. teacher in educational work in Africa or Asia. John Taylor, who was selected for this assignment, will not only make a great contribution to educational progress in some underdeveloped country, but he will also enable every B.C.T.F. member to reap the spiritual rewards that accompany selfless giving.

It is to be hoped that other teachers' federations across Canada will follow the example of the B.C.T.F. In addition, other professional organizations could very well follow in the path blazed by the B.C.T.F. Here I am thinking particularly of the medical and dental professions.

For example, in Basutoland, with an estimated population in 1956 of over 641,000, there were twenty-nine registered physicians and three dentists. In French Equatorial Africa (Middle Congo, Gaboon, Ubangi-Shari, Chad), with an estimated population of 5,000,000 in 1957, there were only 200 registered physicians and eleven dentists. It takes little imagination to visualize the state of medical and dental services in these countries.

In the city of Vancouver alone there are approximately 1,000 physicians and surgeons! Would it not be possible for B.C.'s doctors to supply and pay for just one of their members to work in some underdeveloped country in Africa or Asia?

Is it too much to hope for that other professional organizations in Canada will follow in B.C.T.F. footsteps? ★

#### References

<sup>1</sup> Unesco, "Preface," *World Illiteracy at Mid-Century* (Monographs on Fundamental Education — XI. Paris: Unesco, 1957), pp. iii-iv.

<sup>2</sup> There are two classifications of literacy: (a) A person has *simple literacy* when he can read a simple passage with understanding and write a short simple statement about his everyday life; (b) A person has *functional literacy* when he has acquired the knowledge and skills in reading and writing which enable him to engage effectively in all those activities in which literacy is normally assumed in his culture or group. Most illiteracy rates are based on the criterion of simple literacy. It must be kept in mind, moreover, that illiteracy rates and figures are often underestimated because people tend to hide the fact that they are illiterate.

<sup>3</sup> Unesco, *op. cit.*, p. 37ff.

<sup>4</sup> Georges Fradier, "New Schools for Africa," *The Unesco Courier*, Vol. 14, No. 2 (February, 1961), p. 23.

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*, p. 27.

<sup>8</sup> *Ibid.*



The 1961 C.T.F. Annual Meeting was held in Saskatoon. From left to right (back row) are shown C. S. Gow, C.T.F. President; K. M. Aitchison, the late Dr. G. G. Croskery, C.T.F. Secretary-Treasurer, and H. M. Palsson; (front row) W. H. Janzen, R. B. Cox and C. D. Ovans.

## The Teachers' National Voice

K. M. AITCHISON  
B.C.T.F. President

**M**OST B.C. TEACHERS know that C.T.F. is the abbreviation for the Canadian Teachers' Federation. Few, however, know much more than that about their national organization.

What is C.T.F.? Who belongs to it? How is it governed? What does it do? How is it financed? How do its activities relate to teachers in B.C.? This article is an attempt to provide some answers to the foregoing questions.

As its name implies, C.T.F. is a federation of the provincial teachers' organizations, exclusive of the French-speaking teachers of Quebec. It is hoped that the latter group will affiliate within the next few years. Every B.C. teacher, by virtue of his membership in the B.C.T.F., is a member of C.T.F.

Like all teachers' organizations, C.T.F. has been growing rapidly. In recent years its membership has been increasing by about 6,800 a year. Last year's total was 109,924 plus an additional 10,629 associate or honorary members of the various provincial affiliates who do not pay fees, making a membership of 120,553.

The organization is financed by a per capita annual fee, presently set at \$1.25. Policies are determined by annual summer meetings which are moved from province to province. This year's conference will be held in Charlottetown; 1963's in Vancouver. The work of implementing policy is directed by an Executive and Board of Directors, and is carried out by committees and a small permanent staff.

The Executive, elected at the Annual General Meeting, consists of the president, three vice-presidents, and the past president. The Board of Directors is made up of the Executive plus a director from each province. Each year the president of the B.C.T.F. acts as B.C.'s director.

Just what does C.T.F. do for Canadian teachers? This question has many answers. Here are a few.

It performs a clearinghouse function, collecting and disseminating information about the activities of its eleven affiliated provincial organizations and about national and international organizations involved in education.

It operates an Information Service, answering an average of 100 inquiries a month.

It operates a very effective Research Division, which conducts research, stimulates and assists research projects in the affiliated organizations, and maintains close liaison with other bodies involved in educational research both inside and outside Canada.

It provides a consultative service to its affiliates in the preparation of briefs and in the study of such matters as salaries, pensions, working conditions, curriculum, and education finance.

It conducts seminars, workshops and conferences at the national level, facilitating interprovincial exchange of ideas and also ideas between various levels of education. Good examples of this type of activity are the 1960 Seminar on New Thinking in School Mathematics, and the 1961 Seminar on Programmed Learning. Both seminars brought together teachers, university professors, professors of education, and laymen from all parts of Canada, and gave these people an opportunity to learn of the latest thinking in the two areas of learning, and to make an assessment of the future implications for schools of the developments to date in modern mathematics and programmed learning.

It publishes reports, bulletins and studies from its Research Division and general office, provides a distribution of educational articles to provincial teachers' magazines, and circulates a newsletter four times a year.

It is the voice of Canadian teachers at the national level. Through the Canadian Conference on Education and a number of bilateral arrangements it maintains contact with many other national organizations in Canada having a primary or secondary interest in education.

#### Member of National Boards

C.T.F. represents the teachers of Canada on the CBC National Advisory Council on School Broadcasting and Television, the CEA-National Film Board Advisory Committee on Educational Films and Filmstrips, the Canadian Council for Research in Education, the United Nations Association of Canada, the Canadian National Commission for UNESCO, the External Aid Office Advisory Committee on Teacher Training and Supply, the Council of the Health League of Canada, the Canadian Citizenship Council, the Canadian Association for Adult Education and several committees of the Canadian Conference on Education.

On its own behalf and as an agent for its provincial affiliates it has frequent dealings with the Federal Government and departments of the government. For example, it makes presentations to the Prime Minister and members of the cabinet concerning various forms of assistance to education;<sup>1</sup> it works with the External Affairs and External Aid Office on matters related to UNESCO, Canadian assistance to Commonwealth and other countries, and in connection with international conferences and seminars; it

co-operates with the Department of Labor in surveys and studies of professional manpower, surveys of salaries and working conditions, monographs and films on teaching in Canada, and matters related to vocational training; it consults with the Department of Citizenship and Immigration with respect to the education of new Canadians and teachers in Indian schools, and with the Department of Northern Affairs and National Resources concerning teachers in the Yukon and Northwest Territories. From time to time representations are made to the Department of National Revenue and the Department of Finance on taxation problems. Liaison is maintained with the Department of National Defence for consultation on matters affecting Canadian teachers in D.N.D. schools overseas and in Canada.

#### Teachers' International Voice

C.T.F. is the voice of teachers internationally. It plays an active role in the affairs of the World Confederation of Organizations of the Teaching Profession, which has national member organizations from seventy countries representing five million teachers. C.T.F. has been represented on the nine-member Executive Committee of WCOTP since the inception of this organization in 1952, and sends delegations to the World Assembly each summer. It also maintains contacts with the International Labor Office, the International Bureau of Education, and UNESCO.

Although it does not conduct a formal program of public relations, C.T.F. is constantly aware of the importance of good public relations for education, and maintains relations with national press bureaus, the Canadian Weekly Newspaper Association, the CBC, and other radio and television outlets.

Protective aspects of teachers' organizations are the concern of the provincial teachers' organizations, so C.T.F. acts in these matters only on request and in an advisory capacity. However, when problems in this area extend beyond provincial boundaries, C.T.F. has the machinery to co-ordinate and consolidate the stand to be taken on an issue by the teachers of Canada.

Over the years the B.C.T.F. has consistently worked to make C.T.F. a strong national voice for teachers. Six of our presidents have gone on to become C.T.F. presidents. Moreover, B.C. delegates have been elected to five out of six committee chairmanships during the last two C.T.F. conventions.

Any organization can seem remote and of questionable worth to members who do not participate directly in its activities. By its very nature, C.T.F. makes it difficult for teachers to identify themselves with the organization. July, 1963, however, will afford B.C. teachers an opportunity to learn first hand the value of their national organization. Plan now to attend the 1963 C.T.F. Convention in Vancouver.★

<sup>1</sup> Last October C.T.F. presented to the Cabinet an excellent brief which clearly demonstrated the need for federal aid to education.

# Fishing — Recreation and Re-creation

RALPH SHAW

**I**N OUR EVER increasing desire to produce better hockey players, basketball players, and great athletes are we not forgetting that only a small percentage of our adults ever take part in competitive games? Are we not forgetting that thousands of workers face shorter work weeks, longer vacations and greater take home pay?

If the goals of our sports and athletic programs are to create sound bodies with fair muscular development, they are succeeding reasonably well. However, if another of our goals is to teach our students how to use their recreational time, then I submit we are falling far short of the desired outcomes. I am not convinced that the problem is one of less competitive and athletic sports so much as it is one of proper recognition of the fact that somewhere along the line we should also be giving guidance in recreational pastimes of a participant nature, in which skills are not so complicated that only those of great ability can ever achieve success.

Because I belong to that strange breed of people known as dedicated fishermen, I believe that fishing is such a sport or recreational pastime. Fishing can be the simplest of sports and it can also be the most demanding of all sports. It is entirely up to the fisherman and the particular standard of perfection he wishes to reach. My two little daughters each took her first trout at the age of three years. I know one angler here in Kamloops who is still fishing at the age of ninety-two. In practically all cases a fisherman must be an active participant in his sport and all you need to do to succeed is to catch a fish. This may be simple or easy, challenging or not, but it is always a sense of achievement. To many people this simple measure of success is the only taste of real success they ever achieve on their own, in a world that is rapidly forgetting the individual.

Where do tired presidents, dukes, company directors, and the great planners go when they want to get away from it all and just get back to nature and the great soothing effect it has on their tired minds and bodies? They go "Fishing." If this cure is good for the great minds of all times, is it not also good for the small minds too?

Over the years I have taught many people to fish, but I think the greatest pleasure I ever had from such teaching was through a boy in Penticton whom I taught to fish several years ago. He was a lad who found success in the academic and athletic world hard to come by. I shall always remember the look of pleasure and confidence on his face when he landed his first fish on one of our little outings. I have seen that look on many people since, and I get the greatest pleasure when I see it on the faces of my family.

Fishing does not require the construction of expensive buildings, the fancy equipment or the high tension excitement that is so much a part of all phases of modern living. All that is necessary is the water and the fish, and in this province we are blessed with an abundance of both. Why not spend a little educational time in guiding our youth into a greater use of these facilities so generously supplied by nature? How long is it going to take the world of professional educators to realize that the vast majority of people no longer have to labor long hours every day in order to earn a living? There are 50,000,000 fishermen in the U.S.A. There are over 250,000 here in B.C. I wonder how many participating athletes there are in B.C. and the United States in all competitive games.

Besides fishing there are sports and pastimes such as rock collecting, camping, hunting, bird-watching, hiking, etc., that require the active participation of the individual. Isn't it time that we gave a little more attention to the high sounding goal of educating the individual for living in a modern society that does not require all his waking hours be spent in the pursuit of earning a living?

I am firmly convinced that, as automation and the shorter work week become more wide spread, we will have to consider ways in which to teach people how positively to spend their increased free time. Therefore I submit that the teaching of fishing, hunting, camping, and similar recreational pursuits has a place in the school's recreational program. ★

Mr. Shaw for some time has been principal of Beattie Elementary School in Kamloops.

# for Your information

## Vancouver Salary Agreement (S.D.#39)

The Summary of Salary Scales inserted in the March issue of *The B.C. Teacher* reported that on appointment to the Vancouver system, teachers received a maximum credit for outside experience of eight years. We have been advised that this past policy has been changed.

Commencing September, 1962, salary will be determined by the same credit for past experience as is allowed by the Department of Education for salary grant purposes, i.e., full credit for experience in the public schools of B.C. and half credit for experience in the public schools of other provinces.

## Revelstoke Salary Agreement (S.D.#19)

There was an error in the "Remarks" column in the Summary for this school district. The "Remarks" should read:

E. in sec., PC scale. Perm. 2nd Class paid EB to 7th step.

\$75 per 3 units to higher cert. up to PA.

\$100 for one-room schools.

## Portland Canal Salary Agreement (S.D.#51)

The following figures for Portland Canal School District were received too late to include in the Summary:

Category	Min.	Max.	Increments
EC	\$3400	\$4150	4 x 150
EB	3900	5700	9 x 200
EA	4200	6200	10 x 200
PC	4650	6900	10 x 225
PB	4950	7650	12 x 225
PA	5300	8300	12 x 250

## Mathematics and Arithmetic Workshop

In the article about the Mathematics Revision, by G. W. Broadley and J. M. Lydiard, reference is made to the major project in in-service education beginning on April 30. The changes proposed in the Grade VIII mathematics course for September, and the introduction of a new course and textbook (*Seeing Through Arithmetic*, Hartung, Von Engen, et al) for Grade III are part of a continent-wide change in emphasis in the teaching of arithmetic and mathematics. We are fortunate, in British Columbia, that so much experimental work has been done at various levels in arithmetic and mathematics during the past five years. Moreover, our two Colleges of Education, and the Mathematics Departments at Victoria College and the University of B.C., have made significant changes in the courses that they have been offering in these fields. Accordingly many of our teachers are well aware of the new concepts and new methods of presentation that are basic to the changed Grade III and Grade VIII courses.

Nevertheless, it is the opinion of those who have undertaken experimental work in the field that an integrated in-service program is necessary in all schools in the province are to teach the new courses effectively in September, 1962. Thus the decision of the Federation Executive that the co-operation of the Department of Education, of the local School Boards, of the University and of Victoria College, should be sought in offering such a program. We are gratified that co-operation has been

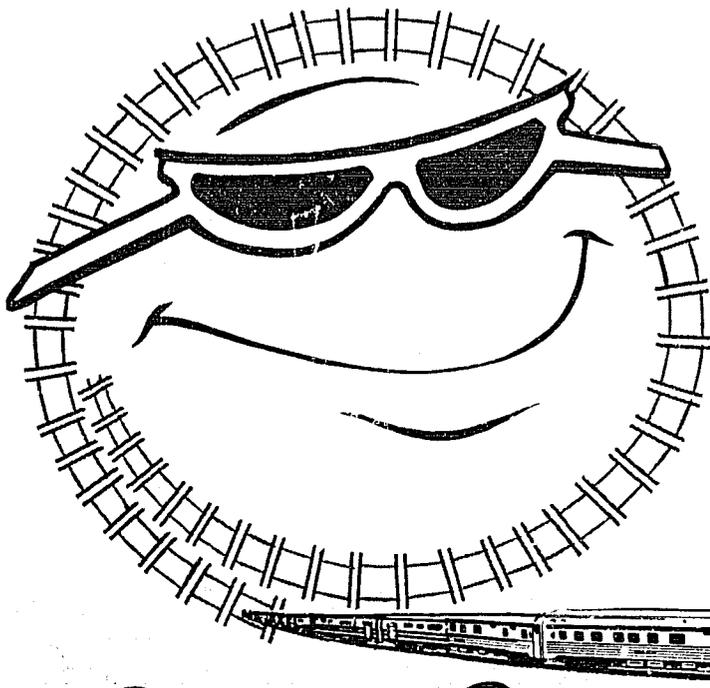
readily obtained. Plans are now well advanced for a one-week workshop, at the University, with one elementary and one secondary representative from most school districts. The costs of this workshop will be shared between the School Boards and the Federation (the former providing substitute teachers to enable the teachers to attend, the Federation paying travel and living costs of the participants).

The workshop will be under the direction of Mrs. Roberta Chivers, Primary Supervisor for Richmond, and Mr. Lloyd Costley, Secondary Supervisor for Burnaby. The chairman of the Federation In-Service Education Committee, and the president of the B.C. Association of Teachers of Mathematics will assist with the program. The kind co-operation of the Mathematics Departments of Victoria College and of the University, and of the two Colleges of Education, has made personnel available as lecturers and as discussion leaders. The planning of the project has been the responsibility of the Federation In-Service Education Committee in co-operation with the B.C. Primary Teachers' Association and the Association of Mathematics Teachers.

It is intended that the local representatives to the workshop of April 30 will be prepared to conduct a series of in-service meetings in their own districts. These local sessions should begin in May. All teachers who will be handling the new Grade III or Grade VIII courses in September are urged to take full advantage of these local in-service meetings in arithmetic and mathematics.

## Our March Cover Picture

Through an oversight, the usual identification of our cover picture was omitted from the March issue. The picture, supplied by the Photographic Division of the B.C. Department of Recreation and Conservation, was entitled "Trout Fishing below the Hoodoos, Dutch Creek, B.C."



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In Trail Mr. and Mrs. Aitchison visited the occupational class taught by Mr. W. D. C. Ewing.

on *Your* behalf.

**F**EWER COMMITTEE meetings have been held in the Teachers' Building in the month from February 15, but there has been a great increase in the number of meetings of P.S.A. executives and committees. Among the Federation committees meeting were the following: Curriculum Directors, Pensions, Relations Commission, and Teacher Education and Certification. Sub-committees of the TV Committee and of the In-service Education Committee have been meeting to make plans for workshops.

**February 15**

K. M. Aitchison, president, was in Creston, where he addressed a meeting of the Teachers' Association.

**February 16, 17**

Mr. Aitchison and J. A. Spragge, Executive Assistant, attended the meeting of the East Kootenay Dis-

trict Council in Cranbrook at which the main topic of discussion was Federation policies. First Vice-President H. M. Palsson and Assistant General Secretary Stan Evans were in Nanaimo to attend the South Vancouver Island District convention. Second Vice-President J. W. Stewart and Executive Assistant W. V. Allester were in Langley for the convention there. C. D. Ovans, General Secretary, attended the sessions of the West Vancouver convention.

**February 17**

Mr. Allester attended a meeting of the executive of the B.C. Principals' and Vice-principals' Association to discuss curriculum matters.

**February 19-21**

Mr. Aitchison continued a series of visits in the Kootenays, and attended meetings of the Arrow Lakes Teachers' Association, Nelson Teachers' Association, Grand

Forks Teachers' Association and Trail Teachers' Association.

**February 21**

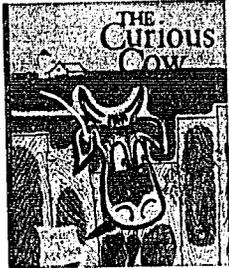
Mr. Ovans was in Victoria for a meeting with the Greater Victoria Teachers' Association. Mr. Evans attended a meeting of the B.C. directors of the Canadian Association for Adult Education at the University. Mr. Spragge was in attendance at a meeting of the Burnaby Teachers' Association at which convention issues were discussed. Mr. Allester attended a meeting at the University concerned with the Mathematics and Arithmetic project of the In-service Education Committee.

**February 22**

Mr. Ovans was in Victoria to attend sessions of the Legislature. Mr. Allester attended a meeting, with Mrs. L. A. Hanney and J. S. Young, of the Professional Committee on Elementary Curriculum, which was held in Vancouver.

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**February 23**

Mr. Aitchison attended the elementary section of the Fraser Valley East convention, held in Mission City.

**February 23, 24**

Mr. Spragge attended the sessions of the Fraser Valley East convention in Mission.

**February 24**

F. J. Cairnie, Secretary-Treasurer, joined Mr. Spragge in Mission for sessions of the Fraser Valley East convention. Mr. Palsson represented the Federation at the High School Conference banquet at the University. Mr. Evans was in Prince George for the North Central Regional Conference on Education. Chairman of the planning committee was Mr. D. N. Weicker, Geographical Representative. Visiting resource people were Dr. J. E. Kania, president, B.C. Council on Education; Mrs. Dorothy Rizer, Faculty of Education; Dr. Coolie Verner, Faculty of Education; and J. S. White, Director of Technical and Vocational Education, Department of Education. Approximately 100 persons attended the conference, at which the main theme was "Priorities in Education."

**February 26**

Mr. Evans addressed a public meeting in Vanderhoof on "New Developments in Education in B.C." Approximately 70 people attended the meeting. In the afternoon, Mr. Evans met with some of the teachers of the area.

**February 27**

Mr. Palsson addressed the Millstream P.-T.A. on the new Grade VIII program. Mr. Allester, Mr. J. S. Church and Mr. B. G. Webber were in Victoria for a meeting of the Professional Committee on the Secondary Curriculum. Mr. Evans was in Burns Lake, where he addressed another meeting on "New Developments in Education in B.C." Approximately 95 people attended this meeting.

**February 28**

Mr. Aitchison attended a meeting of North Vancouver Teachers' Association to discuss Federation

affairs. Mr. Allester attended another meeting to discuss the In-service project on arithmetic and mathematics.

**March 2, 3**

Mr. Aitchison and Mr. Spragge were in Prince George for sessions of the North Central District convention. W. H. Janzen, Past President, and Mr. Evans attended the Surrey convention, while Mr. Allester was in Port Alberni for the Alberni-Ucluelet convention.

**March 4-8**

B.C.T.F. representatives to the Canadian Conference in Montreal were: K. M. Aitchison, H. M. Palsson, J. W. Stewart, F. J. Cairnie, B. C. Gillie, D. J. S. Smith, C. D. Ovens and S. Evans. During this same period Mr. Allester and J. S. Church, chairman of the Curriculum Committee, attended the 17th Annual Convention of the Association for Supervision and Curriculum Development held in Las Vegas.

**March 9**

Mr. Evans was in Toronto to meet with our Eastern Advertising Representative and to chair a meeting of a committee of editors of

educational publications which considered problems of concern to educational editors in Canada. Mr. Allester and Mr. Church visited Santa Barbara High School to learn about the work-experience program operated by the school districts of Santa Barbara County.

**March 12**

Mr. Evans was in Victoria for a briefing session for the 36 teachers of the Victoria area who served as resource people for the workshop sessions on B.C.T.F. Day at Victoria College on March 15. Mr. Evans also held informal discussions on some aspects of education with Mr. F. P. Levirs, Assistant Superintendent of Education (Instruction) and Chief Inspector of Schools E. E. Hyndman.

**March 13**

Mr. Stewart represented the Federation at a luncheon on B.C. School Trustees' Day at the College of Education.

**March 14**

Mr. Ovens and H. N. Parrott, chairman of the Teacher Education Committee, attended a meeting of the Joint Board of the College of Education.

Among those attending the meeting of the East Kootenay District Council on February 16 and 17 were, from left to right; Adam Robertson, Creston; K. M. Aitchison, B.C.T.F. President; Brian Johnson, Geographical Representative, Jaffray; Bill Whalley, Creston; and J. A. Spragge, B.C.T.F. Executive Assistant.



THE B. C. TEACHER

## Across the desk

### The Curriculum Committee Replies to Mr. Worthington

3505 West 26th Avenue,  
Vancouver 8, B.C.

The Editor,  
Dear Sir:

I read with interest the comments of Douglas Worthington (in the February issue of *The B.C. Teacher*) on the potential value of the Newsletter. I heartily agree "... that the Federation will only be as militant (and progressive) as its members." If the interest of Mr. Worthington indicates a new enthusiasm and a new sense of participation and identification, then the Federation will play an increasingly active role in education in our province. The fear of Mr. Worthington of teachers becoming "docile civil servants" will be averted.

I believe, however, that Mr. Worthington has made some remarks about Federation representation on Curriculum Committees that are not in accord with the facts. It was as recently as the 1961 Annual General Meeting that the request that the Department re-establish "a Central Curriculum Revision Committee comprised of representatives of the Teachers' Federation, the University and the Department of Education" was re-endorsed. The two Professional Committees on Curriculum, one elementary and the other secondary, which the Department established in August, 1961, were a direct answer to this request from

the Federation.

The three Federation representatives serving on each committee are not "sworn to secrecy" as Mr. Worthington fears. On the contrary, the terms of reference under which the Federation members accepted appointment indicate that they are to bring to the Department proposals for the consideration of their "constituents." The section of the Newsletter to which Mr. Worthington refers was a plea to teachers to give serious consideration to the problems before the two Professional Curriculum Committees. The Federation representatives have prepared lengthy reports on each of the meetings of the two committees for circulation to all provincial specialist and local associations. The Federation Curriculum Directors have reported in the minutes of their monthly meetings recent problems, proposals or suggestions arising in meetings of the Professional Curriculum Committees. The Directors have sent three questionnaires to local associations and to provincial specialist associations so that teachers' reactions on current proposals can be collected and assessed. In this manner the Federation representatives in the two Professional Curriculum Committees attempt to represent the considered opinions of the teachers.

The Curriculum Directors have noted this past year that Federa-

tion members serving on Departmental Revision Committees have been granted far more freedom than formerly to report and to consult. The Directors and the curriculum representatives of interested P.S.A.'s have received progress reports from several different Revision Committees. Likewise, there have been a number of reports on the work and problems of Revision Committees made to Fall and Spring Conventions. The Directors have noted this trend with some satisfaction as they believe that the process of consultation between Revision Committees and interested teachers represents a positive gain for teachers in having "a say in what is to be taught."

Yours sincerely,  
JOHN S. CHURCH,  
Chairman,  
Curriculum Committee.

#### About the Special Issue

Campbell River, B.C.,  
Feb. 19, 1962.

Dear Stan,

I have just read the latest *B.C. Teacher* magazine and would like to congratulate you and your staff on your fine efforts.

The quality and value of the various articles have improved a great deal and in my estimation we now have a magazine that does credit to our Federation.

Congratulations again, and my very best wishes.

Yours sincerely,  
JAMES SMITH,  
Principal,  
Jr.-Sr. High School.

Comox, B.C.  
Feb. 25, 1962.

Dear Stan,

At an English workshop held in Courtenay this morning, I was asked to write to you to congratulate you and to express the appreciation of all teachers of English for the superb February issue of *The B.C. Teacher*. We were all most impressed by the excellence of the most helpful articles.

Thank you very much.

Yours sincerely,  
ERIC L. HAFFENDEN,  
Chairman.

Vancouver, B.C.,  
Feb. 27, 1962.

Dear Mr. Evans,

We have just examined the January and February issues of your *B.C. Teacher*, and must congratulate you on the artistic and attractive appeal of the covers. These, with the new format of your magazine are a great improvement; the

literary content is of a high standard.

We read the comments in "Across the Desk" about the "New Look"; the compliments are well deserved. There is one comment from a reader with which we do not agree—it concerns the heading on your cover being without punctuation marks or capital T's. There is such a thing as artistic license. After all, the function of punctuation is to make the meaning clear—it has no other purpose. In design, your heading, being separated by sizes of lettering, does not require any punctuation to clarify its meaning. The addition of capital T's and periods after B and C would tend to clutter up the design; it is simple and effective as it stands.

Dear Editor, you may say to yourself, "Here's that anonymous guy again!" A pseudonym is used because we do not seek publicity; the writer has no desire to get his name in the paper; he has no axe to grind; on the other hand, he has nothing to conceal—he has never been in jail or in any derogatory predicament!

Yours truly,  
GUYON STREET.

## Summer in California

717 North Janss St.,  
Anaheim, California.

The Editor,  
Dear Sir:

Is there a B.C. teacher who would like to trade homes with me for July and August? Particulars are as follows:

Southern California (Anaheim) home one mile from Disneyland; 3 bedrooms, 1½ baths, comfortably appointed; profuse shrubbery, roses, camellias, dichondra; sprinkler system for lawn. Lawn and shrubbery will be taken care of by professional service, including water bill.

Each of us to take care of utility bills where we live during the months of July and August. We will exchange credentials and pictures, and execute a mutually acceptable agreement. Adults favored but not required.

We would like to obtain a reasonably similar home near Vancouver.

We are two teachers, one retired; the other has exchanged a year of teaching in Herts, England.

Yours very truly,  
CLAUD L. BOOTH.

### CANADIAN RED CROSS SOCIETY

invites applications for the position of

#### NATIONAL DIRECTOR OF JUNIOR RED CROSS

The appointee will be expected to give leadership in the development of training programmes for field staff, teachers, high school and university students and in the extension of the international activities of the Junior Red Cross. The position will entail some travel both in Canada and abroad but will be based on the National Office in Toronto.

We are seeking a well-qualified educator, male preferred, with experience in administration and group work but applicants from public health, social work or other related fields will be considered.

The position offers a great deal of scope to a dynamic person with vision and imagination.

Salary will be determined in relation to the qualifications and experience of the applicant. The Canadian Red Cross Society has a liberal program of fringe benefits.

Persons interested should apply by confidential letter stating qualifications, experience, availability, references and salary expected to: The National Commissioner, Canadian Red Cross Society, 93 Wellesley Street East, Toronto 5, Ontario.

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# new Books

ESTHER G. HARROP, Book Review Editor

## ARITHMETIC

*Short Cuts in Computing*, by Wm. Glenn and D. A. Johnson. Webster Publishing Co., St. Louis. c1961. 46 pp. 95c

This is another booklet in the series mentioned above. It is an excellent compilation of short cuts found in many texts of arithmetic, including checking by casting out nines. All short cuts and checking methods are described for those who want to know "why they work." Many exercises with answers are included.—C.E.McL.

## EDUCATION

*Education and the Teacher*, by B. J. Chandler. Dodd, Mead, Toronto, 1961. \$5.00

This is written for young people who are beginning preparation for a career in Education. The author's enthusiasm and knowledge of his subject will inspire future teachers. Each of the book's four main sections—The Importance of Teaching, Preparation for Teaching, The Work of the Teacher, and The Profession of Teaching—covers the area thoroughly. However, it is difficult to recommend this book to Canadian students because it is specifically directed toward American education.—N.R.S.

*Educating the Gifted—An Axiomatic Approach*, by Vergil S. Ward. Chas. E. Merrill, Columbus, O., c1961. \$5.75

Most books on the gifted deal with various types of administrative or specific curricular provisions for these pupils. This book is a philosophy of education of the gifted. The author believes that the abilities of this group are sufficiently superior to justify unique educational provisions. He, therefore, presents a comprehensive set of principles by which educational practices for the gifted may be judged. The reviewer found this a stimulating book with a fresh approach.—S.R.L.

*Mental Retardation—Readings and Resources*. Holt, Rinehart and Winston, Toronto, 1961. \$6.75

This is an excellent book containing 56 articles on mental retardation written by outstanding authorities, as well as resource supplements. It would give a good overview of the topic to teachers, social workers, nurses, and PTA leaders,

as well as to intelligent parents. It is written for use as a text in an introductory course in mental retardation. Highly recommended.—S.R.L.

## FRENCH

*On Parle Francais*, by Florence E. Brandford. Longmans, Green, Toronto. Illus. \$3.00

A very good book for pupils in third or fourth year French in elementary school. The material is presented in an interesting and cumulative manner and vocabulary is within the sphere of the child's experience—words and expressions that could be used at home or at play.

A teacher's manual, *Oral French Programme, Book 3*, accompanies *On Parle Francais*. It consists of a series of lesson plans and suggests modes of procedure. The manual is priced at \$2.60.—M.C.

## INDUSTRIAL ARTS

*Machine Shop Theory and Practice*, by Hallet. Macmillan, Toronto, 1961. Illus. \$1.75

Here is a book which should appeal to the junior grades of our secondary schools. Explanations are concise and to the point. Drawings and photographs are good. It should help to inspire boys interested in this area of industrial education, to proceed to further investigation.—R.T.C.

*An Introduction to Technical Drawing*, by H. O. Haigh. Longmans, Green, London, 1960. Illus. \$1.65

An excellent book for Industrial Arts classes using 1st degree projections, but of no value to students in Canadian-American classes where 3rd degree projections are used.—G. McC.

## MATHEMATICS

*The World of Measurement*, by Donovan A. Johnson and William H. Glenn. Longmans, Green and Company, Toronto, c1961. 64pp. \$1.10

This book and the one below are two of a set of 12 called "Exploring Mathematics on your own." This book is not only valuable as a teacher reference but also as a student self-taught book. It is well suited for mathematics up to Math 31 and could be interesting to science students. Error of measurement, signifi-

cant figures and rounding off numbers, are well handled with suitable exercises and answers on a removable sheet.—C.E.McL.

*Adventures in Graphing*, by William H. Glenn and Donovan A. Johnson. Longmans, Green, Toronto, c1961. 64pp. \$1.10

The easy, practical, and not too theoretical approach to equations, lines, slopes and intercepts make this book of value for Math 30 and Math 91. It also includes an introduction to three-dimensional graphing. With the exercises included, this book could be a good one for students who wish to go beyond the textbook.—C.E.McL.

## MISCELLANEOUS

*Theory and Practice of Supervision*, by J. Minor Gwynn. Dodd, Mead, Toronto, 1961. 473pp., diagrams. \$6.75

The author's thesis is that supervisory personnel should help to provide the best possible learning situation. He specifies ten major facets of a modern supervisor's job, then shows how best to accomplish them. Especially helpful are chapters on evaluation of students, techniques for in-service improvement of teachers and special problems of supervision in elementary, junior and senior high schools. Methods suggested are non-authoritarian.

An appraisal of various rating devices is timely and informative. A practical up-to-date book which should be very useful to all ranks of supervisory personnel.—R.E.G.L.

*The Work of the Counsellor*, by Leona E. Tyler. Appleton-Century-Crofts, New York, 1961. \$4.75

"Lucid, scholarly, and practical," are the words used by Dr. M. B. Nevison, of the College of Education, who has chosen this book as a text for Education 578—Advanced Seminar in Theories of Guidance and Counselling, and has also included it in her "Basic Library for Counsellors." This book is useful for both the beginning counsellor or guidance teacher and the most experienced administrator. Particularly instructive are the chapters on The Initial Interview, The Use of Tests, Decision-making Interviews, Evaluation of Counselling Effectiveness and The Counsellor as a Person. Professor Tyler has revised her earlier (1953) edition, selecting as her key words, "choice, decision and plans," in an effort to make this edition even more explicit in its theoretical approach to counselling. She includes recent research summaries for evaluation. If you could buy only one as a counselling reference, this is it! —N.A.McI.

*Bright Hunter of the Skies*, by Herbert Best. Macmillan, New York, 1961. \$3.50

Here the reader will find considerable information about the art of falconry, and the customs of the times when this

amusement was fashionable. Between 1100 and 1600 A.D. falconry was the favorite and universal sport of church and state. Facts relevant to holding, training and using the birds are included in a very carefully written introduction and followed by nine chapters of direction for a thorough enjoyment of the sport. A very careful reading of the text is recommended.—E.G.H.

*Great Canadian Disasters*, by Frank Rasky. Longmans, Green, Toronto, c1961. \$5.50

The ten Canadian disasters described in this book will hold the attention of all readers. Wind, land and sea all play their parts in the gripping tales. Heroism and unselfish conduct tell us in story form how people react under tragic circumstances. Interesting and breath-taking accounts have been gathered into a very fine group.—E.G.H.

*The Status of the Secondary School Teacher in Ontario*. A Symposium prepared by Ontario Secondary School Teachers' Federation. Toronto, 1962. Appendices.

There is no doubt whatever that this symposium prepared by members of the Ontario Secondary School Teachers' Federation is highly interesting and informative. The individual members whose work comprises the text have demonstrated clearly many of the problems and situations with which teachers are faced. That credit has been given to work and plans suggested by various individuals in many fields, and that commendation has been accorded to the character and work of the late Mr. J. W. Ansley, a former principal of the York Memorial Collegiate Institute (who was known to the reviewer) is most satisfying. While the subject matter of this book is limited to the Secondary School Teachers of Ontario, there is no reason that it could not apply to those in the same category of other Canadian provinces.

The clarity with which the work done by the Ontario Secondary School Teachers' Federation to assist teachers throughout the province is explained, the steps taken to show the difference between the terms of Specialist and Non-Specialist teachers, the help given by this association to all teachers in secondary schools are very thought-provoking. This is an excellent treatment of an educational subject.—E.G.H.

#### SCIENCE

*Teaching Science in Canadian Schools*, by Maynard Hallman and A. Clare Hume. Grades 1, 2, 3. Prairie Edition. Holt, Rinehart & Winston, Toronto, 1961.

No price mentioned.

This manual, a guide for teaching science at the primary level contains a list of units for each grade treated in a separate section. Each is treated under headings as follows: Foundation concepts, Preparation for and Suggestions for teaching the unit, Expected attainments and bibliography.

A special feature is the space provided at the end of each unit for teachers to add their own notes for future reference. Headings here are Organization, Techniques used, Enrichment ideas and Evaluation. In the Grade II and III sections there are interesting experiments described for some of the units.

Although this book is the Prairie Edition, the subject coverage is similar to that of the B.C. Program of Studies. Suggestions for classroom activities would be useful anywhere. The author aims to

help the teacher develop science as a rewarding study.—R.A.R.

*Chemistry for the Space Age*, by Dan Q. Posin. Lippincott, Chicago, 1961. (Can. Agt. Longmans, Green, Toronto.) Appendix. Diagrams. Col. Plates. \$6.60

The author, a distinguished scientist and educator, has utilized both of these qualifications to produce a truly outstanding text that would be extremely

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useful to both teachers of chemistry and students alike. Early chapters, dealing with basic chemistry, provide current applications. Later chapters deal with the momentous role chemistry plays in the space age.

The text is enhanced by the numerous excellent diagrams and admirable color illustrations. Particularly helpful to the student are the learning exercises spaced throughout the text as well as problems and sources for reference. The appendix consists of several pages of the latest charts and tables.—D.G.N.

*Looking Around—Book I*, by A. T. Glover and I. V. Young. Clarke, Irwin, Toronto, 1960. Illus. 95c

This book designed to develop powers of observation in primary pupils has a slant towards science and geography. It will be useful in nature classes, and should create an interest in the succeeding three books of the series.—E.G.H.

*The Young Experimenter*, by N. F. Newbury and H. A. Armstrong. Clarke, Irwin, Toronto, 1960. Illus. \$2.00

A useful book—the first of a series of three for the beginning science classes. The second is *The Junior Chemist* and the third *Teacher's Book*. *The Young Experimenter* is well laid out and designed to create a desire in the student to make his own science notebook.—E.G.H.

#### SOCIAL STUDIES

*The Gift of Rome*, by John and Esther Wagner. Little, Brown, Toronto, 1961. \$4.50

Cicero undertakes the defense in a murder trial in ancient Rome. A passable novel for teacher background reading, not for the student below university level.—W.C.E.

*The Roman Occupation of Britain*, by I. Doncaster and I. Bullard. Longmans, Green, Toronto, 1961. \$1.35

Subtitled "Evidence in Pictures," this little volume presents splendid photographs of the material evidence of the Romans in Britain. Highly recommended for the junior high or Grade VII library.—W.C.E.

*The Twentieth Century*, by R. S. Lambert. House of Grant, Toronto, 1960. Illus. \$2.90. Canadian Heritage Series, Bk. IV.

This text covers the history of Great Britain, Canada and the U.S.A. during the twentieth century. The role of these three countries is discussed in relation to the main currents of world affairs. Well organized and with useful photographs, charts, maps and diagrams throughout, it is a good reference for Social Studies 20 teachers and students.—N.R.S.



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Applications are invited for the following positions, commencing September 4, 1962.

- (1) **PRINCE CHARLES SCHOOL FOR RETARDED CHILDREN**—4 experienced teachers required. Small classes of 10 pupils whose I.Q.s' are less than 50.
- (2) **MAJOR WORK CLASSES**—3 teachers required, one for each of grades 4, 5, and 6. Classes of 30 gifted pupils. Teachers must have an excellent record of teaching experience. This programme in enrichment is a research project of a team from the College of Education.
- (3) **SECONDARY SCHOOLS**—Teachers of girls' physical education; librarian; Latin; French; junior occupational (1st and 2nd year); general subjects; girls' counsellor; boys' counsellor.
- (4) **ELEMENTARY SCHOOLS**—Teachers for primary grades; intermediate grades (preference given to capable experienced teachers interested in administration work)

<b>SALARY SCHEDULE</b>	EB — \$3,500 to \$5,100 (increments, \$200)
	EA — \$3,850 to \$5,950 (increments, \$200)
	PC — \$4,200 to \$6,995 (increments, \$215)
	PB — \$4,600 to \$7,850 (increments, \$250)
	PA — \$5,000 to \$8,250 (increments, \$250)

Teachers of Major Work classes, Retarded Children classes receive extra remuneration. Teachers with PA certification and Master's degree, teaching 50% or more of time in field of major in Master's degree, receive extra \$200 per annum.

Application forms may be received from and interviews arranged with the Superintendent of Schools, 721 Chesterfield Ave., North Vancouver. Telephone YUkon 7-8141.

## about People

### Sketches of Two Executive Members

**James W. Bourdon**, who has represented North Shore District Council for two years, was born in Pouce Coupe. He attended school in Creston and graduated from Victoria Normal School. He also attended both Victoria College and the University of B.C., from which institution he has both B.A. and B.Ed. degrees. Mr. Bourdon earned his degrees after service in the R.C.A.F. from 1942 to 1945. His first teaching position was in Creston and, after return from war service, he went to Alberni for a year. In 1949-50 Mr. Bourdon taught in Squamish and



**J. W. Bourdon**

since that time has taught in North Vancouver, where he is at present principal of Eastview Elementary School. Mr. Bourdon has been very active in local association and district council affairs, having served as a member of workshop and fall convention committees and as chairman of a salary committee. He has held office in his local association, including the presidency of North Vancouver Teachers' Association in 1957-58. He has served four terms on the North

Shore District Council. He is a member of the North Vancouver Liaison Committee. Mr. Bourdon is married and has two sons. His hobbies and interests include fishing, reading, and sports.

**Guy A. Graham** was born in Northumberland and attended school near Newcastle-upon-Tyne. He attended the University of Durham from which he received an honours degree in History and Economics and a teaching diploma. He also holds degrees of Bachelor of Civil Law and Master of Arts. Mr. Graham joined the army at the outbreak of war, was commissioned in the Lincolnshire Regiment, served in France and Belgium, was wounded and taken prisoner at Dunkirk. Following demobilization after the war, he taught in northern England for three years before coming to British Columbia. Mr. Graham has taught in British Columbia for ten years, the last seven in Salmon Arm. This year he was appointed vice-principal of Eagle River Elementary-Senior High School, Sicamous. He has been active in local association affairs, having been chairman of the local salary committee, the pensions committee and the committee which presented a brief to the Royal Commission. He has also been president of the Salmon Arm Teachers' Association. At district council level, he has served on the executive of the Okanagan Valley Teachers' Association for six years, on its agreements committee for a year, and has been president. He is now serving a second year on the B.C.T.F.



**G. A. Graham**

Research Committee and also as Geographical Representative. Mr. Graham is active in church work in his community and is a member of the Canadian Legion. He maintains an interest in sport of all kinds (mostly as a spectator). He also operates a small orchard. Mr. Graham is married and the father of a small daughter.

#### **In Memoriam**

**James G. Sinclair**, former principal of Vancouver Technical School, died on March 18, 1962. Mr. Sinclair came to Canada in 1910 and joined the Vancouver School System as a manual training teacher. He transferred to the technical staff at King Edward High School in 1913. He was with the branch when it was set up as the Technical School in 1921, and became vice-principal. In 1930 he became principal of the Technical School. He retired in 1944. He served on the Vancouver School Board for two terms commencing in 1945 and was its chairman in 1946.

### Indian-Eskimo Scholarship

The Hudson's Bay Company Scholarship, administered by the Indian-Eskimo Association of Canada, is open to an outstanding student of Indian or Eskimo background to enable him or her to attend University for four years. It will have an annual value of up to \$2,500, in accordance with need; in addition, the Hudson's Bay Company is willing to guarantee to the scholar employment with the firm during each summer vacation and, in exceptional circumstances, to consider helping this scholar to continue through graduate studies.

Students of Indian or Eskimo background, whether or not they have recognized status as members of Canada's native peoples, will have an equal chance to apply, irrespective of their location in Canada, their religion, or their sex.

The choice of scholar is to be based in general on scholastic ability, with some consideration of character and adaptability.

Full information and application forms may be obtained from Mr. John Melling, Executive Director, Indian-Eskimo Association of Canada, 47 Dundonald Street, Toronto 5.

### Chez Vous a Paris

Chez Vous a Paris is an independent organization supported by World University Services of Canada and France-Canada for furthering cultural relations between Canada and France. It aims to bring Canadian students into close contact with families and students in Paris, to improve their French and

to give positive guidance in appreciating the historical and cultural wealth of Paris. Teachers as well as students can be accommodated by the organization.

This program for learning of French life in a personal way is planned so that participants spend twenty-eight days in Paris as guests in a French home. The tour leaves Canada on July 2 and returns on September 2. Full information may be obtained from Mr. J. Warwick, Department of Romance Languages, University of Western Ontario, London, Ontario.

### Overseas Education League Tours

Information concerning tours sponsored by Overseas Education League is contained in a brochure recently issued. Tours to Britain, Europe, the Orient and other parts of the world are available. A copy of the brochure may be obtained from Overseas Education League, 240 Somerset Building, Winnipeg 1, Manitoba.

### Water Safety Week

The week of May 7 to 12 will be Water Safety Week, a program sponsored by the Canadian Junior Red Cross. Its purpose is to give high school students an opportunity to obtain knowledge on swimming and water safety methods, so that the toll of lives lost through ignorance of these safety methods may be reduced. Sponsors of Junior Red Cross groups should have received information on this program. The Junior Red Cross office will supply further information. Write to 1235 West Pender Street, Vancouver 1.

### Home Economics Convention

The Canadian Home Economics Association is holding its Twelfth Biennial Convention at the Chateau Laurier in Ottawa, July 2-5, 1962. Theme of the convention is "Capitalizing Home Economics." A varied program is being arranged which will include interesting speakers, panel discussions, tours, and social events. Immediately following there will be a four-day course on textiles.

Complete details of the convention and post-convention course may be obtained by writing to: Director of Information, 1962 C.H.E.A. Convention, 246 Clemow Ave., Ottawa, Ont.

**WANTED TO EXCHANGE OR RENT**—Summer School session—three bedroom home. Preferably near U.B.C. Write Peter Klassen, R. R. #1, Nelson.

**ROOMS FOR SUMMER SCHOOL**—22 single rooms for University Summer School—men only. Ideal location on Campus. Room and full board for period of seven weeks \$130. Please make reservations early to: The Bursar, Anglican Theological College of British Columbia, 6050 Chancellor Blvd., Vancouver 8.

**FOR RENT**—New Westminster: 3 bedroom, fully furnished modern home, den, sundeck. Available from June 30, 1962 to Sept. 1, 1963. Write G. R. Sankey, 910 Laurel St., New Westminster.

**WANT TO EXCHANGE**—a three-bedroom home in Kelowna for a home in Vancouver. July and August. Write E. N. Pedersen, 1141 Centennial Cres., Kelowna, B.C.

**ROOM AND BOARD**—Summer School session: women teachers preferred: \$17.50 a week. Close to U.B.C. Write Mrs. J. H. Moret, 4621 W. 11th Ave., Vancouver 8, B.C.

**FOR RENT**—3 b.r. house (sleeps 6) dble plbg., den, large sundeck, 3079 West 24th Ave., Vancouver 8. (RE 3-3879) G. F. Peirson. July 2 - August 18.

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A second summary of opinions of teachers on a series of questions posed by Mrs. Bailey and printed in our November issue.

## More of Your Opinions

RUTH GREENE BAILEY

**DIVERSE OPINIONS** fascinate the research journalist as do the viewpoints that blend in agreement.

Religion and the interpretation of the Scriptures have been controversial subjects for more than 2,000 years.

The search for truth and spiritual enlightenment goes on.

### The Question

Do you believe there should be more spiritual and scriptural instruction in the Canadian schools and couldn't the sound judgment of teachers be relied upon to keep this interdenominational?

The British schools' administrators trust the integrity of their teachers in this matter.

### Some Answers

"Being from Britain, I can vouch for the fact that British youngsters gain at least a reasonable acquaintance with their rightful heritage — the language and the ethics of the Bible, and I am an agnostic. Religious education, and therefore a basis for philosophical thought, is in a sorry state over here."

"Acquaintance with and study of the great literature and insights of the Bible should not be denied our children. They are an integral part of the heritage of the western world. Specialist training of teachers in this field might provide one possibility. Using scripture as a source of propaganda for sectarian purposes or as a great emotional panacea, as has been done in the past, should continue to be avoided.

"Many teachers use their 'integrity' at present to

overlook even the required scripture readings, so great is their horror of perpetuating that type of misunderstanding."

"Yes. I taught in a British school and used a standard Concordance. I learned as well as my pupils. If the teacher was a Christian, would denominational controversy affect her teaching?"

"Yes. There was an excellent unit on religion in the former Social Studies 20, when the text was Capen, *Across the Ages*.

"This text and the accompanying revision of the course was introduced in 1953 and thrown out in 1958 and 1959. I was on the curriculum revision committee for social studies in 1952 when the course was introduced and I taught the course and that unit for several years. I had no difficulty with parental or other criticism and there were students of all denominations including Catholic and Pentecostal as well as Sikhs and Chinese non-Christians. The students were tremendously interested."

"Not unless research was carried out and guidance given by means of suitable courses at the College of Education as it seems to me that many courses are given at the University by people who are not convinced that there is a Supreme Being and who are therefore not true Christians."

"No. I am glad that we have the Lord's Prayer and Scripture reading in our schools, but Christianity

can be taught best by example as well as precept in the home and church. It isn't a matter of the integrity of the teachers, but the misguided zeal of those who would 'compass sea and land to make one proselyte.'

"Let us not confuse the issue: religious instruction is one thing, secular education is quite another."

"No. Scriptural instruction is too isolated an approach to the teaching of religion and most of the world's people do not accept the scriptures. A teaching of comparative religion would be all right but it would have to be approached cautiously."

"Canada does not have a state church as England does, and we have a high percentage of non-Christians. It is unfair to teach a Jewish child Protestantism. To expect the teachers to keep the instruction inter-denominational, is to expect teachers to accomplish what the greatest theologians since the Reformation have been unable to do.

"While it is impossible to assemble ministers of every Christian faith at any type of service, when the Roman Catholics and Protestants do not even accept the same Bible, surely traditional religious education in the public schools is impractical."

"Yes. Like the British system. However, this subject must be left to the judgment of the teachers concerned, and should under no circumstances be

inspected, for this would lead to controversy thus breaching the public schools act. It also needs a country-wide syllabus before being accepted."

"The place for religious instruction is in the churches. Here we have qualified people who have studied the subject in all its complexity. Each individual church group places its own interpretation on religious writings. How can a teacher be inter-denominational?"

"A Buddhist, a Zionist, a Presbyterian, a Jehovah's Witness, a Latter Day Saints, a Mormon and a Quaker sat with me in a class in junior high school. The gods these companions believed in had no real similarity. The teachings in each of the religions differ.

"How can a teacher find the 'happy medium'? Certainly he can expound views on morality and associated themes, but is this 'religious' instruction? I do not believe so. How can he explain Jesus Christ's teachings to someone who does not even believe in Jesus Christ?"

"If religion must remain in the public schools, and particularly in the elementary grades, why cannot it be in the form of Bible stories — not Bible readings? Simple stories which a child can understand and from which he can derive some moral lesson would be most effective. This would be of immense value, both to the student and to the layman teacher who is trying to convey these same ideas on morality."

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"Why should a teacher be responsible for reading passages from the Holy Bible which conflict with his own personal views, particularly if he is of a faith which does not have the Holy Bible as one of its theological bases? Can an atheistic teacher be honest in giving religious instruction of the form that is given in England?"

"Yes. The history of all the great religions should be taught in the schools, including the history of modern religions. These possibly could be obtained from the theological colleges of the great Churches. Reading of the Bible passages never hurt anyone and has helped millions. From the point of view of literature alone, it is a part of education to know the Bible . . . its history, its prophets and its greatest passages."

*(I would be grateful if anyone might have suggestions to pass to me on what type of "comparative religions" and religious history of the ages might best be written for schools. Should there be 12 different books of different levels of learning from Grade 1 upwards? Could there not be adaptations to school use of some of the already great books on religions? How much religious history is taught in present Social Study courses? — Ruth Greene Bailey, 2651 Mathers Avenue, West Vancouver, B.C.)*

#### MATURING NEW TEACHERS

##### The Question

What do you think are the best ways to "mature" newly trained teachers so that they may contribute to the high standards of the teaching profession?

##### Some Answers

"Leave newly trained teachers alone for at least one term. No inspection, no intrusion, but appoint one very sympathetic fellow teacher (preferably a volunteer, and acceptable to the new teacher) to be available at any time to help with advice, suggestions as to method, etc., who would accept responsibility for the beginning new teacher's happiness and peace of mind."

"Teachers should be 'matured' by a University degree as well as teacher training. A few years of experience, a good administration within the best system we can arrange and a love of the job should do the rest."

"Other professions have a period of internship when an untrained colleague is obliged to work alongside a more experienced person for a year or two. The time allotment to teaching practice must be lengthened to a year at least."

"Insist on an academic degree, a university course with wide cultural coverage as a preliminary to entrance to the profession. This course should include history, all the social sciences, sociology, economics,

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science, chiefly for the understanding of the part they play and have played, in human progress. Teachers can never have enough (much less too much) knowledge of the society in which they perform their services and in which, or preferably, of which their pupils are a part.

"Every teacher should go through a period of apprenticeship of perhaps three years, in which he experiences various school situations and gets a thorough knowledge of the educational system in which he is to function and of the profession itself. In this period of apprenticeship he should work in schools with master teachers working with them and learning from them. A system of pupil teachers comparable to this functions still, I believe, in England.

"During this three years he should, just as nurses do in their period of training, take lectures in Educational Practice and Theory given by practising teachers in a situation where he can see the theory applied and where he can make attempts to apply it himself. At the end of the three years he can make up his mind with some validity as to whether he wants to become a teacher and in what field of education he wants to specialize. Also, the profession itself can determine whether he is a suitable and acceptable candidate for the task of 'professional teacher.'

"The present set-up where a teacher has one year of probation and, if he is rehired for a second year, becomes a permanent appointee before he gets his permanent certificate (he requires two years of successful teaching and two favorable superintendent's reports before he gets his certificate) is ridiculous."

"The best maturing in people as in nature is not

the forced variety. However some conditions do favorably hasten the process. Working with experienced teachers who are sympathetic, alert to new ideas, emotionally balanced and professionally secure should create such conditions."

"Summer school workshops, observations classes and demonstrations of visual aids, books, etc., gave me the greatest help as a beginner. I was also fortunate in meeting teachers who were generous with their ideas, methods and experience."

"The present teacher is the product of the present school system. The school system and the teacher training system must change before 'maturity' can even be considered.

"This is the disease . . . so often does one get the remark from a Grade IX student, 'Oh, we did that in Grade VIII!' They have, of course, forgotten gladly the learning they were supposed to have done in an earlier grade. In other words there is no solid foundation upon which to build further learning. No interest or curiosity has been aroused. They have simply been successful in getting a test mark, which placed them in a good position on a predetermined graph of report marks. In any case the teacher is not free to develop the interests of the students because, come hell or high water, he must teach to the forthcoming test — nothing else matters! What is not set down in the course of study cannot be taught. This is even more disastrous for those of average ability. Everything depends on the experience and outlook of the teacher — some teachers, of course would be lost without the textbook."★

## The New Math 8

Continued from page 299

71/4 Decide which of the following statements are true.

- (a) 3 is a rational number.
- (b)  $4/6$  is a whole number.
- (c)  $0/18$  is a whole number.
- (d) Every natural number is a rational number.
- (e) Every whole number is a rational number.

127/4 Find three numbers between  $1/5$  and  $1/6$ .

78/2 To show that  $9 + (7 + 8) = (7 + 9) + 8$  without using addition facts, we would proceed as follows:

$$9 + (7 + 8) = (9 + 7) + 8 \text{ (associative principle)}$$

$$= (7 + 9) + 8 \text{ (commutative principle)}$$

- (a) Show that  $3 \times (2 \times 4) = 2 \times (4 \times 3)$

79/4 Work these pairs of subtraction problems:

- (a)  $6 - (5 - 1)$  and  $(6 - 5) - 1$ . (And more of the same.)

Does the associative principle hold for subtraction?

Fundamental skills are reviewed and practised and applications are presented in many problems.

144/17 A merchant buys goods and marks them to

sell for 40% more than he has paid for them. What did he pay for an article that he sells for \$126?

96/1 List the divisors of: (a) 15, (b) 9, (c) 20, (d) 1001.

Most questions require careful thought rather than mere reproduction and practice of techniques provided gratuitously by the text.

156/3 Describe in your own words rules by which the following non-repeating decimals are formed.

- (a) 0.1010010001 . . .

210/2(a) Indicate how the following blanks should be filled in.

- (a)  $(-5) - 4 = (-9)$  because  
 $(-9) + \underline{\hspace{2cm}} = (-5)$ .

246/14 Give an example from the physical world which illustrates three planes with exactly one point in common.

156/3 Invent rules for three new nonrepeating decimals.

Since the approach to many familiar problems is different from the traditional, it is important that teachers make themselves thoroughly familiar with the language and methods of the textbook. If this is not done, the value of the new approach may not be realized.★

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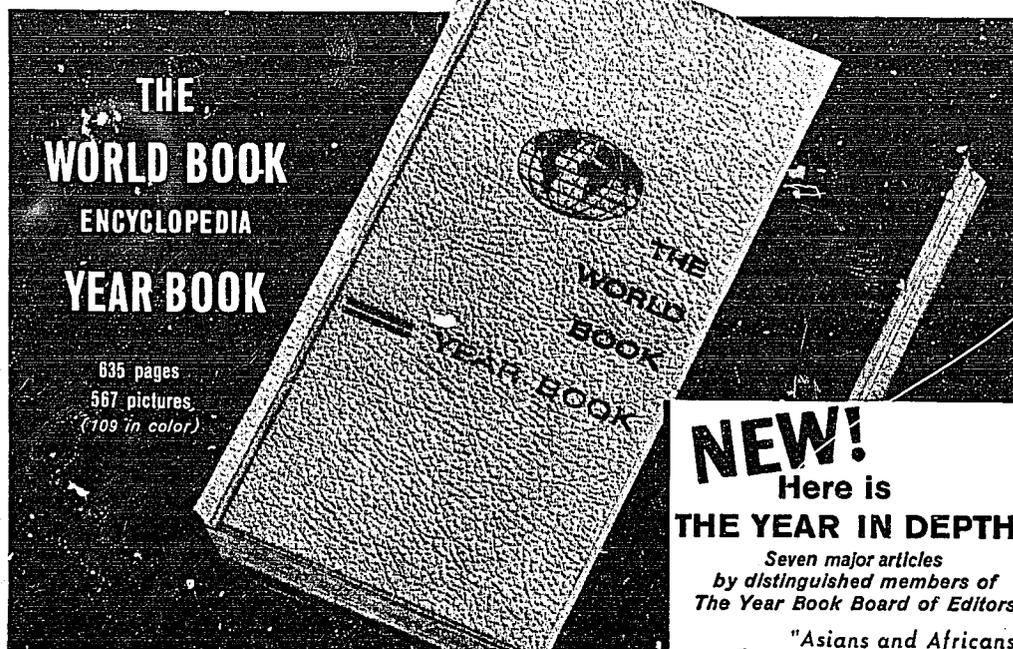
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