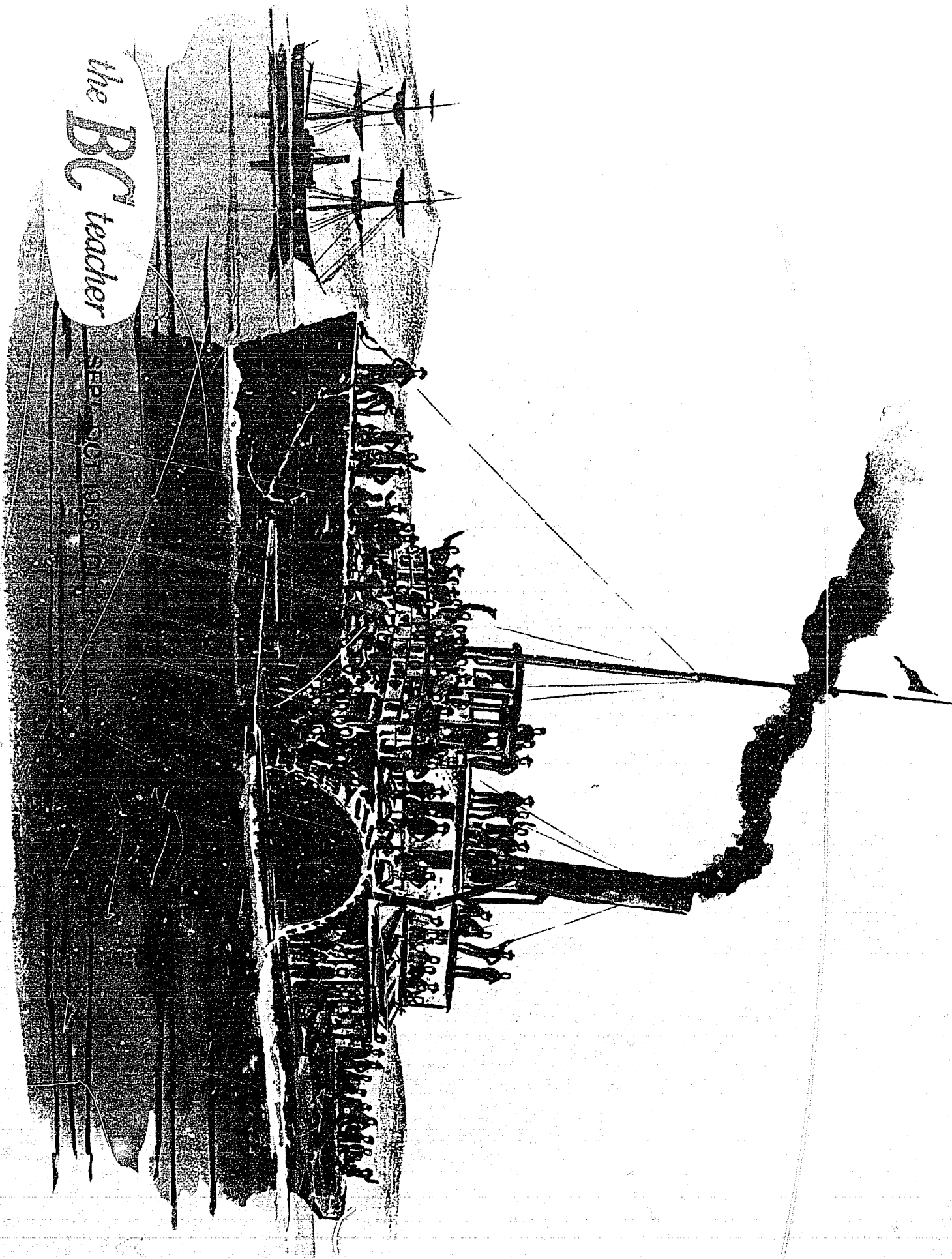
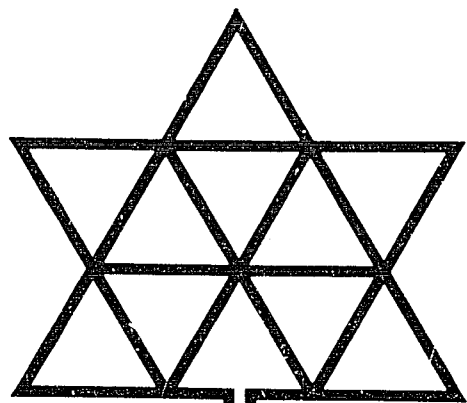


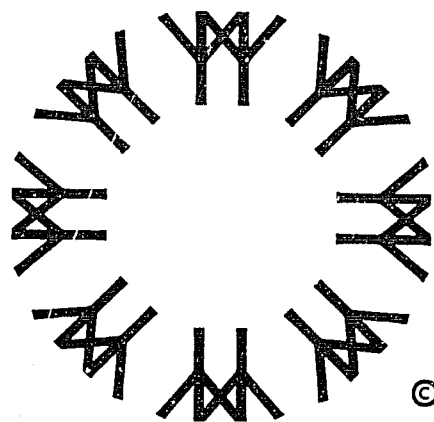
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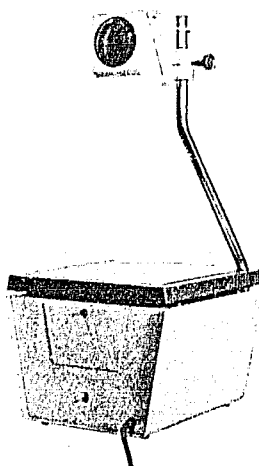
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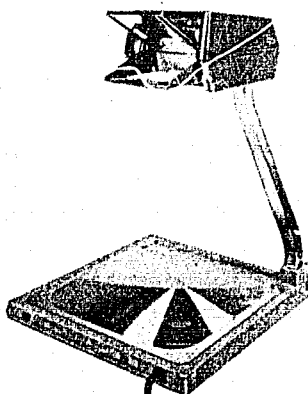
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The teacher at all times shall so conduct himself that no dishonor may befall him or, through him, his profession.

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SEPTEMBER-OCTOBER 1966

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Cover Picture

Another in our series of covers celebrating the centenary of British Columbia, this month's picture shows the SS Beaver making one of her many coastal trips. The painting is one of a series by Bob Banks, commissioned by the B.C. Centennial Commission of 1958. Permission to use the paintings was granted by the Provincial Archivist. The cover story is based on materials originally prepared by Dr. F. H. Johnson and W. H. Auld.

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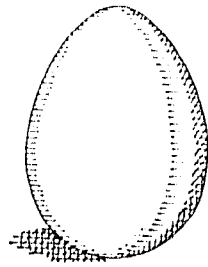
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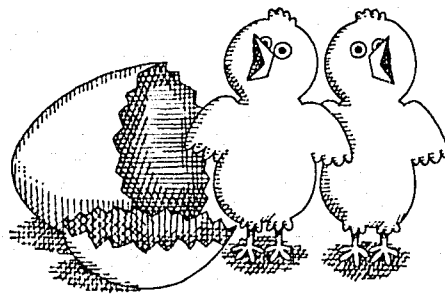
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THE EMPHASIS HAS CHANGED

MUCH HAS BEEN SAID of the explosion of knowledge, how both the amount and the nature of mankind's store of information is changing dramatically. Things are changing so rapidly that today's fancy is tomorrow's fact. Few people 'outside' education, however, have yet sensed the impact the explosion will have on the schools.

Teachers have traditionally attempted to 'cover' courses—that is, to transmit to their students a given body of knowledge. The knowledge explosion has not merely rendered this concept of teaching obsolete; it has made 'coverage' impossible.

Because we cannot know what particular knowledge our students will need in the future, we shall have to produce graduates who have been taught how to learn on their own, who will be able to learn whatever they need to learn in their adult life. The teacher's role will become that of increasing the efficiency with which students educate themselves.

The subject-centered school is no longer adequate. The emphasis today is on developing each child as an individual. No longer are schools merely talking about developing each child to the maximum of his potential; they are now starting to do something about it.

The experiments with new teaching techniques and electronic teaching aids, the emphasis on having students accept more responsibility for learning, the varied attempts to remove the hurdles imposed by grade levels so that each child may progress at his own rate, and the decline of final formal examinations all

attest to the fact that the schools are becoming increasingly child-centered.

The stress on developing *every* child is a result, at least in part, of the requirements of our technological society. Skills are needed today which were not even dreamed of a short time ago, and society needs the special skills of *all* its citizens on a much higher level than ever before.

So far, Canada has been able to attract enough skilled immigrants to keep her economy moving. More and more, however, we shall have to produce our own skilled people. The schools cannot be expected to teach the thousands of different skills required, but they can be expected to develop students who can learn the skills efficiently. Hence the emphasis on individual *learning* rather than group *instruction*.

Teachers in tomorrow's school will be diagnosticians, experts in learning and experts in finding their way on the ever-changing sea of knowledge. They will diagnose the learning requirements of each student and will prescribe the appropriate materials and experiences to provide the proper learning environment for each child. Moreover, no diagnosis or prescription will be considered 'right' unless it leaves the student with a desire to learn more, for this he must do for the rest of his life.

Yes, today's schools are beginning to change. Teaching has always been a challenging profession; it now shows every promise of becoming the most challenging of them all. □

Our **SPECIAL ISSUE** this year will be devoted to the topic 'Mental Health in the Schools.'

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ISOBEL A. CULL

CHILDREN & TEACHERS AS A TEAM

IN THE PRESENT PERIOD of extensive educational change, the end of which is not in sight, the people most affected are children and teachers. They are at one and the same time the victors and the vanquished. Such stirring times as these, although exciting to experience, are not comfortable to live in.

On one hand we catch a glimpse of a great educational breakthrough due to the medium of technology, and on the other we see the unwillingness of governments to spend additional money on the foundations of education as well as on the superstructure. Over-shadowing both of these facts is the terrible urgency laid upon the educational system to equip coming

This article has been adapted from the text of an address given at the BCTF Summer Conference by Mrs. I. A. Cull, chairman of the BCTF Curriculum Directors. The address was received enthusiastically by the delegates and was one of the highlights of the conference.

Mrs. Cull looks to the future and sees a role for teachers which is vastly different from the one they are playing today.

generations to live in the electronic age.

The most palpable reaction to all this has been the recent curriculum reform movement. It has reached into classrooms all over the world and has affected the lives of children, teachers and parents—in fact the whole community. There surely can't be anyone who has not heard of the New Maths for instance. It has even invaded the 'cool' medium of the comic strip, where our friend Charlie Brown finds that explaining primary algebra to his unwilling little sister is every bit as frustrating as managing a baseball team.

The present era of curriculum development can be described as subject- or discipline-centered; i.e., the ends and means of schooling are derived from the nature of man's organized bodies of knowledge. Much of the curriculum has been planned by physicists, chemists, historians and geographers to ensure authenticity of content, and the children are expected to become scholars, junior grade. Professors Sutherland and Deyell of UBC, for example, have written a new history book for the intermediate grades. The

book consists of original source material which the children are to examine as historians would do and draw their own conclusions. New approaches to such methodology as this are important features of the current curriculum movement.

It seems, at a casual glance, that this era of curriculum development has presented few visible problems for the secondary school. Traditionally, secondary teachers have been prepared in a major field and supporting disciplines, so that they have always been able to make a neat transition from their university studies to teaching in the field. However, let us look behind the scenes.

How have teachers really been affected by the recent curriculum development? Behind the apparent serenity exists a turmoil of interecine competition for time, reduction of class size, the best pupils and a host of other advantages, real or imaginary. There have also been Herculean attempts to erect hierarchies of prerequisites. Teachers have felt the pressure upon them to return to university for further education and to take in-service courses. The specialist associations have undergone great expansion in work and expense. The discipline-centered curriculum has moved the arts even farther out into left field, thus contributing to the dehumanization of the school—a result, in part, of the increased number of science courses in the secondary school. There are now two biology courses, for example, an attempt to cope with the 16-fold increase in knowledge in this science since 1900. The *Saturday Review* recently reported that the new scientific knowledge from last year alone filled two hundred fifty million pages. What price content in any discipline? How fleeting is today's truth!

Many Curriculum Decisions Must Be Made

The subject disciplines that have traditional squatters' rights in the curriculum manage to retain their position despite the seemingly reasonable claims of other and more specialized studies. There seems to be no dearth of courses clamoring for inclusion in an already overcrowded curriculum, the two latest being Family Living and Computer Mathematics—both, no doubt, worthy contenders. The BCCTF Curriculum Directors find themselves in a position of trying to square circles and make decisions among conflicting interests.

And what about the child, in whose name all this elaborate edifice is erected? He seems to have become lost somewhere. In some schools he has simply been released into the educational cafeteria without any real freedom to select his diet. He finds that some items he is forced to have, others are only for special customers; some he considers either too bland or too rich, and others are not available because of technical difficulties. Is it any wonder that many choose to boycott the entire menu? Fortunately, however, a real effort is made in other schools to plan an appropriate diet for each child.

The discipline-centered curriculum has posed pro-

blems of another kind for the elementary school. For one thing, there has been continuous pressure to begin the serious study of some disciplines in the elementary school. (A case in point is the attitude represented by the Sutherland-Deyell book previously mentioned. Surely every good idea does not need to be applied to the entire school system!)

Moreover, elementary teachers, usually regarded as generalists, and unable to become instant experts in every field, have been encouraged to choose one or more subject areas in which to specialize. This emphasis on subject orientation encourages the teacher to teach the discipline rather than to teach the child. The resulting school organization, with its platooning to accommodate the available specialists, has increased the distance between the child and the teacher.

And once again, where is the child? According to psychiatrists, teachers and social workers, he is somewhere in the chaos being subjected to harmful pressures which reduce his capacity to learn. He is also being deprived of his childhood and thrust into complexities before he is ready. The child must not be sacrificed to the ambitions of either parents or teachers.

New Interest in General Education Appears

However, if John Goodlad is to be believed, there is a new day dawning. He has said that the discipline-centered curriculum is merging into a new curriculum cycle, characterized by a resurgence of interest in general education. The total curriculum rather than the separate subject fields, will provide the focus for schooling. In the elementary school we have taken one small step in this direction, with our new language arts plan. This constitutes an integrated program rather than four separate studies.

The ends and means of schooling in the total curriculum cycle will depend upon the unification of knowledge into some new organization, perhaps into the four major domains which Lorne Downey suggested in a paper presented at Edmonton two years ago: 'Many attempts have been made to categorize knowledge—but never completely satisfactorily. One rationale, however, posits that human knowledge is divisible into four major domains: the physical . . . , the biological . . . , the social . . . , and the subjective.

'Secondary education, if it is to be general, should expose the learner to learning situations in each of these domains of knowledge.' This is surely going to involve inter-relationships among disciplines. Which ones? How?

Perhaps one approach could be illustrated by the social sciences. It would be possible to devise learning experiences based on the key ideas or fundamental concepts from the studies of history, geography, law, economics, political science, sociology, etc., and give them time in the curriculum without identifying the disciplines.

Another approach could be to identify intellectual

processes which are common to several related disciplines, and teach for them without providing a place in the curriculum for all the disciplines represented in the domain of knowledge. An example of this would be to develop the intellectual processes of observation, classification, inference and prediction by means of a science-mathematics combination.

Both of these approaches can be criticized on the ground that they undermine the present ways of looking at organized knowledge, which is the essence of the current curriculum. Of course they do; that kind of criticism is to be expected. I suggest that the present discipline-centered curriculum movement, like things in Kansas City, has gone about as far as it can go. Already, the influence of conservatism is settling in—the subject specialists are striving to maintain the status quo by building the walls around the specialties higher and stronger. Marshall McLuhan says of specialism that it is achieved by ignoring interrelationships, because such complex awareness slows down the attainment of expertness. He remarks also that to a specialist innovation poses the threat of annihilation. We must, I am convinced, consciously work to bring about a curriculum based on the total environment of the child.

One can see immediately that such a curriculum change as this will have a great impact on our specialist associations. Their purposes will have to be redefined and their numbers and diversity reduced. As they exist now, they represent a fragmentation of the curriculum which, I believe, will not and cannot continue much longer. The mere existence of 22 psa's can in itself throw much sand in the wheels of progress. And it follows that the constitution of the Curriculum Directors will also have to be reviewed.

Furthermore, revision committees will need to be cross-fertilized by the addition of members from related disciplines, so that interrelationships can be recognized and utilized.

I do not wish to intimate that the current curriculum emphasis has brought us nothing but grief, but only to point out that I think we have got all the good possible from it, and that we must not now try to hold back the wave of the future. Inasmuch as I delineated some of the problems that the subject-centered curriculum created, perhaps I should mention some of the gold dust that will be carried forward into the next curriculum cycle.

Because the curriculum has been organized around the fundamental structures of the disciplines, the concepts, key ideas, principles and modes of inquiry have been identified. These remain. There has been an emphasis on inductive teaching and learning and the discovery approach—these will continue to be the built-in goals of teaching. Imaginative and functional school buildings are being designed and built, more and better laboratories are being included in schools, some specialized rooms, such as those especially equipped for social studies and for team-teaching, are being included in some new schools. The concept of smaller classes in sciences, technical and vocational courses has been accepted by government.

More freedom is offered to teachers through the development of such instructional materials as kits for junior laboratory work, films, tapes, records, film strips, workbooks and attractive supplementary books. (The trick is to have these things when you want them where you want them, but at least they have been produced.) There has been spectacular development in the technological field, the latest being teaching by



Mrs. Meena Dandiyah, of the University of Rajasthan, a guest at the BCTF Summer Conference, presented a batik wall hanging to President Harley Robertson as a memento of her visit.

computer. In Palo Alto, California, there is an experiment in progress in which 150 Grade 1 pupils are being instructed in reading and mathematics by a computer located miles away at Stanford University. Most of these developments are attributable to the influence of the current curriculum movement.

I believe the impetus for the next round of curriculum change will come from the elementary school. At this level we haven't whole-heartedly bought the discipline-centered curriculum. We have flirted with it, but it has proved baffling and troublesome. In the meantime, we have come to realize that the elementary school, instead of becoming a small scale model of the secondary school, has a unique role to play in the development of the child's ways of thinking.

The educational imperative of today is to regard each child as an individual and to educate him as such. This would be a humane education. For decades we have glibly talked about the individual differences of children and the ways of catering to them, but at last we have come to the point where we are being forced to 'deliver the goods.'

As Victor Hugo said, nothing is so powerful as an idea whose time has come. This is the very best time in our educational evolution to embark on a program of fitting the curriculum to the individual child. Society demands it, money is available (or should be in a debt-free province), the know-how can be acquired, and technology is ready to come to our assistance.

We Must Use Our Knowledge

What are the implications if we are to treat children as individuals? One implication quite simply expressed is this: we must stop ignoring what we know about children and learning. We know, for instance, that children learn at different rates and to different levels of sophistication, yet we place them in grades—which assumes that the only differences between them have to do with factors like determination to succeed, willingness to work hard, pluck and luck. We know that motivation for permanent learning must be internal, either biologic or cognitive, yet we have devised a system of rewards and punishments in the form of marks, scholarships, promotion and failure which are external—and probably deleterious—to learning. (This system reflects society's materialistic concept of education, and I am sure that most of us are alarmed at the human consequences of children's complete adjustment to this system.) This, by the way, is one of the underlying reasons why the Curriculum Directors are so convinced that the external examination system at the Grade 12 level should be abolished. Surely no one can argue that any examination set by someone other than the teacher directly involved with the children to be examined is anything but an external examination.

We know that most children inhabit a rich sensory world, enlivened by what McLuhan refers to as the hot and cold media and the mosaic quality of television, and yet we confine them to classrooms of 24 by

36 feet wherein are uncomfortable desks neatly marshaled in rows for the convenience of the janitorial staff, and attempt to teach them, for the most part, through the linear, one-idea-at-a-time medium of print.

We know that children flourish best in a loving, non-threatening atmosphere, and yet we test, grade, compare, group, praise the fleet, admonish the lagging, and strive to keep up a mythical standard. And I could go on!

Curriculum Must Foster Intellectual Development

A second implication for teachers is the emergence of a new role. For many years education has been stultified by the superstition that the mind is a storage bin, a vessel to be filled. So firmly has this superstition been held that it has become embedded in our language in such phrases as 'storehouse of the mind,' 'bring back to mind,' 'fill the mind.' We believe now that this is not true. Minds are assumed to be sources of organized energy which find satisfaction in resolving incongruities. If this be so, the curriculum must no longer be based on the autocracy of fact, but must be one which fosters the development of intellectual processes. The teacher then will not be concerned so much with teachings as with arranging the environment so that learning can take place. To do this effectively, she must know her way around in the subject matter that the child is using for his development—the total curriculum. She must have considerable insight and real understanding of and empathy with children. She must be able to know the level of the child's conceptual development and the degree of cognitive power he possesses. She must be prepared to trust the child. She must be able to prescribe the nature and size of the next step.

If she is to fulfil this new role, the teacher must have very different preparation from what is offered now on our university campuses.

If she is to fulfil this new role, the teacher must have, and know how to use, all the products of the new technology.

If she is to fulfil this new role, she can no longer close her classroom door and get on with the job. Teaching will have to become a co-operative enterprise in which the teacher will be assisted by school counsellors, experts in special learning difficulties, psychiatrists, psychometricians, and paraprofessional staff for clerical and supervision work.

Teaching in an elementary school will become much more complex, sophisticated and rewarding. Children and teachers, as a team, will work a great deal harder than they do now, but the result should be a generation of thinking people.

The challenge of the new school dedicated to the development of each child will release tremendous psychic energy upon the secondary school, like a disintegrating rain, and the secondary school will react, I believe, by instituting in its turn a new round of curriculum reform. □

THE EFFECT OF ENTITLEMENT ON THE SIZE OF CLASSES

D. J. GRADY

The address of D. J. Grady, BCTF Director of Economic Welfare, was another highlight of the BCTF Summer Conference. This article is an adaptation of that address.

BRITISH COLUMBIA TEACHERS are united in a common concern over their large class sizes and the high pupil-teacher ratios now in existence in the public schools. Large in itself is still a subjective term—is a large class one of thirty, or forty, or fifty pupils? In opposing large classes, teachers are not opposed to experimentation with large group instruction. It may well be quite feasible for a teacher to teach two classes each of seventy-five pupils, in certain subjects, rather than five classes of thirty pupils. But, teachers are united in their opposition to large groups, unwieldy in terms of 1966 expectations, and recurring for every teaching minute of every day. The basic organization for elementary schools in this province is still a teacher in charge of a large number of pupils for all of the teaching time.

Historical Background

The early development of the public school in Canada was associated with the township unit. Schools were small, facilities sparse, enrollments unpredictable. Teachers were frequently old soldiers with an ability to secure order and with very few other qualifications. Some urban centers experimented with monitorial schools in the tradition of Lancaster and Bell. Teaching was by rote, monitors served as platoon leaders. Order and regimentation were characteristic. Enrollments were very large, but attendance bore little relationship to enrollment.

Large enrollments were common in early British Columbia schools. In 1905, Division 6 of the Fernie school had an enrollment of 106 pupils but an average attendance was 55 pupils.¹ It appears that teacher time was spent in praying for epidemics or inclement weather. These prayers seem to have been frequently answered. Inspections were infrequent and perfunctory—a bare minimum of literacy was all that could be expected.

Changing Expectations

The school of today has a much more flexible and broader curriculum. There is stronger competition from competing media and schools place much more emphasis on teaching method. The terms—continuous promotion, i.e., SRA cards, team teaching, educational tv—are all household terms familiar to the general public. The public schools are committed to the strengthening of the inner resources of the people and far greater expectations are placed on the teachers. The teacher must now display—more and more skill—on a broader basis of content—to a wider mass of all pupils. Individual variances are to be recognized, developed and nurtured to ensure that the public school conforms to the North American credo of the

worth and right of all individuals. There is to be no favored treatment within the school system for any segment of the school population.

The percentage of regular attendance is now over 90%. Parents recognize the importance of education as they are bombarded with information from the Department of Labor and other sources encouraging students to stay in school. The school is under constant surveillance. The pressures of society are brought to bear on teachers and on children. The second report of the Economic Council of Canada emphasized the importance of education by recommending attention to 'vigorous efforts to improve the quality of educational methods.'

Public education on the basis of individual assignments, never common in Canada, kept pupil-teacher ratios low. The monitorial method increased pupil-teacher ratios. Oral class teaching established an intermediate ratio which was perhaps acceptable at a higher level when *subject matter* only was emphasized (as in the university today). Certainly the pupil-teacher ratio must be relatively low when the teacher is expected to give attention to all aspects of the *development of individual children*.

"Twenty-five to fifty pupils under a single teacher were accounted too many by the Superintendent in British Columbia—in 1860."²

History indicates that in general British Columbia never did have a generous pupil-teacher ratio. As a frontier society and right through to the present day the schools of British Columbia have had high pupil-teacher ratios and large classes relative to those in other provinces, states and countries.

Class Sizes and Pupil-Teacher Ratios

A. Secondary

Obviously class sizes in different systems will vary with the system's financial backing, its educational philosophy, and in large measure with its traditions and expectations.

In the United Kingdom, Education Minister Prentice has suggested that the public (private) schools in England are superior to government-maintained schools. He cites the fact that there were 20 pupils per teacher in state Secondary Modern schools, 17.9 pupils per teacher in state Grammar schools and only 11.5 pupils per teacher in independent schools.³ In Scotland, a country renowned for quality education and for a national aversion for wasting money, it is considered to be a wise investment to have a pupil-teacher ratio in the secondary schools of Edinburgh of 17:1 and in Glasgow of 16.9:1.⁴

In Canada, the Canadian Education Association reports pupil-teacher ratios at the secondary school level to be a national average of 19.6:1, with an urban low of 16:1 in Carignan, Lachine and St. Laurent in Quebec and an urban high of 26.2:1 in the separate schools of Windsor. Of the 70 urban systems surveyed, all 13 British Columbia centers had pupil-

teacher ratios at the secondary school level above the mean for the 70 systems surveyed.

B. Elementary

At the elementary school level it is even more obvious that the schools of British Columbia compare very unfavorably, in terms of class size, with schools in other jurisdictions. In Alberta 8,361 teachers in 499 elementary schools teach 245,035 pupils. In British Columbia 7,863 teachers in 979 elementary schools teach 268,371 pupils.⁵ British Columbia with 23,000 more pupils employed 500 fewer teachers.

The Canadian Education Association's study previously cited reveals that the 70 urban centers had a mean elementary pupil-teacher ratio of 28.4 pupils per teacher. In British Columbia the provincial mean was 30.1 pupils per teacher. Only an occasional Nova Scotia center and a few separate school boards could compare with the high ratios found in such centers as Victoria, Burnaby and Surrey. These pupil-teacher ratios have their reflection in larger classes in the schools of British Columbia.

Percentage of Elementary Classes with Over 35 Pupils

U.S.A. (urban centers of over 3,000 population)	9.9% ⁷
Canada	25.1% ⁸
British Columbia	40.6% ⁹

In 1960-61 there were 588 classes of over 40 pupils in the elementary school system in British Columbia. In 1962-63 the number was 557.¹⁰ In 1966 the number was 509.¹¹

The Entitlement Provision in the Public School Act

Responsibility for education is vested at the provincial government level. British Columbia has conformed to the North American tradition of local school boards with delegation of power from the provincial government to these local school boards. In all provinces and states there is some formula for the provision of moneys to school boards, some method of determining the grants that will be paid to the school boards from the provincial or state authorities.¹² In our view the entitlement formula is an instrument of the provincial legislature and its prime function is to dispense provincial moneys to education. It does not provide a blueprint for the staffing of all schools. As Frederickson said, however, the formula in British Columbia has baleful connotations. It has assumed the mantle of an enforced mediocrity through the disposition of approved grants.

No school board in this province uses exactly the figures and form of the salary grant scale to pay its teachers. Likewise, no school board uses the formula for administrative allowances provided by the provincial government to pay its principals or secretary-treasurer. Why then should the approved establishment of teachers for grant purposes be allowed to transfix educational decision-making at the local level?

Thirty districts now hire two or more elementary teachers over entitlement. However, it is a sad reflection on the local school boards that most boards will have policy on reporting sick, on turning off lights, on buying chalk, but they elect to remain silent and subservient on major educational issues such as class size. One feature of the federal system of allocated and overlapping responsibilities is that it is far too easy for authorities to pass the responsibility over to another party. The responsibility for engaging enough teachers should rest firmly in the hands of the locally elected school board.

That the entitlement formula in the Public Schools Act is patchwork legislation is attested to by the gross anomalies which have crept in to the legislation over the years.¹³ For example:

a) An elementary school with almost 500 pupils is permitted to employ 13 teachers. Once over the magical 500 barrier, the school is entitled to 14 teachers plus one supervising principal plus a librarian. Why should there be this variation from 13 to 16 teachers for the addition of a few pupils?

b) Teachers of home economics and industrial education will be approved for every 250 pupils enrolled in those disciplines. Is it possible to find at this time *one* school in this province where the teacher of home economics and industrial education is actually teaching 250 pupils?

c) The appointment of specialist teachers will be approved but the sum total of specialist and other teachers must not create an overall ratio exceeding 1:24 in schools of over 750 pupils. Is it not entirely reasonable to expect that, with concentration of vocational facilities in a few schools, there may indeed be many schools which should have lower pupil-teacher ratios than others in order to offer the program for which the schools were physically equipped?

d) Once a school enrolls over 750 pupils, the overall ratio must change from 1 : 23 to 1 : 24. Imagine the outlandish predicament of the school of 749 pupils receiving additional pupils to exceed the 750 hurdle and at the same time being compelled to increase the pupil-teacher ratio in consequence of the addition of students.

Difficulties in Securing Rapid Changes in Class Sizes and Pupil-Teacher Ratios

a) We should not overstate the case to make a blanket castigation of the public schools. Department of Education officials, school trustees and teachers, have pride in the public school system and are willing to defend their efforts tenaciously. However, if one is too close to the scene and too prone to remember things as they once were, one can become blind to the faults of the system and to the achievements of others in other jurisdictions. The demands for changes are not so much a revolution as a speeding up of progress.

b) The shortage of teachers is frequently quoted as the reason for the large sizes of classes. It is our con-

tention that the conditions of work in teaching are such that many potential teachers are forced out of the profession into less taxing or more rewarding vocations. We have not, in our opinion, conducted any intensive recruiting campaign for teachers from elsewhere. If we were sufficiently interested in recruiting teachers, we would recognize, for salary purposes, teaching experience gained elsewhere. We would provide pension plans comparable to others in existence for teachers in Canada at the present time and we would actively interview and recruit teachers in their own province and country. Twenty-six percent of our present teaching force was certificated originally outside this province. Much of British Columbia's present population also came in from outside the province. For this reason we do not consider that it would be unfair to recruit teachers from other areas.

c) Lack of physical facilities frequently compels large classes. School boards are permitted to build with a three-year projection of anticipated enrollment. These projections are invariably too conservative. The schools are overcrowded as soon as the doors are open. The same lack of realism in cost estimates results in schools which have cut out of them such desirable features as libraries. We suggest that a government with the imagination to build the Peace and the Columbia Dams and to project a 55-story office building in Vancouver for a non-existent bank could surely plan and authorize a program to supply the necessary schools for the children of British Columbia.

d) Are smaller classes a wise investment of money in education? The Chant Commission recommended class sizes at the elementary school level of 35 pupils. The provincial government has accepted this proposal but has not achieved the objective as yet.

We have ample proof from current practice in the United Kingdom and the United States, in Scotland and in Eastern Canada and in Alberta that pupil-teacher ratios much lower than those in existence in British Columbia are to be desired.

Recent research indicates that there are considerable benefits accruing to children from smaller classes:

Blake selected 250 class size studies and of these chose 85 for scrutiny. Twenty-two of these selected studies best filled the criteria for thoroughness. Of these 22 studies, 16 favored small classes, 3 favored large classes, 3 were inconclusive.¹⁴

Newell concluded that smaller classes lead to more inventiveness and a greater adaptability in the teaching situation. He pointed out that good teachers were needed in the small class situation but that a good teacher with a small class was able to produce better results than the good teacher with the large class.¹⁵

Frymier was able to indicate that reading improved in the first grade in small classes.¹⁶

McKenna and Pugh emphasized the need for training of teachers in small class instruction.¹⁷ Most of our teachers at the present time have received training

and experience in the large class situation. We suggest that with the advent of smaller classes teachers will probably need some retraining in the technique of smaller group instruction.

Reynolds indicated in his studies that the small class provided much more time for individual instruction.¹⁸

A comprehensive study in the schools of San Diego involving 36 classes, 17 principals and consultants was able to conclude that smaller classes had definite advantages in the teaching of arithmetic concepts and word discrimination and reading.¹⁹

Clarke, in a study of the urban systems in Alberta, was able to show that the system with the lower class size also had fewer failures and more honors among its students, and in general the students from the city with smaller classes were able to achieve higher than the students from the system with the larger classes.²⁰

Most of the studies of class sizes indicate that teacher morale is much improved in the smaller class situation. As a result of its study the San Diego School Board will continue to reduce the sizes of its classes.

Resolving the Problem

One's natural tendency to seek peace rapidly disappears with the contemplation of over 20,000 British Columbia elementary school pupils of wide ranges of ability in classes of over 40 pupils. How many school beginners this year will be launched on a school career plagued with frustration and fear because they could not command enough of the teacher's time? How many teachers will be forced to write failing comments on the *child's* report when those failing comments should be assigned to the *system* which prevents the teacher from knowing and teaching the individual child?

We must continue to search out up-to-date information on our own system and the public school systems elsewhere. We must renew our efforts to persuade parents and school trustees of the importance of the class size issue. Government in general and MLA's in particular should be informed of the teachers' stand in this matter. Persuasion has been and still must continue to be our chief resort.

However, in my opinion, all pleas for a reduction in pupil-teacher ratios will fall on deaf ears until teachers take a stand. The teachers' position must be reasonable and defensible. Time must be allowed to secure additional teachers and to build more classrooms. We cannot, by persuasion or coercion, secure classes of 25 pupils by 1967. We can, however, take the first step by eliminating the grossly intolerable situations now in existence.

Is it not reasonable to suggest that: 'As of September 1967 no teacher in British Columbia elementary schools will teach a regular class enrolling over 41 pupils'?

The actual figure may be modified when current class size data is collected. The initial figure may be

40, 41 or 42, or some other number. The maximum figure should also be progressively reduced each year. Other defensible limits for grades and subject areas can eventually be defined and enforced. To many teachers the issue may be remote; to others the stand may be too dogmatic; to some it will be too moderate. Who will deny that it is a step in the right direction? If this procedure is adopted, there must be available sufficient financial and legal assistance to protect the right of the teachers immediately concerned.

Teachers do not lightheartedly seek conflict with school boards or with government. Indeed, in our efforts, we hope for the co-operation and support of the public and of the employing authorities. School boards will have a real opportunity to take a step forward to quality education.

Undoubtedly, the pious defenders of the 'status quo' (the mess we are in) will accuse teachers of being unprofessional in their attitude. Without engaging in specious arguments in semantics, it is very likely that the teacher is more unprofessional when he continues to accept an impossible task without making a stand. Teachers can get by, even with large classes, but we are not permitting learning and teaching; we are continuing mass exposure to instruction — the children are the losers! □

¹Frederickson, C. J., *A Brief Study of the History and Implications of Entitlement*, B.C. Educational Research Council, p. 3.

²Phillips, *The Development of Education in Canada*, Gage, Toronto, 1957, p. 466.

³*Saturday Review*, August 21, 1965.

⁴*Scottish Education Journal*, July 15, 1966, p. 705.

⁵*Pupil-Teacher Ratios in Canada*, Canadian Education Association, Toronto, July, 1965.

⁶*Survey of Elementary and Secondary Education 1962-63*, Dominion Bureau of Statistics, Ottawa, April 1966, p. 29.

⁷*Class Size in Elementary School*, National Education Association, Washington, 1966, p. 108 Table 2.

⁸*Survey of Elementary and Secondary Education*, op.cit., p. 18.

⁹*The Elementary Schools of British Columbia*, Informational Report #1, B.C. Teachers' Federation, Vancouver, June 1966, p. 17.

¹⁰*Survey of Elementary and Secondary Education*, op.cit., p. 29.

¹¹*The Elementary Schools of British Columbia*, op.cit., p. 17.

¹²Frederickson, C. J., op.cit., p. 1.

¹³*Manual of the School Law and Rules of the Council of Public Instruction*, Queen's Printer, Victoria, 1964, Sect. 181, Rules 16.05, 16.06.

¹⁴Blake, Howard E., *A Summary of Selected Studies in Elementary and Secondary Schools*, Doctoral thesis, New York, Teachers' College, Columbia University, 1954.

¹⁵Newell, Clarence A., *Class Size and Adaptability*, New York, Bureau of Publications, Teachers' College, Columbia University, 1943.

¹⁶Frymier, Jack R., 'The Effect of Class Size upon Reading Achievement in First Grade,' *The Reading Teacher*, International Reading Association, Newark, Delaware, November 1964, pp. 90-93.

¹⁷McKenna, Bernard H. and Pugh, James B., *Performance of Pupils and Teachers in Small Classes Compared to Large*, New York, IAR Research Bulletin, Vol. 4, No. 2, Teachers' College, Columbia University, February 1964.

¹⁸Reynolds, Robert W., 'Recommendations on Class and School Size for Elementary Schools,' *California Education*, Vol. 11, No. 4 (December 1964), pp. 22-24.

¹⁹Aftreth, Orville B., (ed.), *The Class Size Experiment*, Report to the Board of Education, San Diego City Schools, April 13, 1965.

²⁰Clarke, S. C. T., 'Western Provinces,' in *The Canadian College of Teachers*, Vol. 6, 1963, pp. 76-80.

COPYRIGHT

and the right to copy

*You may be breaking the law every day
without realizing it. Such teaching aids as
spirit duplicators and overhead projectors place
teachers in a particularly vulnerable position.*

ROY C. SHARP, Q.C.

STATED BRIEFLY, COPYRIGHT IS the sole right of the author or proprietor of the copyright to make copies of a published work or the right to make the work public and still retain the beneficial interest therein. It is the mode of expression, the actual words used, that copyright protects.

Copyright law plays a part in so many fields of activity in a modern literate society that it ought to be as familiar to the man in the street as the Highway Traffic Act. It rests on the theory that the results of the original labor of an author should, on grounds of both justice and public policy, be protected against piracy. Anthony Trollope succinctly underlined the importance of copyright as an individual privilege and as a national asset when he said in his autobiography, 'Take away from English authors their copyrights and you would very soon take away from England her authors.'

Under Canadian law, copyright is a property right, a form of intellectual property, and like any other form of property it can be bought, sold, leased, or divided. Unlike a patent, copyright affords no protection for the ideas expressed. These are free to be used by anyone.

We are here interested in the copying of literary works as distinct from artistic, dramatic, and musical works. What is meant by a literary work? Section 2 (n) of the Copyright Act states that 'literary work' includes maps, charts, plans, tables, and compilations. Clearly, literary copyright is not confined to so-called

literary masterpieces. For a work to be the proper subject of copyright as a literary work it is necessary that there be some evidence that its composition required the taking of time, the expenditure of labor, and the exercise of skill and judgment in its composition and arrangement. The following have been held to be literary works in which copyright may subsist: a directory, a trade advertisement, a dictionary, a book of scientific questions and answers, a list of Stock Exchange prices, an engineer's report, a list of railway stations, and a list of foxhounds and hunting dogs.

The Right to Copy

The right of individuals to make copies (including photocopies and microphotocopies) of copyright literary works is not widely enough understood. Private persons have for the most part a wider right to copy such material than is sometimes supposed; on the other hand, usually through ignorance of the law, the abuse of this right tends to be widespread—particularly in schools, universities, and libraries.

Those wishing to copy copyright material must bear in mind two points: (a) unless a substantial part of a work is copied there is no infringement; (b) the copying of even a substantial part may be permissible as fair dealing with the work for the purposes of private study, research, criticism, review, or newspaper summary. It is only when the Court has determined that a substantial part has been taken that any question of 'fair dealing' arises.

Substantial Part

There can be no infringement of copyright in a work, therefore, unless a 'substantial part' of it is taken. This point is not always fully understood, although it is of

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prime importance. The right to quote is well recognized in law. And although the Copyright Act does not define what a 'substantial part' is, the Courts have laid down certain rules which help to define this term.

To ascertain what is a 'substantial part' both the original and the alleged infringing work must be examined, as must the economic effect of the copying. A small part of the original work may form a large and substantial part of the second work and in such a case there may well be infringement. All the circumstances must be examined, including the quality as well as the quantity of what is taken, for quality may be more important than quantity. Thus where an important portion containing, for example, a summary of the work is copied it would constitute infringement even though it might form but a small part of the original work.

Illustrations from copyright works, including graphs, technical drawings and other illustrations, are generally regarded as separate works in themselves and their reproduction would be regarded as an infringement. An article published in a periodical is also usually regarded as a separate work and its reproduction or any substantial part thereof would also be considered an infringement.

Fair Dealing for the Purposes of Private Study and Research

Even though a substantial part of the work is copied, if it is dealt with fairly for the purposes of private study or research, there is no infringement. However, such fair dealing must be exercised by the individual for himself and not by any one person on behalf of another. Thus someone could not by photo-offset printing make pirated copies of an expensive medical textbook and claim these copies were not infringing copies because they were sold only to medical students for the purposes of private study by the ultimate purchaser. Nor would it make any difference if a school or university subsidized the printing and publishing of the pirated edition and distributed copies to students free of charge. It can easily be seen that if this were permissible a publisher would probably not have produced the book in the first place, in view of the very considerable investment required of him for typesetting, the reproduction of expensive diagrams and illustrations and manufacture. Indeed, the cost alone of creating a market for the book would become an investment which he would have no assurance of being able to recover. Similarly, the author himself would probably not have written the book if he had no assurance that the law would protect his rights to royalties as a payment for his labors.

Copying in Libraries

The making of only one copy is sufficient to constitute infringement. Libraries have no special privileges in this connection under Canadian law. Thus when a library makes a single copy of a copyright work or a substantial part thereof for a patron such an act is

sufficient to constitute an infringement of copyright. The practice of stamping on the back of such a copy a notice that it is made for the purposes of private study or research does not relieve the library from responsibility.

Thus the uses to which photocopying machines in libraries are sometimes put can clearly be a contravention of the law, albeit without wrongful intent being present. This can be so even where the machines are left to be operated by the users themselves without the intervention of a librarian. Libraries cannot divorce themselves from responsibility for such machines operated on their premises.

Fair Dealing for the Purpose of Criticism

A substantial part of a work may also be copied with impunity if it is dealt with fairly for the purpose of criticism. 'So long as the amount which is taken from a previous work is reasonable, and the use to which it is put is for purposes of criticism, using that word in its broadest sense as meaning a critical use of the material for the promotion of the art or science to which it pertains, there will be no infringement.' (Fox, Canadian Copyright Law, p. 430.) However, if any competition is likely to exist between the two works this fact would also be taken into consideration in determining whether or not the dealing with the particular work was fair.

Copying in the Schools

What about a teacher copying copyright material on the chalk board? Is this an infringement of copyright? For the most part such copying would consist of short extracts only and not of a substantial part of the work. But even where a substantial part is copied, as for example of a poem, so long as the amount is reasonable and the use to which it is put is for purposes of criticism, again using that word in its broadest sense as meaning a critical use of the material for the promotion of the art or science to which it pertains, there would be no infringement.

Where, however, a teacher copies the exercises from a textbook or a workbook designed for use in schools on the chalk board, or one exercise each week for example over a period of time, such copying is clearly in competition with the original work and could not be construed as fair dealing with the work for the purposes of criticism. The practice of buying one copy of a text or workbook and reproducing exercises and passages from it by means of liquid duplicators or other reproduction devices clearly does not fall within the exception of fair dealing and is an infringement of copyright.

It is not unusual for permission to be granted to make copies of extracts from copyright works upon payment of a modest fee. Undoubtedly there are occasions when the copying of certain extracts from a work would not pose any economic threat to its viability and in such circumstances it would be unusual for

a publisher to make any charge for permission to make such copies. It must always be borne in mind, however, that under Canadian law such copying may not be made without permission.

Illustrations

Devices for throwing the image of graphs, charts, technical drawings and other kinds of illustrated matter on a screen are finding increased use as visual aids to teaching in the schools. These devices depend upon the making of photo-positives, slides, or some other transparent copy of the illustrations. Such illustrations are for the most part regarded as complete copyright works in themselves (i.e., as artistic rather than literary copyright works) so that the copying of such works is not just the copying of an 'extract' but is in fact a copy of a work or substantial part thereof and hence is a breach of copyright, unless permission has first been obtained. Many transparencies are produced commercially for the purpose of projection by their purchasers, so that with the purchase of these no breach of copyright occurs.

These devices are not to be confused with the more rudimentary equipment employed a few years ago in a less technological age. The epidiascope was commonly used in schools and lecture halls to cast upon a screen the image of any page of a book, including illustrations. Such a projection did not involve physical reproduction of the work as the modern devices do and so was not an instrument capable of infringing copyright.

Remedies

An action for damages and for an injunction or restraining order may be brought in the Courts against a party who infringes copyright. A person who prints an infringing work will be liable even though he acts only as an agent, and an importer of an infringing work is liable if he knowingly imports any infringing work. Innocent intention affords no defence, and ignorance of the existence of copyright is no excuse for infringement. Copyright being a proprietary right, it does not

avail the defendant to plead motive or intent. The question of intent will, however, have a bearing on the question of whether the grant of an injunction is the only remedy.

If any person knowingly (a) makes for sale or hire any infringing copy of a work in which copyright subsists; or (b) sells or lets for hire or by way of trade exposes or offers for sale or hire, any infringing copy of any such work; or (c) distributes infringing copies of any such work either for the purpose of trade or to such an extent as to affect prejudicially the owner of the copyright; or (d) by way of trade exhibits in public any infringing copy of any such work; or (e) imports for sale or hire into Canada any infringing copy of any such work, he shall be guilty of an offence and liable on summary conviction to a fine not exceeding \$10 for every copy dealt with in contravention of these provisions, but not exceeding \$200 in respect of the same transaction. In the case of a second or subsequent offence such person shall be liable to such fine or to imprisonment with or without hard labor, for a term not exceeding two months. The word 'knowingly' means merely that which is done with knowledge of the existence of copyright.

Conclusion

Authors, publishers, librarians, and teachers are engaged in various aspects of a common process, the creation and dissemination of ideas. They thus have a common interest in and concern for copyright.

Copyright is essential to the development and preservation of a literate society, because it assures the continuous flow of fresh ideas. Modern copying machines can facilitate the dissemination of ideas, but when they are misused they threaten to dry up the source. Indiscriminate copying can so reduce sales prospects that numerous important publications would become uneconomic to produce. Fortunately, breaches of copyright law by teachers and librarians have, with but a few exceptions, resulted more often from misunderstanding of copyright than from a wilful intention to evade or breach the law. □

THE SPECIALIST AGE —OR IS IT?

It is generally believed the twentieth century and particularly the last two decades, is the age of the specialist. More and more emphasis has been laid by high schools, training schools, universities—and not least by businessmen—on mastering not one skill, but one aspect of one skill. A reassessment now appears to be under way, however. Wilfrid N. Hall, president of Domtar Ltd., put it this way to the company's annual meeting earlier this year: 'New machines and different methods are altering skill requirements. The level of skill demanded is higher, the importance of technical knowledge is increasing. Some trades may disappear, others which now fall into a semi-skilled category will end up as fully skilled. A shift is indicated towards a possession of a larger range of skills rather than towards more jobs each with a single narrow skill. The technical worker of this industrial era must possess initiative, mental alertness and flexibility and a greater scope of knowledge. What is required is not an increasingly narrow specialization but a wider and wider range of abilities.'

—From Canadian Business, July 1966.

LINGUISTICS AGAIN

M. H. SCARGILL and P. G. PENNER

THIS YEAR GRADE 11 STUDENTS in British Columbia will have a new text, *Looking at Language*. As editors of the book, we feel that we owe teachers who will use it an explanation of our thinking, of our position, of the rationale behind the book.

As the subtitle indicates, *Looking at Language* is an introduction to linguistics: nothing more and nothing less. It is not a panacea for all the ills of the language lesson, but simply an attempt to engage students in a balanced and accurate study of the subject that touches all of man's activities.

Looking at Language is based on four fundamental assumptions:

1. Language, as man's greatest achievement, is worthy of serious study for its own sake.

2. It seems likely that the more a student knows about his own language, every aspect of it, from its history to its present dialects, the better equipped he will be to appreciate its use and its potentialities in his own spoken and written work as well as in the work of others.

3. Young students are far more sophisticated linguistically than some adults have been prepared to admit. They take a delight in using language in many and varied ways; and they show an ability to invent languages, to coin new words, to make puns; all this argues a surprising amount of knowledge about language and skill in using it.

4. Students at the secondary school level, and earlier, are now faced with complex and deep challenges

in subjects like mathematics and physics, and there is every reason to suppose that they are capable of meeting similar challenges in the field of language and of enjoying them.

5. Understanding of the world into which our students are moving will depend to a large extent upon intelligent appreciation of the languages of mankind.

A question that naturally arises is 'What is linguistics?' Is it the study of grammar, and, more especially, the 'new grammar,' the 'newer grammar,' and even the 'newest grammar'; or is it the study of language in the comprehensive sense: that is, the study of sounds, of dialects, of words, their history, their changes in meaning, as well as the study of the system we use to construct phrases and sentences? It will be obvious to the readers of *Looking at Language* that this book is based on the latter, wider view.

It will also be clear to readers that grammar, if by grammar is meant the analysis of the structures of a language, is only one aspect of linguistics, and that other aspects, equally valid, are in themselves worthy of study. These other aspects of linguistics not only provide students with information so necessary for the development of accurate views of language, but give the teacher of language the new material he needs to make his job stimulating and rewarding.

Therefore, to consider linguistics only as grammar,

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as the only way of examining a language, is a restricting use of the term. Unfortunately, to think of linguistics as grammar, and grammar as linguistics has caused some enthusiasts to mistake one promising new way of studying language as 'the only way.' Although the pitting of one theory of grammar against another in scholarly debate is legitimate and, in fact, necessary, the replacing of one grammatical orthodoxy by another, however new, however promising, is not. Ideas about grammar are always changing and extravagant claims for one theory or another may tempt some teachers to accept blindly one experimental theory in its early stages as a fully developed and tested theory with proven applications; such claims lead other teachers to reject the importance of this part of linguistics altogether. This kind of situation can only throw this whole subject of language study into disrepute.

Linguistics Is Many Things

Linguistics is not grammar only, and certainly not one and only one theory of grammatical description. Furthermore, no serious scholar would claim that even the whole field of linguistics is a replacement for the careful study of literature, and for numerous and varied activities in speaking and writing. Linguistics is not 'English'; it is not 'modern languages.' But linguistics, the study of language, is many things, some of which are of interest to the teacher, some of which are not; and teachers must be aware of this. Linguistics can, if properly used, provide a sound understanding for the intelligent teaching of English and of modern languages—even though this is not its primary purpose.

Our first assumption, that language is man's greatest achievement, is not merely paying lip service to an idea. Learning about language and languages, especially one's own, is a rewarding pursuit in itself. For instance, the study of the history of his own and of other languages is fascinating to the student and helps him to understand the changing styles, grammars, pronunciation, and vocabulary of those authors whose writings he studies chronologically. Then too, dialect geography, even at the most elementary level, is an interesting and useful sociological tool, just as is the study of the differences between cultures as expressed in language forms. These are but three areas in the whole field of linguistics. There are others, as *Looking at Language* shows; and knowledge of these can be applied to any language or literature lesson with success, provided their limitations are realized.

It is our hope, for example, that the chapter on grammar in *Looking at Language* could be so used as to encourage the student to write his own grammar of English, no matter how elementary, based on his own experience in speaking and writing and reading. Together with this grammar might go a dictionary project. These two areas of study will immediately and inevitably lead to the study of other areas, all of them represented in *Looking at Language*. Will the gram-

mar be historical or will it be confined to Modern English? Will it be a grammar of the spoken language or of the written language? Will it contain 'rules for producing sentences' or will it simply be a handbook showing sentences that have already been produced, a reference work listing 'acceptable constructions' drawn from reputable speakers and writers? At once, the student is concerned with levels of language, of differences in dialect, of differences that result from the changing history of the language.

Similarly, with the writing of a small dictionary, questions arise, are bound to arise, about what goes into a dictionary and on what authority. Are pronunciations to be given? If so, then the student must go to the chapter on phonetics. Is the dictionary to record etymologies? Then he must know the history of English. Will the dictionary offer usage labels—slang, dialect, obsolete, sports? At once the student is involved in further chapters of *Looking at Language*. He is also working on his own, for only he can get the information on which to base his decisions.

We have found that the study of vocabulary is one of the best ways to integrate this study of language and history. A first-rate introduction to history can be based on the investigation of the origin of fifty or sixty words. Where does *law* come from, or *parliament* or *fashion* or *blitz*? What is happening to modern society that might account for the tremendous growth in scientific and technical terminology? Why are there so many words from so many different peoples and cultures in English? What new words have entered the English language in Canada? From what sources?

Language and Literature Are Integrated

Literature is language used in a special way, in grammatical structures, in patterns of sound, in vocabulary. At least two chapters in *Looking at Language* attempt to integrate the 'language' with the 'literature' lessons. Thus, our book directs the student to his literature texts and invites him to apply principles of linguistic analysis to his reading of literature in order to enrich his response.

Some of this may seem at first pretty 'heavy going,' 'too rich a mixture' for young students. We do not believe that it is. Language is men and women in action; it is the human race alive. The study of language cannot help leading to the study of all other areas of man's endeavor. We think that it should. The 'language period' is something better than the endless repetition of rules for this and rules for that.

Linguistics is more than grammar but less than some of its proponents have claimed. It is a serious discipline, many-sided and yet limited; properly used, it has a great deal to offer both teacher and student. In *Looking at Language* we have tried to show some ways in which language is studied and to relate these to the special interests and problems of the teacher and of the student of English. □

MY SCHOOL BOARD OFFERED to stake me to the BCTF summer workshop on Education and the New Technology. I did not think the workshop would be of much help in my teaching but, with that kind of support, I was prepared to work for the month of July at Eric Hamber School in Vancouver.

It was to be a four-week workshop at which we would have plenty of opportunity to use the new machinery in teaching. Our first week would introduce us to computers, program learning machines, TV, film loops, new films—the sort of things that salesmen constantly shove at us traditionalists to improve our teaching.

We spent a week listening to lectures about new kinds of schools and new kinds of teaching, trying out machines and re-learning group dynamics. Some of the lectures proved that machines do a better job. Some of the machines broke down at crucial moments, and the group dynamics we had all had some time before.

We were polite. We asked appropriate questions that often got in the way of the lectures. For the life of many of us, we could not see that we would gain \$100 worth of information out of this workshop.

Then the miracle! Three hundred fifty Grade 5 to 8 students arrived. We were in business. We teachers were divided into four groups of ten, one adviser, two literary appreciation teachers, two social studies teachers, two math teachers, and two or three science teachers. Our group was given 90 students in a large double classroom that would divide into five seminar rooms with sliding curtains. We were told that we could not teach regular program material, we were not to teach in the usual ways, and we were to work together as a team.

The science teachers found they couldn't use the laboratories because the school was being remodeled. They must create a new scientific environment. We literature appreciation people discovered there weren't enough books in sets, and we would therefore have to create new approaches. We had three weeks to create. Our students were hungry for experimentation. We had to learn the names of our 90 students; we had to devise ways of putting them into large groups for information-giving lectures, into small groups for seminars and into single unit spaces for independent study; we must not confuse them. And it was the confusion we created that almost proved our undoing. Had it not been for the adaptability of children, we would have given up the great experiment.

We had to discover what we should teach them. Was content important? We had to discover what rules we needed for our school. Was dress important?

We decided that neither was important. Teachers discovered that all their collected knowledge was of little value if the students were not ready to receive it. They discovered, too, that jeans, cut-offs and sports shirts were acceptable dress for students and teachers alike, without damage to the psyche.

Creative Teaching and the New Technology

COLIN BROWN

We decided that the Glen Heather's four 'process goals' were worth a try. We would teach tool skills (reading, spelling), problem-solving, self-instruction and self-evaluation. We didn't understand what that all meant but we decided to try. 'Be creative' was our rallying call. Create new approaches to the process goals.

I took 45 pupils and chose to teach poetry—a challenge at any time. My pupils groaned. I told them they did not have to memorize it or write it unless they so desired. They sighed with relief. I was beginning to break with traditions.

Together we discovered the six major conflicts of man (survival, art, society, environment, philosophy or religion, economics) and then, in small groups and in independent study, searched for poems that had meaning in terms of the conflicts. In a fit of creative effort I invented, on the spot, a new simplified denotation system which speeded up the process of reporting to the seminar group or to the whole 'class.'

I was satisfied, after a week and a half, that team learning can be effective, that seminar discussions were valuable, that overhead projectors can be used to discuss poetry and that I can be creative under the most unusual circumstances.

The author teaches at West Vancouver Secondary School.

I was no longer a traditional teacher; my students were no longer traditional students. We worked together without bias. They began to accept the confusion of re-forming into seminars and large groups. I'm not sure what we did for reading and spelling (those tool skills) because we had so little time to work as individuals, but we certainly developed interdependence of action.

In another group some teachers were disturbed by what they called 'negative leadership' by a few in the seminar discussions. I noticed that the rest of the group tended to take care of negative leadership by ganging up on him. We had more difficulty with the hard worker who always had all the information at his finger tips. It was difficult to learn to give each person a chance, especially when some would rather sit back and let others do the work. We all have this problem to solve.

At the half-way point we evaluated by asking students and their parents to fill out a questionnaire. Almost all the complaints by students and parents were that students were not getting enough teacher help. Typical of the complaining comments was this: 'In my son's group, one or two of the older children did all the talking and wouldn't give the others a chance. The teacher was always busy with other groups and didn't come around enough to help him. I complained to the principal of the summer school but nothing was done about it. I know you are doing your best to make the work interesting, but the younger ones need more of your help.'

Most of the comments, however, were very encouraging. Both parents and students liked the approach—the sweeping, interest-and-idea-seeking method. Despite the complaints, we found that most of the students were progressing very well in the seminar system. Evaluation of their progress was difficult, of course, because of the great variety of levels at which the students operated.

Half-way through the program I switched to drama as a medium but found that the books available lacked variety. Be creative! I brought my cheap little 8mm movie camera from home and we set up an experimental seminar on making movies. We showed the rest of the class the movie we had made. They sat transfixed. We assigned them the work of interpreting the silent film. We had the other seminars make their own movies and in one great rush we made nine of them. This kind of creativity stimulated students and adults alike.

Again, evaluation was difficult. We did see students totally absorbed. They solved problems; they instructed themselves; they evaluated their own efforts and improved upon them. The weakness here was the lack of tool skills, but if conversation be the food of learning, eat up.

In science, children explored film loops and slides by themselves and made and developed photographs.



Closed circuit television, computers and many other tools were used during the month-long workshop on Educational Technology at Vancouver's Eric Hamber Secondary School in July.

In mathematics, students worked with computers, programmed learning and all the other paraphernalia at our disposal. In social studies, I heard a tape recording advertising Expo 67 that would beat anything you've heard or seen advertised on radio or tv. It was done by two little boys on a tape recorder in a room with no help at all from any teacher.

Despite the complaints of the few, we came to know that children are entirely responsible, if we give them a chance to be. We were now ready to evaluate the workshop.

The Teacher's Role

If team teaching (*team learning* is a better term), the new technology or any new freedom of methodology is to overtake our schools, teachers must become totally CREATIVE to compete. If we do not or cannot compete and do continue to use traditional methods and machinery, we shall fail our students.

The totally creative teacher, like the totally creative artist, must develop a strong, free-wheeling attitude. Then the strength of that attitude can carry him along. He must not let his training, his biases, his sense of self-importance, his 'tried and true' methods get in the

THE B.C. TEACHER



Other new teaching devices and techniques were
demonstrated at the New Technology held at Van-

way of his creativity. He must learn to teach with others; he must bow to the superiority of the 'large-group' lecturer and accept his responsibilities as a learner; he must learn to take brickbats and praise, to experiment, to give up his security. Try teaching your next lesson with nine teachers sitting at the back of your classroom. Then ask them to give you honest criticism. Try taking part in a small seminar discussion with your students, all the while trying to be 'one of them.' Such experiences will give you an idea of what is demanded of you.

What is more important, the student's self-realization must become the be-all and end-all of your existence. Whatever is best for each individual child is important, not whatever is convenient or efficient or comfortable for you. This is the hardest lesson for the teacher.

The Student's Role

The student must learn to be ready and willing to work with others. Many students will need more counselling than they are getting now, especially in the elementary schools, to help them adjust to small group discussions. The new system will make more

mature men and women out of them, but in the beginning it will be hard. Elementary students must learn the process of 'give and take' well; secondary students must use it well.

The student must learn how to evaluate what he is doing. He must become intellectually honest. His 'best work' must really be his best work. Our traditional competitive system tends to destroy intellectual honesty. It puts high value on the parrot—but more and more teachers are training the parrot to sing a different tune. The students at this workshop proved children are ready, willing and able to learn that different tune.

The Principal's Role

The principal of a school supporting creative teaching and the new technology must be the teacher of teachers. He must do what the creative teacher does with his students; he must encourage, cajole, support, defend, provide for, push and pull his teachers into accepting an honesty of approach.

The principal's role seems subservient to that of the teacher in the new school, but no principal can stick to his role unless he accepts the importance of the other roles in the casting. It takes a far larger man or woman to *serve the creative teacher* than it does to *boss the traditional teacher*.

The Role of Trustees and Supervisors

The next few years will be challenging for trustees and for those who serve education in any supervisory capacity. Whereas the teacher working with children is busy learning how best to fit himself to his role, those in offices will get farther and farther away from the actual stage. A whole new attitude of mind regarding the value of money in terms of the costs of the new education will have to be developed. We all know, for example, that it is far cheaper to educate a man for life than to keep a maladjusted man in jail, where we pay for his total support. We are paying out far too much now for the partially educated.

We all know that it is cheaper to educate a man for life than to educate a man for a job. A man educated for life can handle the four process goals our new technology requires. A man educated for a job must be retrained as each job becomes obsolete. Traditional schools, we are told, educate for obsolescence. Creative schools educate for total living.

Money will not be the only cost to trustees and supervisors. A system of creative teaching will lessen their control over education. Give me freedom to teach creatively. I cannot report results every few months, only 'progress.' My method of teaching will take years to give results. I need your support, not your domination. I need a resource center, not a library. I need teaching areas, not classrooms. I need funds for things I've not yet dreamed of, or dreamed up. I need a low pupil-teacher ratio. I need funds for supplies and machinery next week to suit *these* pupils, not next

year to suit *those* pupils. I need the assistance of paraprofessionals to free me from trivia.

You'll get more than your money's worth out of me. You'll get more than your money's worth out of the knowledgeable men and women I help turn out of our schools.

The Role of the Machine

Even the mathematics teachers, in whose subjects most of the teaching programs and machinery have been most highly developed, thought that we must not over-rate their use in teaching. The new courses in mathematics develop a better understanding in children, they said, because they humanize mathematics. Machines tend to de-humanize. They should be used only for short-step development of fundamentals, for remedial work and for drill work. The machine can make the teacher's load easier. The machine can handle the individual problem in an overcrowded and very busy classroom. At best it gives each child a chance to improve himself; at worst it creates a boredom in children already bored by the seeming impracticality of their lessons. Creative teaching demands that the teacher explore all avenues of approach, and machine teaching could eventually be a wide and productive thoroughfare.

The computer may be useful for administrative processing and storage, but there is limited usefulness and efficiency for it in the classroom, even for remedial work. The best kind of machine would be one that the teacher can feed and program himself to suit his particular pupils.

Most teachers at the workshop agreed that we must all come to accept the computer and other machines in teaching. But the teacher must take on the responsibility of selecting the place for their use. No technology must get in the way of education—the leading out of the ignorant into light—the great humanizing process.

The Role of the Reactionary

To do creative teaching we must do away with most of the controls, yet there is a place for the reactionary. Take governmental examinations, for instance. Creative teaching demands that we remove them from the scene. They create havoc by demanding that individualized instruction come to a stop so the teacher can prepare his students for them. In some places they bend and warp teaching toward the examination, from the earliest grades. Yet we must evaluate each student for other agencies, be they the universities or employers.

In the new school, using technological instruments and creative teaching, how can we tell just where an 18-year-old student stands? Is he still at the 15-year-old level of reading? Is he well into third or fourth year of mathematics at the university level? Is he on a plateau of learning, or is he capable of far more than we can comprehend at the moment?

Am I as a teacher really capable of judging? This is the problem we must help solve to the satisfaction of all those who will receive the product of our schools. We must make concrete and useful suggestions now. If we are truly professional, we will not leave it to others to decide.

The Role of the B.C. Teachers' Federation

This workshop, perhaps the largest of more than 100 assisted and/or sponsored by the BCTF last year, is the beginning of a new era in professionalism. We must have a place and a time and the use of resources for this kind of experiment for new and experienced teachers alike. Some of those at this summer's workshop had been teaching for 40 years, but learned something new every day, both about the learning of students and about the capabilities of their fellow teachers.

We do not have time to do this kind of research in the course of the regular school day. Most of us are afraid to disturb. We do not often have the facilities to check our research findings with our colleagues. We lack control groupings; we lack the new technology; we too often lack the encouragement in our home schools because of traditional standards. We need to be with other teachers of our subjects and levels; we need to be with other teachers of all subjects and levels—all working to improve our own schools. It's no good listening to lectures, or reading articles like this one. You must EXPERIENCE the new technology, the freedom of creative teaching. The most important single thing the BCTF can do for education is set up this kind of workshop as a continuing project. We teachers know that there is no point in going elsewhere to gain knowledge for real teaching. We must stop merely adding to our knowledge and begin building on a strong foundation, a well-modulated school for teachers. We listen to lectures with half an ear; we teach with our whole body.

The BCTF has hit upon the key to fully professional development; we must all support it fully—teachers, supervisors, trustees and parents.

Let me thank the 41 teachers and more than 300 students of the workshop for giving me a 'lift.' Without their constant support, none of us might have had the fortitude to try what we tried. Special thanks go to Jim Carter who pioneered at Eric Hamber, and to Hamber's principal, Ken McKenzie, who gave us plenty of sound advice and who is responsible for the 'great experiment' in Vancouver. Bill Allester and John Church and all the crew of the Division of Professional Development at the BCTF office excelled even themselves with this workshop.

Only those who have experienced the interaction of creative teaching can truly appreciate its value. We must develop closer liaison between educators, between subjects, between levels, between schools, and with our own communities, if we are to grow professionally. And grow we must. □

WHAT DO THEY SEE WHEN THEY LOOK?

HELEN DAVEY

VISUAL PERCEPTION IS VITAL to learning, yet it must be learned itself. Piaget has theorized that the newborn infant is unable to differentiate himself from the objects in the world around him. Only as he begins to learn about himself and his total body schema can he perceive his environment clearly.

Many children, because of brain damage or malfunction, visual mechanism dysfunction, trauma, or unexplained developmental difficulties, reach our elementary schools with problems of visual perception. This area of perception has been found to correlate highly with reading readiness and with abilities in all school learning. Dr. Marianne Frostig, creator of the Marianne Frostig Development Test of Visual Perception and founder of the Frostig School of Educational Therapy in Los Angeles, has stated that 78% of the children referred to her school because of any type of learning disability have been found to be deficient in one or more areas of visual perception.

We all are familiar with such optical illusions as the ones presented here. But how many of us are able to interpret Figure 5? To the individual with poor figure-ground perception, who sees parts of the background

instead of the figure and for whom, therefore, the task of learning to read is nearly impossible, Figure 5 is the printed word *figure*.

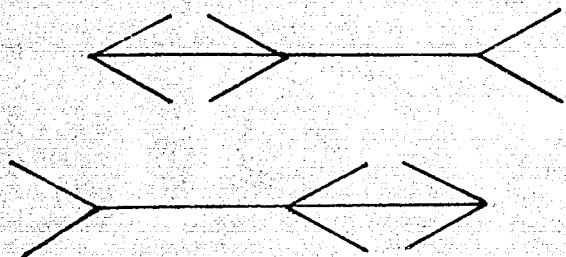


Figure 1

SEPTEMBER-OCTOBER 1966



Figure 2

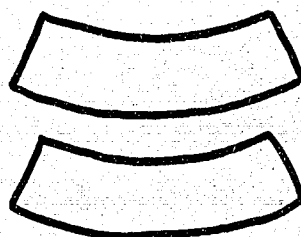


Figure 4

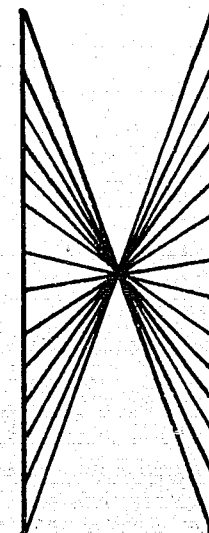


Figure 3



Figure 5

Mrs. Davey, a teacher of special classes in Victoria, is currently studying in California for her Master's degree.

To the child with poor visual perception much of what he sees is in essence optical illusion. The child with this type of problem often manifests many emotional problems because he has eyes that see but that don't see both what we think they see and what we want them to see. This child, unlike the physically handicapped, the orthopedically handicapped, or severely retarded child, doesn't 'look' different, so our expectations for him are unlimited. His needs are just as vital as those of the children who have an obvious form of exceptionality, and he silently cries for help. Too often this child, exhausted from trying, remains in school for many years, never getting the assistance which would allow for his success.

What are we doing about this situation? In many schools in our province, virtually nothing. Identifying children with problems in areas of visual perception while these children are in kindergarten or first grade classrooms would reduce the number of classes required for children with learning disabilities. Identification of weaknesses in visual perception can be successfully accomplished by the classroom teacher who is willing to exert just a little more than nominal effort.

Einstein has shown that all relationships in space are relative. The first step in seeking problem areas of visual perception is to see if the child can relate objects in space to his own body. Any but the severely autistic child is able to do this to some degree. But as much as the child's body image is variable and distorted, so also will be his exploration; and as much as it is rigid and restricted, so also will be his ability to explore.

To test for the child's concept of body image, the Kephart Perceptual Survey Rating Scale is excellent. With objects as common as the chalkboard, walking boards, and the child's body itself, one can locate weaknesses in such areas as balance, visual-motor translation, eye-foot co-ordination, control of body parts, directionality, laterality, perception of position in space, visual memory, and gross motor control.

Test Discovers Specific Weaknesses

After these major areas have been tested, more particular clues to perceptual disabilities must be sought. The Frostig Developmental Test of Visual Perception is a comprehensive test designed to discover specific weaknesses in the five major areas of visual perception. The first section of this test deals with eye-motor co-ordination. Weaknesses in this area are often caused by mixed dominance in the brain and result in severe difficulty in grasping the left-to-right progression needed for reading and writing.

Next, the Frostig test examines the area of figure-ground perception. Difficulties here result in the inability to find similarities within wholes in art or design, to locate details in pictures, and to recognize certain forms as letters.

The third area of visual perception with which this test deals is that of constancy of shape. Here it taps the child's ability to recognize consistently a shape no matter what its size, color, texture, or position. Ability to perceive shapes in this manner is vital in arithmetical readiness skills. The child with a lack in this area is also at a loss when he attempts to sound out new words or to remember old ones.

The fourth area tested is that of position in space. The abilities involved here are both similar and opposite to those needed to perceive constancy of shape. Our printed letters b, d, p, and q all contain similar entities, and the b and q and the d and p actually represent constant forms. They are, however, different because of their particular position in space. This area of visual perception is of extreme importance to the child in reading. If he is unable to perceive correctly or to copy correctly letter sequences, he will frequently make reversals not only in the position of letter shapes but also in the composition of actual words, and thus read *was* for *saw*, *on* for *no*, and *tub* for *but*.

The final Frostig test involves spatial relationships. This test examines the ability to copy patterns, to make mirror image patterns, and to locate specific items characterized by a particular relationship to others. The abilities needed for success in this area are those also needed for understanding concepts such as 'behind,' 'in front of,' 'above,' 'below,' 'top,' 'bottom,' etc.

Classroom Teacher Can Administer Tests

The Kephart and Frostig tests can be administered by the classroom teacher and are, in combination, complete in their investigation of both gross and specific weaknesses of visual perception. If a psychologist or psychometrist be available, other tests, such as the Ayres Space Test (which tests for form perception, space perception, and the ability to visualize the rotation of objects in space) and the Bender Visual-Motor Gestalt Test (which, as well as being a projective test, examines perception of spatial relationships and visual-motor areas and provides indications of how stimuli are perceived or added to by the subject), may be administered.

The relationship between visual perception deficits and the problems of children with learning disabilities cannot be altered. However, the years of potential frustration and failure that can result from these learning disabilities can often, with fast action, be minimized, if not completely erased, by identification of visual perception problems before November of the child's first year of school and by their treatment thereafter.

We have a new year and a new group of children. Let's do our best to aid in their future academic success by seeking clues to their problems in learning through careful examination of their visual perception abilities. □

Reading list on request.

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ONE APPROACH TO HELPING THE RETARDED

THE RETARDED CHILD has limitations in the entire range of abilities. He may perform relatively better in some activities than in others, but his best is rarely comparable with that of the normal pupil. We tend to overestimate his skill in the better areas and to underestimate his abilities in the poorer. If a child is shown to be a year or more behind his peers in only one subject, or perhaps two, he should be regarded as specifically backward, and the approach should be remedial teaching on an individual basis. Special education for the retarded is different in amount, in scope, and in depth from the normal curricula. There can never be a course of studies representing a body of knowledge that retarded children should master, for the goals for each pupil must be appropriate to his individual abilities and needs. It is a mistake to assess the retarded child against a general standard; to do so is to perpetuate the history of failure in his life.

Retardation is due to poor native endowment. In terms of intelligence quotients, this implies the IQ range 50-85; the range typical of a class for slow-learners is IQ 65-80. Without additional and aggravating factors, those pupils between IQ 80 and 85 will perform quite creditably even in comparison with the standards of a normal grade. If there are further inimical circumstances, they may not be able to match

even the most retarded. An emotional climate that is depressive, oppressive, or unduly stimulating can impair the capacity for learning of the retarded. They may also be affected disproportionately by sensory defects and faulty teaching methods. It is necessary to exercise caution when trying to establish the causes of inadequate performance in school. As defined above, retardation is always a consequence of limited intellectual powers. The other factors which often appear to be operating so clearly to the disadvantage of the pupil are secondary; for the normal child has shown that he can overcome the effects of auditory and visual deficiencies, faulty speech, an unfavorable home environment, and inept teaching.

In a class for slow-learners we may expect to find about one-fourth of the pupils with speech defects, one-third with poor sight, one-tenth whose hearing is sufficiently impaired as to limit comprehension, and one-fifth from homes where mental hygiene is rudimentary. Three-quarters of all these children will themselves exhibit signs of emotional disturbance which vary from the severe to the mild. Thus, we reach a point where retardation is not a matter only for the teacher. He cannot increase the level of intel-

The author is on the staff of Vancouver Technical Secondary School as teacher of a senior special class.

ligence, but by adapting his methods he should be able to produce a situation of maximum learning provided he has competent opinions on these secondary factors. He should have access to those parts of medical, psychological, and welfare-agency reports that have a direct bearing on the ability of the child to learn. It is not enough that the teacher should know that a child is hard-of-hearing, or is short-sighted; that his home is disturbed, and his parents harsh. There is little point in referring a pupil for psychiatric assessment if the therapist's findings are never made known to the other agencies involved in the case. The teacher who ultimately will be charged with the education of the child should be aware of the degree of sensory impairment, the estimated impact of environmental factors, and the current state of the child's mental health. Admittedly, the medical records and social workers' reports must remain confidential, otherwise any trust in the integrity of the professions will be lost; but confirmation that a home atmosphere is oppressive or demanding, that a hearing loss is severe enough to render class-teaching ineffective, and that the sight is so impaired that a child cannot comfortably seek information from a book or interpret what is written on the board, is not betraying any confidence. It is privileged information for use by people who are dedicated to helping the handicapped pupil.

Someone Must Co-ordinate Reports

An exchange of views in a particular case frequently depends on the initiative of one of the members of what should be a team comprising, as may be necessary, the school doctor and nurse, a social worker, the psychologist, and the teacher. Because the teacher spends more time with the child than do the others, the onus of collecting facts from them frequently rests with him. If he should be young and inexperienced, he may regard this task with apprehension, for he is not secure in his professional competence; and the team-approach toward the solution of an educational problem is not an established procedure in every school. Yet, the efforts of any one of the team may be vitiated if no one takes the trouble to co-ordinate the individual reports and try to discern a pattern of cause and effect in the case under review. A defect of hearing, for instance, may not be educationally significant, but the attitude of the parents of a child with impaired hearing may be devastating. The home conditions of another pupil, bad as they are, may affect his ability to learn to a lesser extent than a speech defect. The apparently deaf child may be aphasic, implying in this instance disturbances other than deafness. The relative importance of each finding can be assessed only when a conference of all the workers on a case produces a comprehensive report that is representative of all the disciplines involved. It is essential that the meeting have a recording secretary (it may be the special-class teacher) who is

sufficiently aware of the impact of various deficiencies, whether physical or sensory, on the learning process to be able to isolate the main and subsidiary causes of backwardness or retardation.

There are reports prepared on pupils who are referred for clinical assessment, but each is written from the point of view of the profession concerned in that part of the examination. Thus, the audiologist records his findings, the psychologist makes his tests, and the psychiatrist prepares a summary which reaches the school. This is read by the school nurse and the teacher. It is interesting, general information which may or may not affect the approach of the latter in the classroom. To obtain any further clarification on points in the reports or in the summary is difficult because no simple machinery for continual consultation exists at the present time. An additional weakness is the absence of any means of producing a teaching program which has the overt support of all those consulted during the case-study.

'Operation Order' Should Be Prepared

Ideally, we should find for each handicapped child who has been the subject of a comprehensive examination an 'operation order' which lists his present deficiencies, assesses the degree of improvement that can reasonably be expected in his physical, mental, and educational growth, and sets out specific and realistic goals for him. It should then contain an outline of the teaching methods to be used and any suggestions about modifications in the school routine as they apply to this child. Such a document is analogous to the schedules of treatment prescribed by a doctor. It is the executive aspect of any measurement of abilities. Without it, we shall continue to have our files stuffed with a mass of high quality reports on which no effective action has ever been taken.

The steps necessary to attain an ideal position are clear. First, we may continue to refer children under the present system. Second, when a clinic is held, the reports of all those who have been engaged in the examination should be read aloud. Third, under the chairmanship of the psychiatrist, the members of the clinic should constitute a committee charged with the task of preparing a comprehensive report which avoids mention of any details in the individual reports that may be considered to be a breach of confidence. Fourth, the teacher in consultation with his principal should prepare the 'operation order' for the child's education. Sufficient copies of this should be available for other members of the clinic, and they should be invited to comment on the suggestions. The present writer feels that if this procedure were adopted, the non-teaching members of a board of assessment would have the satisfaction of knowing that their findings had real significance for the school, and the teachers would appreciate more fully than they do at present the value of a team-approach to problems arising in the classroom. □

WE'RE MISSING THE BOAT

ARTHUR D. LAFFERTY

Teachers involved in a unit of study discuss and determine procedures. The resource person (the author in this case, at head of table) guides and directs the unit.



WE ARE CARELESSLY and inexcusably overlooking one of the greatest educational achievements of modern times!

Team teaching emphatically challenges our 'rooted' system of education to awaken to the enormous possibilities of modern, progressive thinking. Thus far, this innovation has presented sound evidence of success in its many pilot runs, and is successfully entrenched in many regions outside our province; yet we are hardly aware of its existence.

Basically, team teaching is a means by which authoritative instruction can be placed before and shared by all students in a given setting. There are, perhaps, dozens of systems, but the basic concept remains consistent throughout. Indeed, some modern schools have planned their entire physical plant around the team teaching movement, providing a central area expressly for team functions. The motive and purpose is clear and precise: students have an inherent right to receive the best possible instruction and we teachers have the solemn duty to provide it.

It would be foolish for any teacher ever to suppose

that he possesses the vast reservoir of knowledge necessary to cover thoroughly all aspects of a course in depth and detail. All too often, we find the world progressing beyond our basic understanding. Team teaching provides the most reasonable and concrete method by which we can share in our common plight and, consequently, assure the continuity of a purposeful and far-reaching program of quality education.

One cannot refute the need for, nor the dynamic results of, team teaching. One may quibble for years, however, in an effort to determine how such a concept should be applied in a local setting. Let's be frank! The success of team teaching depends wholly upon competent leadership and sincere motivation. Such an activity doesn't just happen; it must be created.

Formerly head of the English Department at Booth Memorial Junior Secondary School, Prince Rupert, and now at Campbell River Junior Secondary School, the author has had considerable experience with team teaching.

Team teaching, if properly undertaken, is not an easy task. It is time-consuming and demanding, but the results are proportionately favorable. Team teaching requires co-operation among members of an academic department, and often among departments themselves. Essentially, team teaching challenges our professional stature. It demands that we adjust our thinking to seek the far-reaching results of a broadened curriculum, rather than the narrowed results of an isolated effort.

A successful team teaching program requires three fundamental considerations: (1) facility, (2) resource personnel and (3) preparation and organization. None of these features is beyond the scope and limitations of most schools. Let's examine each briefly.

Facility—Administrators and school boards should provide a multi-purpose room capable of housing all students enrolled in a given subject at a given time. A room designed expressly for team teaching is obviously preferred, but this is, unfortunately, a rarity.

Resource Personnel—Department heads should logically assume the responsibility of integrating team teaching into their academic areas. After reviewing the course content, teachers should be pooled in an effort to determine areas of outstanding strength. This becomes the first criterion in determining who should be the resource personnel. Thereafter, one should determine, from desire and motivation, who among the staff would be sincerely interested in pursuing a topic in depth, thus researching and obtaining up-to-date material and knowledge. Next, one should analyze the availability of outside resource personnel. Tremendous success has been achieved through securing the services of such people as police officers discussing problems pertinent to driver education; athletes discussing their specialties in physical education; pub-

licists and authors discussing their methods in English; politicians on government/social studies, etc. The potential is virtually unlimited. Such people are very often extremely anxious to co-operate, even to the extent of assisting in the preparation of preliminary and follow-up procedures. Finally, we should never overlook the potential of audio visual aids. Such devices, if properly planned, can provide lasting results.

Preparation and Organization—The success and lasting effect of team teaching depends upon sound planning and organization. Every team teaching effort should include detailed preliminary data as well as extensive follow-up material. Preliminary data should be distributed early enough to allow for ample class preparation prior to the team teaching event. Resource people will very often prefer a certain amount of prior awareness before presenting a lecture. Often, recommended readings will be provided, or, perhaps, simple discussions will fulfil the need. At any rate, such preliminary work should be prepared by or with the co-operation of the resource person himself.

In similar fashion, follow-up plays an integral part in the total success. Here again, simple discussions and/or selected readings may be recommended, often followed by selected testing. All recommended features, including timely questions and source data, should be distributed long enough in advance to facilitate individual planning.

Three basic and fundamental considerations can change the entire spectrum of education. Here lies an opportunity to discard traditional stagnation and take the lead in one of the most dynamic innovations of our time; yet, we are hardly budging. Why are we allowing ourselves to miss the boat? Is it a fear of the unknown? Are we still clinging to traditional cobwebs? Whatever the case, we must eventually awaken to the world around us; it moves . . . and so must we! □

The resource person presents a pre-determined subject to a large group. The students have already undergone preliminary preparations within their assigned classes, and can look forward to detailed 'follow-up' procedures in like manner.



C. R. MOSS

updating science in the elementary schools

LAST NOVEMBER 24 the B.C. Elementary Science Curriculum Revision Committee held its first meeting, and in so doing marked the beginning of a long overdue attempt to improve the present elementary science curriculum, which the BCTF Curriculum Directors had earlier described as 'hopelessly inadequate and badly dated.'

This Elementary Science Curriculum Committee is a unique committee in two respects: it is the first B.C. curriculum revision committee to be jointly sponsored by the BCTF and the Department of Education and it includes two members from areas other than the Lower Mainland.

These two departures from previous practice are significant as far as the planning of future committees in B.C. is concerned. The joint sponsorship reflects a growing interest and participation in curriculum development by the BCTF. The inclusion of members from Vancouver Island and the Interior indicates a recognition that teachers in districts outside the Lower Mainland should not be prevented by distance and cost factors from contributing to curriculum development.

An interesting feature of the committee is the establishment of two sub-committees under the chairmanship of the Vancouver Island and Interior members of the main committee. These sub-committees were formed to provide for continuous and broadly based critical evaluation of the main committee's findings and recommendations. The sub-committees are also initiating, supervising, and reporting on trials of new elementary science units in their areas. It appears that, so far, these sub-committees are fulfilling their roles very well.

Since its formation, the main committee has held eight meetings and reports the following progress:

a) It has identified the weaknesses of the present elementary science program.

b) It has prepared a draft-copy of objectives for the new elementary science curriculum.

c) It has produced a preliminary curriculum plan—in curriculum committee jargon, a scope and sequence plan—designed to achieve the suggested objectives.

The committee's preliminary report on the 'scope and sequence' of the new curriculum indicates that extensive use will be made of units developed by the Elementary Science Study (ESS)—with other units developed by SCIS, ESSP and UCESSP being used to lesser degree.^o

For example, the first year may include the following units: Material Objects (SCIS); Animals in their Environments (ESS); Variation and Measurement (SCIS); Growing Seeds (ESS).

The fifth year of the curriculum is suggested as follows: Small Things (ESS); Kitchen Physics (ESS); 'How I Began' (UCESSP).

The seventh year might include: Microgardening (ESS); Batteries and Bulbs (ESS); Charting the Universe (ESSP).

The fact that many of the units being considered are of very recent development makes the placement of units at a suitable level of the curriculum difficult. In an attempt to acquire adequate information on which to base its decisions, the committee has encouraged the trial teaching of a variety of units in various school districts in B.C., including Alberni, Birch Island, Barriere, Coquitlam, Kamloops, North Vancouver and West Vancouver.

This list is not an exhaustive one—the committee is aware that other districts have tried out new elementary science materials and approaches—but it represents the districts with which the committee has had most contact.

The reports on these trials will form a fund of experience on which the committee can draw in making its recommendation on the placement of units.

The problem of placing units at the correct level of the curriculum is, in fact, not a critical one, for most of the proposed units have a broad 'grade spectrum' and can be used effectively at several levels of the curriculum.

Some districts have experienced difficulty in obtaining the materials required to teach some of the new science units, but this is a temporary difficulty which will disappear as production, packaging and distribution problems are overcome.

The committee has observed lessons involving the use of several of the proposed new units and has been impressed by their effectiveness. In most of the lessons observed, the units were being successfully taught by teachers who had no special training in science. The obvious interest and enthusiasm of the pupils in these classes as they worked with their materials to solve problems and discover relationships was convincing evidence that this practical discovery approach was achieving results far beyond those possible in a text-book-centered approach.

The author is principal of Bert Edwards Elementary School, Kamloops.

During the next few months the committee will continue to refine and develop the 'scope and sequence' aspects of the new curriculum. It will also work on an introduction to the new curriculum which will attempt to outline the philosophy on which the new program is based and pinpoint significant differences of approach inherent in the new program. It is evident, even at this stage, that retraining of all elementary teachers will be necessary if the new elementary science curriculum is to be successfully introduced into our schools.

This retraining will not be aimed primarily at developing the teacher's fund of factual scientific knowledge, but will attempt to reorient his attitude to science teaching from the present textbook-centered, authoritarian approach, in which the teacher tries to play the role of an omniscient scientist determined to tell the children all the answers to one in which the teacher abandons his position of authority and says, 'Let's find out,' or 'Let's test our idea.'

The success of the proposed new approach will depend upon the teacher's acceptance of the idea that—to use Piaget's words—"The goal of education is not to increase the amount of knowledge, but to create the possibilities for the child to invent and discover. Teaching means situations where structures can be discovered; it does not mean transmitting structures

which may be assimilated at nothing other than the verbal level.'

The committee believes that the elementary teachers are ready to accept the philosophy on which the new approach to elementary science is based. Given a well planned curriculum, adequate equipment and facilities, our elementary teachers could fulfil their vital role in the school system's task of producing a scientifically literate society.

In view of the urgency of the need for a new elementary science curriculum, it is to be hoped that, before the end of this school year, the committee will be able to publish another article entitled 'A New Elementary Science Curriculum for B.C.' □

•Elementary school science experimental units are now being developed by the following study groups in the United States:

ESS (Elementary Science Study)—Educational Services Inc., 108 Water St., Watertown, Massachusetts 02172.

SCIS (Science Curriculum Improvement Study)—Department of Physics, University of California, Berkeley, California 94720.

ESSP (Elementary School Science Project)—University of Illinois, 805 West Pennsylvania Ave., Urbana, Illinois 61801.

UC ESSP (University of California, Elementary School Science Project)—222 Building T-3, University of California, Berkeley, California 94720.

AAAS (American Association for the Advancement of Science)—1515 Massachusetts Ave., N.W., Washington, D.C. 20005.

ESCP (Earth Science Curriculum Project)—University of Colorado, Boulder, Colorado.

ARMCHAIR IN-SERVICE!!

RONALD R. MONTY

I'M SURE THAT YOU, like most other professionally-minded teachers, have been faced with the dilemma of workshop attendance. By the time Saturday rolls around you are ready to put your feet up and relax, or pursue that hobby which provides for the recuperation so necessary for teachers. You need those relaxing Saturdays but feel you must attend a series of Saturday workshops which will help you to do the best possible job in the classroom.

Many local association in-service chairmen have tried to remedy this Saturday problem by holding workshops after school or in the evening, but here too teachers are faced with a choice between two undesirable elements—attend and miss your class preparation and marking time as well as your recreation, or don't attend and miss an opportunity for further professional development.

Add to this the frustration of the fact that all workshops are not as valuable as they might be, in spite of the best efforts of in-service committees, and you have the classic symptoms of 'workshopitis,' a relatively new

malady for which there seems to be no known cure.

I suggest we prescribe television.

Most teachers devote at least one hour each week toward their own professional improvement through attending workshops, reading professional journals or discussing some professional problem with colleagues. Many would welcome the opportunity of extending this improvement by watching special in-service telecasts for an hour early on Saturday mornings, leaving them with the rest of the day free for their own activities. This approach could conceivably lighten the workshop load which, because of new courses, system changes and the development of new teaching techniques, seems to be increasing.

Picture this hypothetical case on a Saturday morning in October. Grade 7 mathematics teachers in all corners of the province who have been teaching the new course are watching a stimulating telecast 'starring' Dr. Eric MacPherson, one of the authors of the new text. Because this is the last in a series, the speaker is answering questions his viewers have phoned in to the tv station's Zenith (collect) number. Many Grade 4, 5, 6, 8, and 9 teachers are watching too, for they realize that they can teach most successfully when

The author, an elementary school principal in Nelson, is In-service Education Co-ordinator for the West Kootenays.

they know where their students have been and where they are going.

Each Saturday morning throughout the school year teachers could be provided with high quality programs including lectures, demonstrations, taped classroom sessions conducted by master teachers, and new course workshops of the nature recently proposed by the Department in certain secondary fields. How could it be done?

The CBC has a network of tv repeater stations which reach all population centers in B.C. These stations, as far as I am aware, transmit test patterns every day up to 10 a.m. It may be possible to purchase time from 9 a.m. - 10 a.m. on Saturday mornings for teacher in-service education. The CBC is already active in providing air time for the educational telecasts used in the schools, and it seems to be a logical extension to provide this further service to those implementing the educational system. In any event, if the Department believed that television used in this fashion would assist teachers to become more effective, I'm sure it would make a valuable ally in negotiating with the CBC for the time we would require.

I am not suggesting that all workshops be replaced with telecasts. I do believe, however, that many workshop organizers would welcome in-service telecasts as an excellent way of providing the best speakers without the usual expenses of travel and honoraria. In other words, if teachers in an area favored the workshop approach to any subject, a successful program could be built around a telecast.

There are many teachers in remote parts of the province who, because of their isolation, have little opportunity to attend workshops. Those within range of the booster stations could benefit greatly from tv in-service. There may be some in the metropolitan areas who feel that this minority group need not be the concern of the rest of us, but any profession is judged by all its members, not only the more effective ones.

Though Expensive, Proposal Has Advantages

My prescription is an expensive one. However, most patients will gladly pay the cost of the remedy if it cures the ailment. Where is the money to come from? From the pockets of our members, just as it does now for our present in-service program. The actual cost per teacher will depend upon many factors including the cost of air time, production costs, the number of telecasts, and the total membership sharing these costs.

Probably the most convenient way to approach the money problem would be to assess the membership an initial levy of, perhaps, \$1.00, either through local associations or district councils. This levy could provide the capital to finance a pilot project this year which would give us an opportunity to assess the effectiveness of tv in providing for our in-service needs. If the pilot project were successful, direct BCTF financing would have to be considered at an AGM.

I am sure you can see some advantages to my

proposal, but I would like to enumerate them in case there are some you may not have considered.

1. Workshop time can be reduced without a reduction in training value.

2. Teacher and resource person travel time and expense can be minimized.

3. The hazards of winter travel can be avoided through 'living-room' in-service.

4. The very best authorities in a given field can be utilized to provide the best quality in-service education.

5. Genuine classroom demonstrations can be taped and utilized as program material.

6. Programs can be re-broadcast from tape upon demand.

7. Programs can be used in the traditional workshop format by any local in-service group if desired (with the added advantage of no expenses or honorarium for the speaker).

8. Related-field interest would likely be displayed by more teachers and this could result in a general broadening of teacher background.

9. Greater teacher-involvement in in-service would likely result in a higher level of classroom effectiveness for more teachers.

Limitations Must Be Considered

There are also limitations to be considered.

1. The workshop question period is often the most valuable part, and tv cannot offer direct contact between speaker and audience. This disadvantage can be partially offset, however, through the use of collect telephone calls to the tv station.

2. Expense could be considered the greatest disadvantage to the scheme. However, if it is considered in the light of what is already being spent on our in-service activities, perhaps in-service through tv would be a more efficient means of fulfilling our needs with the money available. We may be able to get more, of better quality, more conveniently.

3. Some may consider it a disadvantage to program professional material through a medium available to any tv set owner. However, I see two distinct advantages to the public's viewing our in-service material. First, if Billy's mother can learn something about his mathematics, she can understand not only his problems in learning but also ours in teaching. Second, the knowledge that teachers are spending thousands of dollars on their own professional development could do much to help offset some of the criticism we receive at agreements time.

4. Perhaps a one-hour telecast is insufficient to consider all aspects of a given subject. For certain subject areas a series would have to be considered.

I am sure there are other arguments both for and against in-service through tv. However, I hope I have convinced you that the idea is worthy of further investigation and consideration.

I'm looking forward to more Saturdays at home, aren't you? □

STAFF REQUIREMENTS

For DEPARTMENT OF
NATIONAL DEFENCE SCHOOLS EUROPE
1967-1969

Department of National Defence Schools provide elementary and secondary education for children of personnel of the Canadian Armed Forces serving in Europe. Teachers at the Canadian Schools in Europe are on loan from their school boards for a minimum term of two years.

To qualify for such assignments teachers must:

- (a) be single,
- (b) have at least five years successful teaching experience,
- (c) be between the ages of 23 and 40 years if female and between the ages of 23 and 59 years if male.

Exceptions to (a) above are sometimes made when single, well qualified teachers of senior subjects (Grades 11 to 13) or principals are not available.

SALARIES:

Staff receive basic salary and other staff benefits as if they had continued to be employed in their Canadian school subject to the following ceilings:

Teachers — \$9,000.

Principals of schools with classes at Grade 9 to 13 level \$13,500 and of elementary schools \$11,000.

REQUIREMENTS:

For September 1967 requirements will be as follows:

Elementary Level (Kindergarten to Grade 8)

Several Principals, Teachers for all grade levels but with the majority of vacancies occurring at the Kindergarten-Primary level and Teachers of French Conversation.

Secondary Level (to Grade 13)

Teachers Gr. 13 Biology, Chemistry, English, French, German, Geography, History, Latin, Mathematics, Physics; teachers of Home Economics, Industrial Arts, Physical Education (Boys and Girls) and Commercial subjects (Pitman shorthand).

Department of National Defence will negotiate with employing Boards only and not with teachers. Teachers wishing to be nominated for positions overseas must apply to their employing Board for such nomination and not to the Department of National Defence. Boards which have not as yet nominated teachers and are interested in doing so should write to the Director of Dependents Education, Department of National Defence, Ottawa, for detailed advice on procedures to be followed.

Nominations for the 1967-69 term must be received by the Director of Dependents Education before 1 December, 1966. Most School Boards nominate teachers as a form of recognition for exemplary service rendered and it is hoped that this policy will continue.

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— you will find them most helpful

Here is information that will be of life-long value to your pupils! Each of these teaching aids is prepared in interesting, easy-to-follow form. Their usefulness both to teacher and pupils has been demonstrated in many Canadian schools. Check the following list:

BOOKLETS

Life Insurance—A Canadian Handbook (1964 Edition)—Available in both English and French. An 80-page illustrated booklet. Outlines the fundamentals of life insurance. Answers numerous questions which are frequently asked by teachers, students and the public generally. One copy free to any teacher.

The Story of Life Insurance—A 20-page illustrated booklet telling the history of and important facts about life insurance in simple terms. Available for useful distribution in quantity, free. In English only.

Problems in Life Insurance—A teacher-student workbook unit of value for Business Practice and Mathematics classes. One complete unit free to a teacher; student portion available free in quantity. In English only.

Careers in Life Insurance—Available in both English and French. A 24-page illustrated booklet. Discusses many careers in the life insurance business as a life-time occupation. Available for useful distribution in quantity, free.

A Miss and Her Money—Informal and readable 20-page illustrated booklet for teenage girls. Offers useful tips on earning, budgeting and saving money. Available for useful distribution in quantity, free. In English only.

Money in Your Pocket—For teenage boys—a bright entertaining 20-page illustrated booklet dealing with simple fundamentals of money management and life insurance. Available for useful distribution in quantity, free. In English only.

The Family Money Manager—An 8-page brochure prepared to assist families in solving money management problems. Useful for classroom discussions on budgeting. Available for useful distribution in quantity, free. In English only.

You and Your Family's Life Insurance—A 28-page booklet describing how life insurance helps individuals and young families build a security program for their entire lives. Available for useful distribution in quantity, free. In English only.

FILM STRIPS

Careers in Canadian Life Insurance Underwriting—(Revised 1962) Black and White. Available in both English and French. A 47-frame film strip on the career of the life underwriter, for use in guidance classes. One print and one teaching manual free to each school.

The Life Insurance Story—Part I—(Revised 1963) Black and White. Available in both English and French. Reveals interesting facts through the highly effective film-strip medium. One 36-frame print and one teaching manual free to each school.

The Life Insurance Story—Part II—(Revised 1963) Black and White. Available in both English and French. This film strip deals with the various classes of life insurance, the calculation of premium rates, types of policies and their uses, etc. One 42-frame print and one teaching manual free to each school.

The Life Insurance Story—Part III—(Revised 1963) Black and White. Available in both English and French. Deals with the different kinds of life insurance companies, their operations and the foreign business of Canadian companies. One 31-frame print and one teaching manual free to each school.

You and Your Food—Color. Available in both English and French. Valuable instruction on what to eat to be healthy. Deals with proper foods, nutrition and energy. One 28-frame print and one teaching manual free to each school.

To obtain any of these FREE teaching aids, simply tear out this advertisement, indicate items desired, marking quantity needed for each, and fill in the information requested below (please print).

Name of teacher ordering _____

Grades and subjects taught _____

Name of Principal _____

Name of School _____

Address of School _____

Enrolment of School _____

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EDUCATIONAL DIVISION,
THE CANADIAN LIFE INSURANCE ASSOCIATION,
302 Bay Street, Toronto 1, Ontario.



Adequate equipment, including typewriters, must be readily available for student writers.

WARREN DAMER

wanted: a course in contemporary writing

THERE SHOULD BE SOME PLACE OF some time for the good student to explore his skill in writing and speaking. Most English courses depend upon the teacher's cultural background for their drive, but what room is there for the individual and creative senior?

Far too many would-be writers never discipline their talents for an audience. This is where a solid course in contemporary writing can be valuable. Some schools may call their course 'Journalism,' others may call it 'Creative Writing,' but both titles carry suggestions contrary to what I have in mind.

Courses in 'Journalism' used as dumping options for easy credit, lacking either entrance requirements or evaluation standards, lead

The author, a Victoria teacher, has written for the magazine previously.

only to producing a school paper and possibly a yearbook for a soft course. Nobody really appreciates such a course.

Yet surely there has never been a greater need for people knowledgeable in the history and the problems of free public information. And here is where one of the serious problems of journalism in the secondary schools lies. The student paper must be free enough to invite the contributions of the more radical sections of the school; the publications sponsor must be sufficiently shrewd in assessing the needs of his school to permit the widest possible freedom of expression without seriously overstepping bounds of good taste. Student publications must be free to criticize even the administration of the school if criticism is merited and is intended to

improve the educational life of the students. It is the sponsor-instructor's job to ensure that his students are taught the ways and means of handling controversial copy.

If this sounds like a troublesome premise, I agree. But it is only by taking a few risks that imaginative and resourceful students can be taught to cope with a treacherous world.

I would suggest, as a basic class, not more than 20 students. An average of 100 words a day for submission and grading would be adequate workload for teacher and student alike.

By using a weekly newspaper and a standard duplicating system, the problems of space, lay-out, art design, and color could be handled on the job. A minimum of one typewriter for each pair of students

THE B.C. TEACHER

would be necessary. Failure to supply adequate production equipment with suitable permanent space is like asking a person to teach cooking without a stove.

There must be an adequate library available at all times. There must be copies of the local daily newspapers in the journalism room, and there should be a minimum of four international subscriptions as well. Radio and television equipment is needed for monitoring local newscasts and for studying their techniques. Other resource material should include magazine subscriptions to cover a wide range of public affairs, farm, factory, social and scientific news.

In addition to the project aspects of work, there must be a lecture or lesson series covering the history of Western journalism: from Nedham to Thomson or Harris to Luce. By the time one had explored Milton as a pamphleteer, Dryden as a politician, Addison and Steele as journalists and Dickens as a Grub Street hack (and don't forget Thackeray), the way would be clear to study Franklin's approach, and Cricket's, through Mencken's to Ernie Pyle's. It wouldn't hurt to see the dispatches of Winston Churchill, either. At some time or other,

a great many of the world's literary men have put in time for the Press.

The study of style includes both trade-writing and entertainment-writing. News reporting includes a great range of general coverage, while journals and magazines require specialists of all kinds. The entertainer may well turn out to be an artist at writing the short story, essay or play.

Technical studies should include the means by which printed, oral and visual communications are carried into production, with field trips wherever possible to newspaper plants and radio and television studios.

A course in contemporary writing may well serve as a means for students in the upper third of the school's academic community to contribute their thinking best. Utilizing individual methods of instruction, the project-backed program serves to explore and delineate the community within a school, helping all students in their search for values. Such a course tailored to the student by his instructor should call upon the widest abilities of pupils in all their studies, giving them the opportunity to test their skill in expression against many levels of criticism. □

Problems of space, lay-out, art design and color are worked out as the job progresses.



SEPTEMBER-OCTOBER 1966

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FROM OUR READERS

Is the Answer Right or Wrong?

Port Coquitlam, B.C.

Sir,

How many times does it occur in a Grade 8 mathematics class that the pupil will 'do' a problem this way?

$$\begin{array}{r} 2\ 5\ 6\ \text{eight} \\ +\ 3\ 2\ 3\ \text{eight} \\ \hline \end{array}$$

$$5\ 7\ 9\ \text{eight}$$

Of course, the answer is wrong, it should be 601eight. So Johnny or Jane gets a big X for the effort, and the entire operation has contributed not a tittle to his or her mathematical understanding.

In point of fact, the answer is correct, moreover is correct without regard to the base. The problem Johnny or Jane has correctly solved is conventionally written:

$$\begin{array}{r} 2x^2 + 5x + 6 \\ +\ 3x^2 + 2x + 3 \\ \hline \end{array}$$

$$5x^2 + 7x + 9$$

In other words, the answer is correct for *any* base.

To mark such an answer wrong is to teach only slavish adherence to the rule that the digits must be less than the base. Such answers can be used by the teacher to impart a wider understanding of the structure of the number system and to provide the pupil with an entry

into algebra ('Suppose I do not know the base, can I still do the arithmetic?').

I feel the topic of bases other than 10 is included in our course with this intention. To mark wrong an answer such as the above defeats this intention.

BRUCE EWEN

Correspondent Wanted

4 Gray Street,
Woodville West, S.A.,
Australia.

Sir,

Please permit me to enlist your assistance in my venture to secure an art and craft teacher in the late twenties to correspond with me. I do not expect any more than one or two exchanges of mail per term but I would prefer to establish a fairly lasting dialog with said teachers. Therefore will you kindly circulate my request and state that I intend to turn over any extra responses I cannot acknowledge to the Art Teachers Association. This should not cause any disappointment to teachers in answering my request.

Thanking you in anticipation.

JOE H. LAMB

A Child Views his Family

Oyama, B.C.

Sir,

Today I had my Grade 1 class write a little composition about their parents. The one I have enclosed is priceless. I think it should be shared.

The young author, age 6, is a pupil in our little country school. The child's parents read it and agreed to my sending it to you to publish if you wish.

(MRS.) EVELYN GRINDER

Mother and Father

My Mother is pretty.

She has a present from Father.

She open the present and there was a gold dimend.

She kist Father. He said you are pretty. I Love you. Mother said I Love you to.

She said you have two take me down to the store. Lets go to bed. yes

THE B.C. TEACHER

These Teachers Have Passed Away

Active Teachers	Last Taught In	Passed Away
Fred Hadfield	Kelowna	June 18
Mrs. Mary Charlotte Kirkpatrick	Enderby	July 18
James Garnet McNish	Vancouver	May 24
Llewellyn John Prior	Burnaby	July 21
George Douglas Watkins	Cowichan	June 1
Mrs. Dorothy G. C. Williscroft	Nelson	August 11
Retired Teachers	Last Taught In	Passed Away
James Ray Atkinson	Vancouver	August 24
George Anstey	Victoria	July 28
Miss Nellie Bain	Vancouver	March 22
Miss Olivia B. Burgess	North Vancouver	May 15
Sydney W. J. Feltham	Summerland	June 8
Mrs. Irene V. Green	Vancouver	April 19
Norman Leslie Kirk	Vancouver	August 10
William H. Kolthammer	Creston	April 3
Oliver Lacey	Vancouver	March 31
Miss Alice M. Lacombe	Vancouver	April 24
Frederick J. Lawrence	Vancouver	May 6
Thomas Peddie	Vancouver	May 3
Miss Anna Petanaude	Williams Lake	July 15
George E. Richards	Penticton	August 15
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These Teachers Have Retired from Teaching

At the close of the school year in June, one hundred seventy-eight teachers said farewell to their classes for the last time. To all these colleagues the Federation extends its good wishes for the future.

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COVER STORY

NEWS OF GOLD on the lower reaches of the Fraser River caused great excitement in the territories of Oregon and Washington. Many of these people had heard of the fortunes made in the California gold rush nearly ten years before and so decided to try their luck in these new fields to the north in British territory. In addition, many miners in California also heard the

news. The result was a stampede to the Fraser River area.

In 1858 ship after ship came into Victoria's harbor carrying people of all types clamoring to get licenses to work the sandbars and to try their luck in the gold fields. It has been estimated that some 20,000 people crowded into Victoria between April and August.

Any kind of vessel, large or small, was pressed into service to take the prospectors from Vancouver Island up the Fraser to Hope or Yale. The most famous of all the steamers on the river was the little *Beaver*, the first steam vessel on the Pacific Coast. The picture on our cover shows her loaded with miners on the journey up the Fraser. □

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MANY YEARS AGO I abstracted the following quotation from an essay by H. G. Wells—it seems like a good one with which to lead off this year's series of columns:

'Telling the truth is the latest achievement of the human mind. So far the achievement is very imperfect . . . There is a real resentment in most minds against people who talk or depict too nakedly. Most of us prefer to float in a rich warm buoyant juicy mass of make-believe. Our minds are still in the amphibian stage and cannot hold out in the clear dry air . . . A day will come when we shall cease to hide away from each other, creeping into holes and crannies. Man is born secretive, intricate and self-defensive, and he learns to become frank and simple. Candor, like everything else, is a thing to be achieved with infinite difficulty. Our deeds are dreadful because our minds are dark.'

Candor is not only infinitely difficult to achieve, but when achieved apt to prove an uncomfortable, even dangerous, characteristic to possess.

Wells must have been aware that the candid person has a very tough time of it these days. He is quite likely to find himself in a minority of one, surrounded by indifference, suspicion or hostility.

As an interested spectator, I have been astonished over and over again by the intensity of the resentment aroused when make-believe is confronted with honesty and sincerity. I'm reminded of a remark made by a character in a Thomas Mann novel,

'We are most likely to get angry and excited in our opposition to some idea when we ourselves are not quite certain of our own posi-

tion and are inwardly tempted to take the other side.'

There is something else to be noticed about these resentful reactions, and that is that they are apt to reveal more about the individual expressing himself than he is aware of. It's surprising how much of himself an angry and resentful person reveals to someone who listens with a third ear.'

Maybe the trouble with the angry one is that he listens with only one ear. He then either hears imperfectly, or hears only what he wants to hear. Then, like many critics, he criticizes not what the speaker says, but what he himself hears, and so misses the point completely. □

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The appointment of Mr. R. W. W. Robertson as a Vice-President and Editor-in-Chief is announced by Mr. R. D. Sandwell, President of Burns and MacEachern Limited, book publishers.

Mr. Robertson, who entered publishing from the field of education, has been Executive Director and Editor-in-Chief of a major Canadian publishing company. He will apply his knowledge and experience in both fields to the development of a strong list of educational texts and reference works at Burns and MacEachern.

In this work he will be assisted by Mr. Walter G. Scott, who joins the Company as Field Editor. Mr. Scott, also, has had extensive experience in education and in book publishing.

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NEW BOOKS

C. D. NELSON
Book Review Editor

WELCOME AGAIN

to another school year full of interest and activity. We have a slightly mixed bag this month, with the main interest seemingly in English grammar, composition and such. We are also pleased to introduce a new reviewer, Conrad Schamberger, an expert on modern languages.

WE RESPECT

the opinions expressed by our reviewers, and are not unduly disturbed if their evaluations of the books they handle do not happen to agree with those of others. We therefore print a commentary by one of our regular contributors without any apology, since none is needed. Below it we also print a portion of a letter from the publisher to the reviewer in which certain reservations are expressed on the review. In our opinion, perhaps the real interpretation lies somewhere in between. We also hold to our belief, stated some time ago, that there is a place in these columns for critical, even unfavorable, reviews if they reflect honest opinion.

C. D. NELSON

CANADIANA

Indian Lives and Legends, by Mildred Valley Thornton. Mitchell Press, Vancouver, 1966. \$9.50

This book is exactly what the title indicates—stories about individual important Indians who have lived in the past twenty years, and some Indian history, but for practical purposes it is of little use to the schools of British Columbia. For one thing, there is no index, making materials hard to find. Also, although the various brief chapters are grouped according to tribes, the material itself tends to be incoherent. There is no map of localities, which would have proven useful. Even for units dealing with the Indians, there is little factual information, and the language

used is trite and out of date. The price itself makes the book a third purchase, and then only for large libraries where there is a considerable interest in the B.C. Indians.—Betty Holt

... You state "for practical purposes it is of little use to the schools of British Columbia," and go on to fault the book for (a) lack of an index, (b) incoherency of material, (c) absence of a map, (d) lack of factual information, (e) triteness and "out-of-date" language, (f) price.

That is a fairly formidable fault list for a book that every other reviewer commenting to date has called a worth-while contribution to the subject. Most have been more than ordinarily complimentary.

This is a book that does not pretend to be more than its name implies—an artist's contemporary sketch book of reminiscences about experiences and tales told to her while she was painting Indian portraits. As such, it would never be indexed for research purposes. (Pauline Johnson's *Legends of Vancouver* carried no index yet was much used in the school system.)

Incoherency is not noted by the publisher but the work is the product of an avocation of diarizing and is characteristic in that respect. Mrs. Thornton is an artist.

The language is the style of the author and I am not in a position to understand what is meant by "trite and out-of-date." It obviously is reflective of the way Indians spoke, which is with a certain marked simplicity.

I think any bookseller will tell you that what is charged for the book is reasonable in relation to quality with full color plates tipped in by hand operation. In my judgment those who buy the book are likely to find that one day it will be a collector's item.

The manuscript appealed to us as one that deserved to be made available.

Such an unconstructive review as you have written, seeing nothing whatever of value in the book, would scarcely encourage initiative of writer or publisher in the very restricted field of Canadiana publishing in this region...

COMMERCIAL

Building Production Skills, Book 2, by McConnell and Darnell. McGraw-Hill, Toronto, 1965. \$3.20

This is a Canadian book containing a maximum of material and a minimum of instructions. The emphasis is on composing at the typewriter, previews for

timed writings, and tabulation. The reviews at the beginning of each lesson are varied and pertinent.

The two-tone pages seem to add very little to this book, possibly because they are grey on white. At times the print tends to be somewhat greyish, especially in the reproduction of typewritten work.

A very good book for a second-year evening or refresher course.—S. J. Dunster

ENGLISH

The Excitement of Writing. Ed. A. B. Clegg. Chatto and Windus, London, 1964. (Can. Agt. Clarke, Irwin, Toronto) \$2.85

A compact anthology of English children's writing, with comments by their teachers and the editor on the circumstances under which the work was produced. The selections are from Infant, Junior, Modern and Grammar schools. The editor focuses attention on the child's power of expression developed through writing about first-hand experiences. These children have known little formal grammar and English exercises. Spelling, punctuation and grammar are corrected incidentally to the child's use of words and his expression. There is a section on ways to teach spelling and another on the use of external examinations. The ideas in this book are provocative and seem to agree with the philosophy of the present language arts teaching in B.C. A stimulating reference book for teachers at all grade levels.—John R. Allan

Composition: Models and Exercises 10, by Harold Fleming and Allan A. Glatthorn. Harcourt, Brace and World, New York, 1965. (Can. Agt. Longmans, Toronto) Price not given.

The authors state that students learn something of composition from precept, more from example, and most from practice. They present models of writing illustrating specific skills, followed by a discussion of the writer's craft, and then sections entitled 'Now You Try It' using a variety of exercises related to the models and the discussion questions. This is a systematic, traditional approach to teaching paragraph unity, development and coherence; the topic sentence; the skills of descriptive, narrative, expository and persuasive writing; the character sketch, informal essay, book review and short story. The models are selected from the works of Lowell Thomas, William Golding, Edna Ferber, Charles Morton, Pierre Berton, John Steinbeck, James Thurber, and many more. The organization of the text is such that groups of students (or individuals) could proceed independently with this book as a guide.—John R. Allan

Techniques in Writing, Book Three, by Florence Cogens. Holt, Rinehart and Winston, Toronto, 1965. \$3.00

The title page tells us that this is 'a textbook in composition form based on structure for the third and fourth year secondary school.' The arrangement of the chapters shows a new slant on composition

which inverts the usual order of topics, proceeding from the precis and the particular to the expanded or the general, stressing the PLAN throughout. Grammar is interpolated at times as the need arises.

The book is attractive, having an illustrated, appealing cover and clear print with section headings in blue. There are no illustrations. It includes a well-arranged index.

This book could be of great value to the English teacher who likes to try something new.—Betty Holt

NUTRITION

Nutrition in Action, by Ethel Austin Martin. Holt, Rinehart and Winston, Toronto, 1965. \$6.60

This attractive book is easy to read and well indexed. The chapter bibliographies and extended reading list should prove useful to student and teacher alike. However, with so many newly discovered facts and current experiments being carried on in dietetics, it seems strange that a recent publication should consist mainly of the same

data one may find in the present Foods Manual.

As a quick and easy standard guide and reference book, it may have a use in the foods laboratory or in the school library, but it is doubtful that its usefulness would extend further.—Margaret Davidson

READING

New Perspectives in Reading Instruction, by Albert J. Mazurkiewicz. Pitman, London, c1964. (Can Agt. Copp Clark, Toronto) \$8.75

Albert Mazurkiewicz has cleverly prepared this text by selecting a variety of authorities who have concerned themselves with the problem of reading. Mentioning only a few, they are Botel, Betts, Dolch, Gates, Gray, Hildreth, Larrick and Sheldon. It is called 'A Book of Readings' and is just that, containing a wealth of knowledge and fresh ideas useful for any modern classroom. With a paragraph and questions to introduce a critical touch to the reading of each selection, this book would be of equal value as a text for the student-teacher or the classroom teacher. In addition, a supplementary reading list, index and most useful key to leading texts (chapters and pages specified) is included, along with a list of contributors and their universities.

The ideas contained in this fine volume are sound, modern and most acceptable. They can be easily understood and the format and print makes for easy reading. It is a most stimulating storehouse of opinions and research.—Jean G. K. Bailey

SPANISH

Oral Spanish Review, by Dalbor and Sturcken. Holt, Rinehart and Winston, Toronto, 1965. \$7.65

The authors' credo is that the mastery of basic linguistic habits is the foundation of the more advanced areas of composition, stylistics, and the study of literature. Thus they endeavor in this review grammar to teach the basic grammatical and phonological patterns, employing a high-frequency vocabulary, and to provide the oral practice which make them automatic and habitual responses.

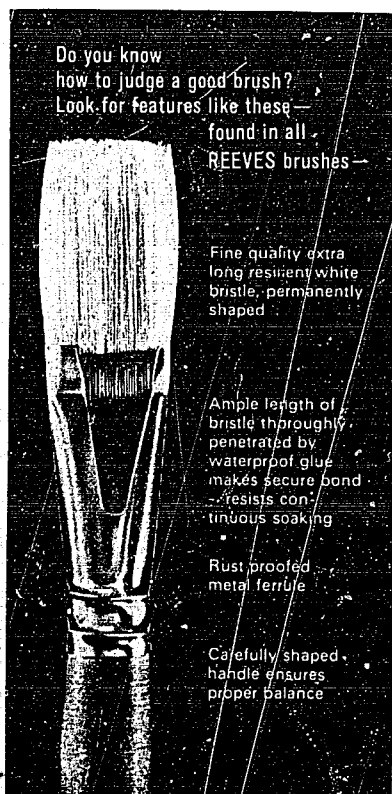
Oral Spanish Review is a thorough presentation of the essential grammar. The approach is descriptive, each detail is explained through an abundance of examples and their analysis. The reading passages consist of highly credible and often amusing dialogs which are accompanied by a free and colloquial English rendition. Here further explanations will have to provide the link between the two languages (something that has been successfully accomplished in *Deutsch fur Amerikaner* with its two-way—from literal to free—rendition).

The drills consist of cued and choice responses, correlation, multiple substitution, expansion, questions and translation. The text is designed to be used with tapes recorded by native speakers. A lab manual, equipped with self-correcting tests, and a Teacher's Manual are provided.

The program is educationally sound and well defined within the framework of an intermediate course for students who will appreciate that their intelligence is not insulted. The text is attractively printed, durably bound, and well indexed.—Conrad Schamberger

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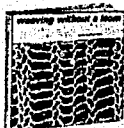
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