



FEBRUARY 1966 VOL. 45—NO. 5



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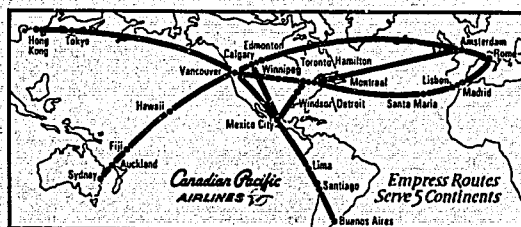
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Cover Picture

This month our cover shows the Fur Brigade on its way south along Lake Okanagan to Fort Vancouver. The painting is one of a series by Bob Banks, commissioned by the B.C. Centennial Committee 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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ELEMENTARY SCHOOL the Forgotten Factor

ISOBEL A. CULL
Chairman, BCTF Curriculum Directors

TO DEVOTE AN ISSUE of this magazine to the position and problems of the elementary school is 'meet and right,' for, of all the phases of public education, the elementary school is the most deprived. It is deprived of its proper share of the education dollar and of real public interest and concern.

The elementary school is really the unknown and forgotten factor in the current efforts to prepare young people to live in the great, new, computerized age. Millions of dollars are being, and will be, spent on education, but it appears that very few of them will go where they will do the greatest good to the greatest number. This ill-considered application of funds is as poor husbandry as to graft a valuable and expensive scion to an unthrifty root stock.

Most countries boast about the large proportion of their national incomes which they are lavishing on education. They are all engaged in a gigantic display of one-upmanship. Education is being equated with national prosperity, and rightly so.

In this country the Economic Council recently advised the federal government that it should increase substantially its financial support of education, particularly at the secondary and post-secondary levels. Moreover, the Bladen Report has recommended that the federal per capita grant to universities be raised to \$5. The throne speech indicated that the government intends to implement in full the recommendations of the Bladen Report. This is welcome news to provincial legislatures, parents, teachers and potential university students, for there is a great need for expansion of facilities in the universities and colleges. However, a rebellious small voice within whispers 'conspicuous spending.'

No one in a prominent position in government, in financial circles or in the business world shows any

awareness of the needs — indeed, even the existence of — the elementary school. Yet it is in this ignored and thirsty desert that the most crucial and fundamental educational processes take place. Here are laid the foundations of lifetime attitudes to learning and to living.

To help a child to know himself, to arouse in him the desire to explore the great caverns of knowledge, to nourish his curiosity and his self-image of a successful learner and to lead him gradually to the enjoyment of learning for its own sake—these are the unique tasks of the elementary school.

If the elementary school is to fulfil its proper role, a genuine revolution must occur. Almost every aspect of elementary education must be changed—the plant, the curriculum, the expectations we hold for the children, evaluation, grouping of children and the instructional methods, the teaching materials and the role of the teacher. Schools must become places where children learn rather than where teachers teach. Each child must be allowed to progress at his own rate along the paths of learning, meeting success as often as possible, and enjoying being a child.

To create these most necessary conditions for the effective education of the young will cost many millions of dollars; but what will be the price of not doing it? Large sums of money will be spent on institutional care and supervision for the mentally ill, the socially disaffected, the damaged personalities with their attendant tragedies and heartbreaks. No one could possibly measure the price of human despair, frustration and unhappiness, or the loss of the many potential contributors to our national growth and economy.

Would not the new and exciting vistas of secondary and post-secondary education beckon more seductively to children if each one emerged from the elementary school 'all systems go'? □

SHOULD A TEACHER TEACH ALL SUBJECTS?

WALTER H. WORTH

IN RECENT YEARS the pursuit of excellence in our educational system has led us to search anew for answers to many age-old problems. Among those problems about which there has been considerable reflection and debate, action and experimentation, is that of *how best to organize an elementary school staff to ensure effective teaching and learning in every aspect of the curriculum.*¹

Several solutions to the problem have been proposed. They include, in addition to a re-affirmation of faith in the self-contained classroom, such things as team teaching, departmentalization, semi-departmentalization, and resident or non-resident special

teachers for special subjects. The latter group of so-called solutions disputes the validity of the key assumption which underlies our traditional staffing pattern; namely, that special benefits accrue from having one teacher teach all of the subjects in the curriculum. Perhaps a brief examination of this assumption in the light of relevant theory, research and practice may offer some clarification of the problem. In an effort to do this, I should like to pose two basic questions and attempt at least partial answers to them.

1. *Can one teacher effectively teach all subjects?*

Our traditional staffing pattern calls for each teacher to plan and conduct the total program for her class. It presumes that the teacher is able to teach equally well most, if not all, of the subjects in the curriculum. It does not recognize, or at least makes no attempt to capitalize upon, any differences in talent among teachers.

Most of B.C.'s elementary teachers have been prepared at the former normal schools or at UBC. They hold a variety of teaching certificates most of which are based upon different preparation programs. At the time of initial certification some lacked matriculation standing, while others already possessed a university degree. Thus, as in the other Canadian provinces, there are marked differences in the pre-service preparation of teachers in B.C.'s elementary schools. Teachers also differ in experience, post-certification training, interests, aptitudes, and abilities. In total, such differences seem to suggest a certain lack of realism in the expectation that the elementary teacher, as now prepared, can teach all subjects equally well.

Some of the newer trends in curriculum also need to be considered when attempting to assess the elementary teacher's ability to teach all subjects.² One of these is the trend toward the reselection of traditional content in terms of the 'structure' of the subject. This increasing emphasis upon structure is already making itself felt in Western Canadian schools in the new elementary mathematics programs, and the emerging projects in elementary science described by Professor Neil M. Purvis elsewhere in this issue. Another is the introduction of new content; namely, instruction in a second language. Such instruction is now being offered at the elementary level in every province of Canada.

Another trend is toward an 'advancement' theory of grade placement as opposed to the 'postponement' theory of the past. A notable illustration is in the field of social studies where it was found, in a project sponsored by the Social Studies Specialist Council of the Alberta Teachers' Association, that fourth grade pupils in the University Elementary School in Edmonton were able to handle with ease map-reading exercises almost identical with those included in the Alberta Grade 9 Departmental examination in social studies in June 1962.

These new trends in content and grade placement,

coupled with the mounting concern for individualizing instruction, strongly suggest that teachers in tomorrow's elementary school will need a more substantial knowledge of the subjects which they teach and the children to whom they are teaching them. Such a requirement will tend to magnify differences among teachers, and make it increasingly difficult for every teacher to teach all subjects well.

2. *Is exposure to a number of teachers detrimental to the elementary school child?*

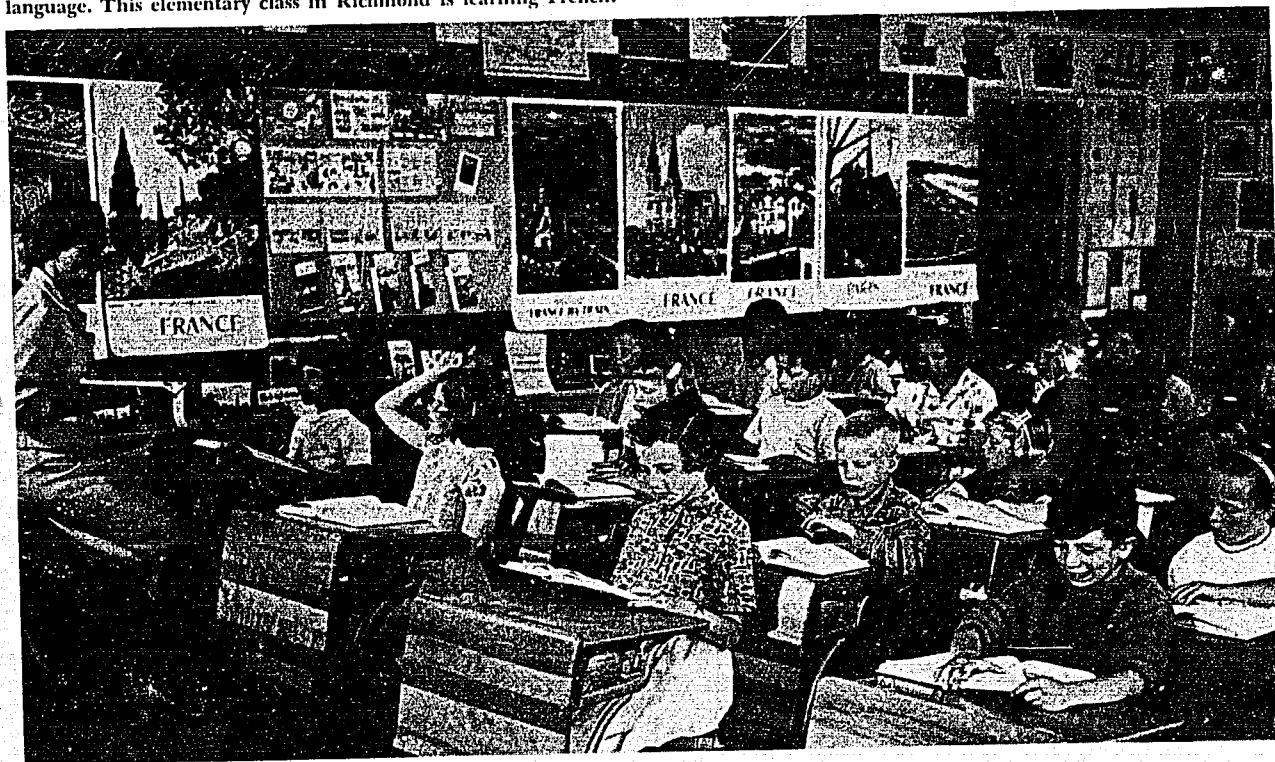
Many elementary school workers tend to deplore the effect upon a student's social-personal development of exposure to a number of teachers, particularly at the primary level. But this criticism is not upheld by recent research. Studies with students in Grades 1 to 5 indicate that having several teachers during the day does not hinder a student's social-personal adjustment.² In fact, there was some evidence that exposure to more than one teacher promoted better adjustment to school. These findings lend some support to the view that variety in instruction may improve motivation and learning, and that multiple adult personality models may aid the child in role identification and socialization.⁴ Moreover, it might be argued that increased opportunities for specialization may attract more men into elementary education and thereby provide boys with a greater number of adult males as role models.

Dr. Worth is Head of the Department of Education, University of Alberta at Edmonton.

Another argument against multiple teachers is that student learning is apt to be fragmented and the effective interrelation or integration of knowledge is less likely to occur.⁵ Obviously, the longer a teacher spends with a child in varied situations the greater are her opportunities to come to know the child well and to help him interrelate his learnings. However, having opportunities is one thing; using these opportunities to advantage is another. If the teacher in the self-contained classroom is lacking in knowledge about child growth and development (and some are), and if the teacher is not a well-educated person (and some are not), then these opportunities are not likely to be capitalized upon. Perhaps a group of teachers working in a type of organization which gives them joint responsibility for observing, evaluating, and guiding each child's behavior and development may perform the integrating function as well as, or better than, a single teacher, simply because they have more resources at their disposal.⁶

One of the supposed advantages of having special teachers for special subjects is that such an arrangement improves student achievement. This belief has been tested at the Grade 5 and 6 levels in mathematics and science.⁷ It was found that children learned science more effectively with special teachers than in a self-contained classroom. However, in the case of

One new trend in curriculum is the introduction of new content, namely, instruction in a second language. This elementary class in Richmond is learning French.



mathematics there was no evidence to indicate that children learned more effectively under one plan or the other. At both grade levels the students expressed a preference for the several-teacher type of organization. These findings do not clearly demonstrate the superiority of special teachers. They strongly suggest, however, that student achievement will not suffer from exposure to more than one teacher.

The findings of a study conducted in Saskatchewan by Taylor are pertinent at this point.⁸ He found that approximately one-third of the elementary teachers of that province had no professional preparation for teaching physical education, and that over one-third of them felt incompetent in teaching most or all of the physical education program. It was also revealed that, except for Grades 1 to 3, both principals and teachers prefer to have physical education taught using a system of departmentalization or semi-departmentalization, or by a special physical education instructor in the school. Similar findings in the field of music in Alberta were noted by Coultas.⁹ Almost half of the elementary teachers in the sample rated themselves below average or poor in their competence for teaching music at their grade level. The preferred plan for instruction in music was to have music taught by a staff music teacher, not by the regular classroom teacher.

In general, evidence on the effect of multiple teachers on the elementary school child is not clear-cut. There is a strong suggestion, however, that the use of multiple teachers at the upper-elementary levels, at least, may be less harmful and more beneficial than was previously supposed.

The partial answers provided for the two questions raised cast some doubt upon the validity of the assumption underlying our traditional pattern of staff utilization that special benefits accrue from having one teacher teaching all of the subjects in the curriculum. Similar or greater benefits may accrue, particularly at the upper-elementary level, from student exposure to a number of teachers. Moreover, there is reason to believe that many teachers and administrators (but few special subject supervisors and teacher educators) discern weaknesses in present staffing arrangements

and are eager to change. Hence, it seems appropriate to urge experimentation with such other patterns of staff utilization as semi-departmentalization or team teaching, which will permit each elementary school child to prosper rather than suffer because of individual differences in teachers, and which will enable every teacher to teach from strength. Alternatively, the less bold may seek the same goals by modifying the traditional staff pattern in accord with the following re-interpretation of the self-contained classroom plan:

"The self-contained classroom plan does not negate the need that children and youth have for experiences with more than one teacher. It is not intended that boys and girls live on a "secluded island" day after day with one teacher. The teacher's resources are supplemented by specialists in the areas in which the students are learning."¹⁰

In judging the efficacy of these newer patterns of staff organization, the following questions may serve as useful guidelines or evaluative criteria:

1. Does the organization support the values upon which the professional staff and parents have agreed?
2. Does the organization facilitate the development of the desired educational program?
3. Does the organization take account of what is known about how children learn best?
4. Does the organization accommodate and foster individuality in children?
5. Does the organization facilitate the best possible learning opportunities for each child?
6. Does the organization contribute to continuity in learning experiences?
7. Does the organization encourage optimum use of available resources?
8. Does the organization accommodate and utilize differences in teacher talents?
9. Does the organization provide responsible freedom for each teacher?
10. Does the organization lend itself to modification in accord with changing social conditions and new developments in education? □

References available on request.

COVER STORY

THE PORT FOR THE HUGE western fur empire was Fort Vancouver. If you look at a map you will see that it is a long trip from Fort Kamloops south through the Okanagan to Fort Vancouver on the Columbia River. However, this was the route by which the furs were transported annually by pack trains of 200 hor-

ses to the coast and waiting ships.

In our cover picture the artist has shown the New Caledonia brigade following the pack train beside beautiful Okanagan Lake. The Chief Factor can be distinguished at the head of the column—he is the man wearing a beaver hat.

This overland route was used from the time Fort Vancouver was established in 1825 until about the time of the Oregon Treaty (1846). Today, people traveling between Penticton and Kelowna may see at Westbank a cairn marking the spot where the traders paused on their way south. □

LET'S DO AWAY WITH THE ELEMENTARY SCHOOL

THE ELEMENTARY SCHOOL has become too large and too cumbersome. It covers too wide a range of years. Pupils enter elementary school in infancy and are often adolescents by the time they leave for secondary school. We have an 8-3-2 system now, and that eight-year section is surely too big.

Was it really planned that the elementary school should be an eight-year school? To provide adequate facilities, the eight-year elementary school has to enroll more than 500 pupils. Schools of this size can have suitable kindergarten quarters, a library, a lunchroom, and perhaps even some special provision for the art, music, and science requirements that have become near-necessities for the upper grades. Allowance must be made for various sizes of equipment and pupil accommodation to suit the great physical range of elementary school pupils between age five and age 13 or, in some cases, age 15.

To provide even a minimum of these things requires a large plant. The school becomes an institution which tends to be unwieldy in operation and an inappropriate environment for young children. It would be advantageous in many ways to split up the elementary years into two major groupings—perhaps, like this:

1. Make a separate primary school of what was traditionally kindergarten and Grades 1 to 3, and which is now becoming a non-graded unit. Such schools could be designed to an appropriate scale for this age group. They could be small, neighborhood schools, with preferably not more than 10 divisions. Staffed by specialists in teaching primary school age pupils, they would be essentially basic skills schools with an informal, joyful atmosphere.

Increasingly, it is being claimed that the primary

years are the critical ones for the development of the child's potentialities. If so, on this count alone, specially designed environments for these children should be provided; for if the proponents of the 'critical years' thesis are correct, it is far more important that such schools be provided, than it is even for vocational schools to be built.

2. An intermediate school would comprise Grades 4 to 7. Such a school could be multi-functional, in that it could have consolidating and exploratory purposes. It could be a fairly large school, enrolling pupils from two or three of the neighborhood primary schools. It would need to have a good library and special science, art, and physical education facilities. Some specialization could occur, with opportunities for team teaching, large class instruction, and special programming. Intermediate school teachers would probably be required to be generalists in the language arts and arithmetic, and specialists in one or two of the other subjects: art, music, social studies, science, physical education.

Both schools would be organized to provide continuous progress for all pupils, but they would not provide the same facilities and would not have the same immediate objectives.

To achieve this reorganization our present elementary schools have to go. This should not be cause for sorrow, however, because they have to undergo far-reaching changes during the next few years anyway. The stresses will probably be alleviated greatly if we make the fundamental reorganization suggested here. □

The author is Supervisor of Elementary Instruction in Powell River School District.

WHY DO WE IGNORE LITERATURE IN THE INTERMEDIATE GRADES?

A NEW SLANT is urgently needed for programs in English for the intermediate grades—something like those which have brought mathematics and science into line with current developments in the wider world outside education. Our present English courses are one-sided; language arts might better be called language 'activities.' We take literature so much for granted that it is largely ignored or, at best, so inadequately handled that intermediate students are not given reasonable prospects of success in English in secondary grades. This article suggests lines along which re-thinking might be profitable.

Under a language 'arts' philosophy the emphasis is placed on effective communication so that reading, writing and speaking may be achieved with a degree of fluency and clarity. Often, in the attempt to attain a reasonable literacy, undue stress on the three R's becomes a rather sterile process of satisfying mechanical needs. It is, for instance, much easier to find out Johnny's ability in reading and spelling than to discover what he really understands about the relevant extracts from *Proud Procession* or *Beckoning Trails*. It is certainly less of a problem, for the purposes of promotion, to judge his linguistic attainments than it is to assess him satisfactorily for 'literature.' Hence there are pressures which effectively preclude a proper treatment of what we take very much for granted as 'our literary heritage.'

The relative relegation of literature in intermediate grades has a two-fold connection with education at higher levels: (1) in secondary schools the lack of a basic understanding of literary concerns is often held

to be partly due to inherent weaknesses in elementary curricula; (2) at the university level the study of children's literature is not given parity of esteem with courses in, say, Defoe or Swift (although the same works may be studied with much the same attention and scholarship).

More to our immediate purposes are several studies which indicate other reasons for the neglect of literature. Norvell, in a comprehensive survey of children's reading interests,¹ strongly suggests that expert opinion is not necessarily the best measure of such interests, and does not consistently provide the sort of guidance that would enable teachers to exploit such interests to the best advantage in the classroom. For instance, he cites more than 60 poems recommended for children which students often rate quite low. It should be self-evident that adult standards in literature are not to be equated with those held by children, yet we often find fulsome praise given to stories or poems which children view only with apathy or dislike. (Do your students *really* go for Walter de la Mare, or Alice?)

In a survey of Canadian children's voluntary reading interests in 1948 Minkler² thought much the same as Norvell. Farther afield, Brown³ discovered there are large gaps in our understanding of the total effects of literature on children, both as individuals and as group members. He sadly concluded his study with the reflection that research in literature over a three-year period held little of significance for his purposes.

Eisenman⁴ found that many teachers do not appreciate the contribution literature can make to the whole

range of elementary studies. The most disturbing aspect of her research showed that many teachers do not even read completely through one children's book in the course of the year's work—despite their evident concern to be up-to-date through workshops and similar activities. The pressures mentioned above apparently do not allow time for becoming acquainted with children's interests.

Charlotte Huck⁵ wants to bring literature into every aspect of the elementary curriculum, and stresses that the *idea* of practical commitment should receive much more than a mere theoretical appreciation. She further recommends that all teachers read one new book a month—but it is difficult to see how this admirable aim can be realized under a language 'activities' philosophy whereby the teacher of English spends overmuch time in setting and marking seatwork. Many teachers would agree with Sabatini⁶ that listening to good stories is a pleasure of which children never tire, but how often is this done at an intermediate level as part of a well-programmed session? How often is time afforded for relishing striking imagery or phrases, or for more than a superficial reading of enjoyable stories?

We do not make anything like enough use of paperbacks. Here is one aspect of technology we could exploit to the benefit of both teachers and students, yet we do almost nothing about it in schools—nothing, that is, to compete with the exotic literature available on the pulp stands. The popularity of book clubs, with

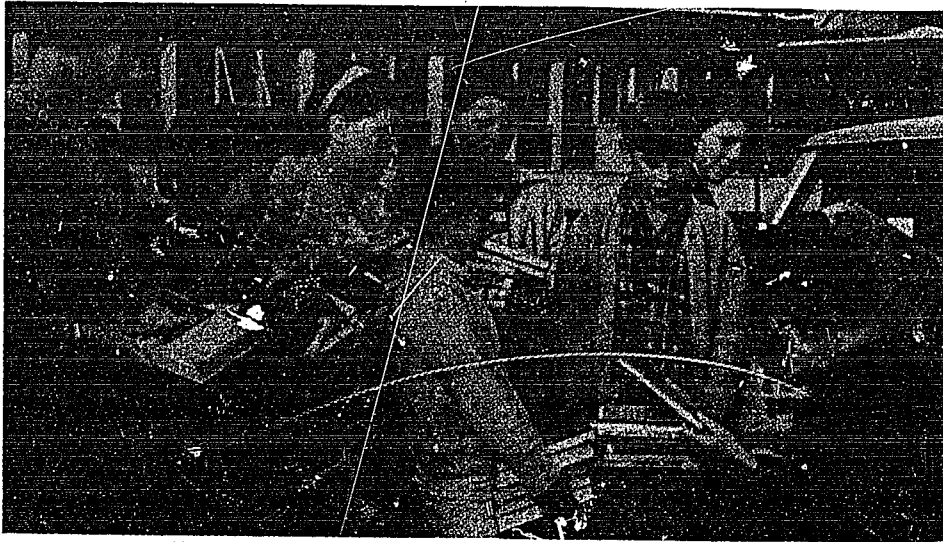
The author taught at Clearwater Elementary-Secondary School last year. He is now attending UBC.

their regular, eagerly-awaited shipments, is in itself sufficient proof of an avenue which we neglect. Some teachers think that paperbacks could take the place of hard-cover textbooks and certainly, at 40c or so a copy, the idea is worth investigating. For one thing, the present costs incurred in rebinding tattered texts would be reduced to a minimum. Moreover we might eventually be able to do away with anthologies which, not altogether cynically, have been called 'little pieces of great writers' and 'collections of unrelated snippets.' To be sure, some authorities hold that young children prefer short extracts, yet Norvell and others have shown that long, complete stories receive pretty well the same attention as 'bits.'

Hipkin⁷ demonstrated that paperbacks can offer a wide selection of reading matter at low cost. With the aim of establishing literature as the heart of English studies, this author set up a separate library, of which paperbacks formed the larger part. By this means he was able to offer an immense range of reading compared to the usual provision through hard-cover texts. At the same time, through an exploration of reading interests of his students, he found it possible to encourage a sensible use of the main library facilities, mainly because the students felt that something positive was being done to meet their points of view. Foreseeing the need for running repairs, he trained some of the group to keep the books in circula-

Teachers and librarians can obtain paperbacks similar to these easily and inexpensively. Through careful selection, they can offer an immense range of reading experiences to their pupils.





The interest in reading aroused by the availability in schools of good literature in paperback form will, in all likelihood, encourage children to patronize bookmobiles and libraries in their out-of-school hours.

tion—little trouble since the books were selected largely because of student popularity. Copies were provided on the basis of favor, combined with some direction from the author as the need became evident. At an age-range comparable with our Grades 5 to 7 copies were, for example: *The Diary of Anne Frank*-12; *The Old Man and the Sea*-6; *King Arthur*-3; *King Solomon's Mines*-2 (No book was represented less than twice.) Hipkin found that the standard of written work improved noticeably, book-loans rose steadily, and apathy turned to interest.

It is interesting to study the contents and indexes of current works on elementary curricula. One I took at random showed the following allocation by subjects:

social studies	39½ pages
arithmetic	33 pages
art and music	24 pages
language arts	39½ pages
health, safety, PE	31 pages
literature	½ page

This proportion of reference is probably fairly representative, and agrees with the view that our scales of value in education reflect those of the technologically-centered world, where the material results of research are valued more highly than the kind of thinking which tends to promote the civilized roundedness of the individual. Why the concern for the physical well-being of students should rate 62 times as highly as our 'literary heritage' is a problem in itself.

Because the language arts are covered adequately, one might suppose that literature is taken care of. Nothing could be less true, for although language and literature are intimately related, they are *not* synonymous. It is a mistake to believe that the reading habit, however well inculcated, brings any real power of discrimination in its train, for an oft-trod path does not necessarily lead to a desirable destination; nor is an unregulated diet of print more beneficial to the mind

than one of pop and peanuts is to the body. Many students show a degree of habitude in reading—sufficient to pass examinations, at any rate—yet they leave school with the firmly-stated intention of never hitting the books any more. Why? How do we ensure that students retain the love of reading we are fairly sure they have at the primary level? In an article attempting to forecast future trends Delacato⁸ assumes that literature will more and more be written by people having a thorough insight into children's needs. On the other hand, some educators are attempting to meet this problem by putting literature and creative writing together at elementary levels.

Whatever we do to make literature a vital part of every child's experience, we certainly cannot ensure real progress without the full use of school libraries. In B.C. we have seen something of a recent revolution in library services. Gone (we hope) are the days when dog-eared relics formed the major part of 'library' books. Now that we are about to achieve at last proper standards of library provision, it will become possible to discount one possible cause of failure regarding poor reading habits. We are fast moving toward the time when literature courses and work in the library will be related naturally and conveniently, so that studies in the one will enhance the value of work in the other. Welcome indications of positive thinking are the revised programs in intermediate grade English now being issued by the Department. All intermediate grade teachers should be afforded opportunities to utilize the excellent advice on the approach to literature study given in the program for Grade 4.

In the last resort the only test of our work with literature in schools lies in the kind of reading that students do after leaving. Only when literature has its rightful place in the intermediate curricula and practices will such a test produce positive results. □

THREE HUNDRED YEARS AGO the great Czech educator, Comenius, proposed that pupils be grouped according to their stage of progress and taught in 'grades.' This is perhaps the earliest reference we have to grading. Schoolmasters, however, did not follow Comenius' advice and continued to conduct their classes on an individual learning basis up, almost, to the present day.

Prussian schools, however, were making use of the grading principle by the early 19th century, and it was these schools that so impressed the great American educator, Horace Mann, when he saw them in 1843. Grading was also used in the hundreds of monitorial schools which the churches organized in England in the early 19th century. These schools tried to bring some measure of literacy to the masses of working-class children in the great factory towns before England had a state school system. During the 1850's grading was tried in North America and by 1860 the graded system was widespread. 'By 1870,' as one writer described it, 'the pendulum had swung from no system to nothing but system.'¹

Prior to grading, schoolmasters had included in their classrooms children of various ages and different stages of advancement. Such children were usually assigned learning tasks at the beginning of school in the morning and the remainder of the school day was spent in having each child come up to the teacher and give a recitation (rote or written) of his assignment. This was the well-known 'recitation method' of the pioneer schoolmaster. This system, had it been granted the benefit of good teachers and good pedagogy, might have had much to commend it, at least from the standpoint of differentiation of instruction. But its fault was largely lack of instruction—simply rote learning. Educational reformers of the day believed they could increase what they liked to call 'teaching power' (i.e., the effectiveness of the teacher) by organizing children on the basis of grades. These corresponded to a year's work, and were often interpreted in practice as consulting a textbook or reader especially written for an age level. In fact, the earliest grades in Ontario and B.C. were named after the readers—e.g., the 'Senior Fourth' Reader (now Grade 8).

The grading system certainly made the teacher's work more interesting and school, in many ways, more pleasant to teacher and child. The teacher could now concentrate on one group and give this age level his undivided attention. He had time to present his lessons well, making use of visual aids, etc.

The system had drawbacks, however. No Grade 5 class for example, contained average Grade 5 children in all subjects; there was a wide spread in reading ability, for example, of about four grades in any classroom. Moreover, if a child failed to pass the examinations at the end of the year or to measure up to the standard required for promotion, he had to repeat a year's work from the beginning. To the slow learner, nothing could be better calculated to under-

mine any enthusiasm he might possibly have acquired for learning.

Quite early in the century, therefore, there were attempts to modify what some called 'the lock-step' grade system. W. T. Harris was the earliest educational leader to break up grades into smaller intervals in his school system of St. Louis in 1868. The Winnetka and Dalton Plans for individualizing instruction were widely publicized in the 1920's. They organized subjects into neat packets of units and permitted the student to advance from one unit to the next at his own rate of accomplishment.

The idea of organizing schools on a system of continuous progress according to the child's own rate of advancement was experimented with in Hamilton, Ontario, as early as 1939. The result there was the Hamilton 'Unit System.' Milwaukee established its level system in 1942 and since then this system has spread to several other communities in Wisconsin. In 1959 Goodlad and Anderson reported that 44 communities in the U.S.A. had established non-graded programs.²

In B.C. the Department of Education first enunciated a policy on continuous promotion in 1948 after discussion at an inspectors' conference of that year. The Department's policy, as then stated, was that 'grade names but not grade standards would tend to disappear' and that the six grades of elementary school be divided into two 'Divisions' of three grades each. Children should then be grouped by ability and should proceed through a Division in two years for the bright child, three for the average and four for the slower learner.

It was easier to state such a policy than to persuade superintendents and principals to implement it in their

F. HENRY JOHNSON

THE LEVEL SYSTEM IN THE ELEMENTARY SCHOOL

Dr. Johnson is Director of the Elementary Division, Faculty of Education, UBC.

schools. Except for a few schools in the interior, e.g., in Vernon, little was done until recently to break the old grade system. Currently more interest is being shown in experimenting with some form of non-grading. Chilliwack tried out its level system in 1960. Vancouver this past year has been experimenting with a level system in the Henderson Elementary School.

We might consider in summary some of the advantages which are claimed for these systems and also some of their limitations.

Advantages Claimed for the Level System

1. Because promotion occurs at shorter intervals (i.e., semi-annually or quarterly), the child is stimulated more frequently to his best efforts.

2. Since each child is in a more homogeneous ability group than a grade, a bright pupil is motivated by the competition of his peers and a slower one is not frustrated by unfair competition. 'When a school program provides identical learning tasks for all it dooms some children to boredom and others to frustration. The thought processes that might otherwise function smoothly become ensnared in emotional dislocations. The elementary school, then, must pose learning tasks that challenge all children to think and to think at levels of increasing complexity.'³

3. If a child is not promoted in a graded system, he wastes a year by repeating the whole grade. In a level system he either repeats a quarter to one-half of the year or simply carries on next year from whatever level he has attained.

4. Pupil-teacher relations should be improved because of the reduced frustration. 'The children are happier and more interested,' Miss Florence Kelly, who initiated and directed Milwaukee's level system, told me.

5. According to John Van Loon, Superintendent of Schools in Hamilton, 'Teachers' interest in the fundamentals of teaching is increased, making a more adaptable staff. Better and more varied techniques of teaching are encouraged.'⁴

6. Teaching becomes a little more 'child-centered.' 'The teacher need not worry about encroaching on the work of a higher grade. Now he may select a range of books without concern for their grade level. Now he may work without the crippling fear of having to fail all children who do not come up to a grade standard at the end of the year. Now he need not worry about the fact that Tommy's reading is so far in advance of his arithmetic. Now he has a new set of responsibilities too. Now he must collect and analyze the kinds of data that will permit the comparison of a child's progress with the child's ability and thus determine the adequacy of progress.'⁵

7. A child's rate of progress is not one set rate all through school but a rather irregular one, slowing here and spurring there. The level system is well adapted

to this factor.

8. It is better for the slow learner to be permitted to go ahead even at a slower than normal pace than to fail and have to repeat work. 'Non-promoted children frequently suffer socially and emotionally. Achievement standards for all children tend to be lowered when non-promotion rates are high.'⁶

9. Teacher-cycling where used as a feature of the level system, has the advantage of getting teachers out of a one-grade rut. Miss Florence Kelly of Milwaukee states that it develops a greater sensitivity in the teacher to each child, through working with him over a longer period.

10. 'In conclusion, it may be stated that the Unit System of Promotion assures the most economical use of each pupil's time and of the ratepayer's money.'⁷

Limitations of the Level System

1. It presents more organizational difficulties to a principal and staff than does a simple grading system. Hence administrators have been rather timid in initiating it in their schools.

2. It may not assure more acceleration unless the teachers are convinced that acceleration is a good thing. Superintendent F. P. Levirs believes that 'The principle of continuous progress should apply equally to the bright and the slow.'⁸ However, the results do not show equal accelerations with retardations. The latter are more common. It is interesting to note the recent recommendation of the Chilliwack Committee on the Level System that 'acceleration, if any, should not begin until Grade 3 but that deceleration could begin in Grade 1.'

3. The chief difficulty in the level or unit system has been the identification of pupils who should be accelerated. Teachers must take into consideration not just IQ or achievement but also health, social maturity, emotional problems and parents.

4. The experience in Chilliwack seems to show that organization for a level system presents more difficulties in the small rural school. It will be interesting to see how successful it is on a province-wide basis in Saskatchewan with its many small rural schools. The areas where it seems to have had greatest success have been larger cities (Hamilton, Milwaukee).

5. The level system may require slightly more staff to achieve the necessary flexibility.

6. The non-graded system is simply a system of organization. It does not attempt to do anything more. It is therefore, as Goodlad admits, 'no panacea for problems of curriculum and instruction.'

Obviously the traditional grading system is the easiest form of organization to administer; yet the path to progress is seldom the smoother way. An understanding of the difficulties ahead, and an appreciation of the advantages to be gained from a level system should serve to motivate good administrators. □

References on request.

A Handwriting Renaissance Could Revitalize Learning.

SAM BLACK

OUR TIMES HAVE BEEN NAMED variously the atomic age, the computer and electronic era, the post-sputnik world, the century of the new machine man and other apt captions describing our bursting technology. And, for the most part, all are true and suitably descriptive.

In this mechanical world, fantastic volumes of communications are handled by automatic devices of all kinds: machines which beam, duplicate, transmit, calculate and memorize; purring, clicking, punching, printing and translating messages all across the world, or just across the street. But in the midst of all this, in the matter of the most essential form of communication—simple person-to-person exchange in handwriting—we are in the age of darkness.

This is the age of the scratch and the scrawl, and most of it illegible at that. The following story appeared recently in the evening newspaper column of one of Vancouver's local funnymen, Jack Wasserman. 'A local doctor received a note from his son's Grade 4 teacher: "Billy's writing is illegible. I suggest he see a doctor to determine if he has any physical problem." Billy's father wrote back: "I am a doctor and I know there is nothing wrong with Billy that would affect his handwriting." Back came another note from the teacher: "I am sorry but I cannot read your handwriting. Please phone me."

It needs little imagination to visualize the mountains of undelivered mail that must gather in post offices, especially around the turn of the year. Bad handwriting must cost governments and industry millions of dollars in waste and loss through illegible instructions and careless and confused orders. Moreover, bad handwriting has cost and lost many an applicant a good job. This brief report, which appeared in a medical journal a few years ago, points a somewhat gruesome lesson: 'A doctor's writing was so bad that the word "little" was mistaken for "middle" and a patient had his wrong finger amputated.'

There is a growing and smouldering dissatisfaction. The author is Professor of Art in the Faculty of Education, UBC.

with the bad manners of bad handwriting. Out of school, there are mounting complaints from the public that teachers are not teaching handwriting adequately or adequate handwriting—which is generally true. In school, teachers scratch barely legible footnotes in red ink, complaining of the quality of the writing in workbooks.

Even the 1960, now fortunately out of print, *Royal Commission Report on Education in the Province of British Columbia*, showed unusual soundness of judgment, and some degree of perception, when it recommended that the present methods of writing be reconsidered in the light of other more recent methods of teaching writing. This recommendation grew from a beautifully understated observation that: 'pupils' writing today was not of a very high standard.' The Commission was, however, more timid in the case of handwriting than it was in its dealing with other areas of learning, notably the arts. No firm pronouncement as to the best style to adopt was made. Perhaps this was a happy omission for the school children of B.C. because, while it is possible to banish the arts, it is impossible to eliminate handwriting.

Most children in the first and second grades are taught a print script of the 'circle and straight line,' or 'ball and stick' variety and are then required to change to a cursive style, reminiscent of 'copperplate' and based on subsequent modifications of that hand. Among the characteristics of this hand are: a baseline and hair-stroke are used as a starting point for letters, the pen is not lifted from the paper and, to ensure continuous flow—mistaken for rhythm—loops are added to both the ascenders and descenders. Varying pen pressures may be used to achieve shading, and capitals are ornate, flamboyant, and unnecessarily complicated.

The use of print script in the early years and the inclination toward manuscript for general use, suggested in the BCTR Research Committee's 1965 report on handwriting are, without doubt, sincere efforts; on the one hand, an attempt to teach beginners whole-

The handwriting of a 9-year-old girl.

Horses

Everyone may not know what breaking in is, therefore I will describe it. It means to teach a horse to wear a saddle and bridle and to carry on its back a man, woman or child; to go just the way they wish and to go quietly.

Handwriting of a boy age 14 years.

In the beginning God created the heaven and the earth. And the earth was without form and void; and darkness was upon the face of the deep. And the spirit of God moved upon the face of the waters. And God said let there be light: and there was light. And God saw the light, that it was good: and God divided the light from the darkness. And God called the light Day, and the darkness he

some basic letter forms and, on the other, a serious and well-meaning effort to halt, and even reverse, the present trend of illegibility. But print script or manuscript is not handwriting. It is print. It is not a running hand, and never can be. As for the 'looped' hand later taught, much and most of it is alien to a child's natural wrist and arm movements and imposes unnecessary strain in learning its complicated forms. Under the pressures and tensions of daily use it deteriorates rapidly and becomes an illegible scrawl, especially when written quickly. Anyone who has attempted to read student examination papers will affirm this point. Movements become exaggerated, loops change to large or small, open or closed, and the whole becomes rather graceless in appearance. The result is a hybrid hodgepodge, unsatisfactory to the writer and irritating to those persistent enough to attempt to read.

The essentials of good handwriting are legibility, reasonable speed of performance and good appearance, in that order. The handwriting style used in schools in the latter half of the 20th century must be easy to teach, easy to learn and simple enough in form to be readily acquired by every pupil, whatever his abilities. For legibility, letters must be simple in structure and simple to make. Each must be distinctive and not capable of being confused with others. Legibility is also best maintained at speed when the letter forms and their combination use an economy of means. Beauty is achieved when handwriting is balanced, harmonious in character, economical in structure and uncluttered with the affectation of flourishes. A style that eliminates the change from print-script to cursive, with the inevitable problems and difficulties this entails, will ensure greater consistency of handwriting and avoid confusion.

Schools should teach a handwriting style capable of

being developed by children throughout their school life.

The italic hand, without doubt, is the most suitable style to meet this need. Italic is not a new style dreamed up for the sake of change. It has its roots back in history. In fact, copperplate and its subsequent modifications in use today are degenerate descendants of the original pure italic. This is the reason for the word 'renaissance' in the title of this article. The movement for the adoption of italic is not advocating a new or a foreign hand. All our writing is 'Italian'; what is being sought is a return to, or a rebirth of, a pure, uncorrupted form of it.

I do not intend to expand here on methods of teaching and practising the italic hand. Such details are best left to other articles and publications specifically aimed at instruction. For the present, let us catalog some of the advantages of italic handwriting. It remains legible when written quickly. It is based on simple, logical and distinct pen forms, free from loops and unnecessary joins. With the simplicity of its basic letter forms it can be learned readily and easily by all. There is no shock of change from stiff print-script to rhythmic cursive. Reading is made easier because italic writing and the printed word have a close affinity. Italic is capable of development and refinement throughout school life and beyond. The overall appearance of the written page is neat, pleasant and attractive.

Student response to learning italic has been invariably one of enthusiasm and interest. Indeed, in many instances the content and substance of the written matter has greatly expanded and improved.

Contrary to the conclusion noted by the BCIF Research Committee in its 1965 survey of research on handwriting, in which it states that the committee lacks research evidence to support a form of italic writing,

Powell River Experiment with Italic Writing

Powell River began italic writing at Cranberry Lake School in January 1964 with a group of Grade 2 pupils and a group of intermediate pupils who had chronic writing difficulties.

The two main reasons for introducing italic were: (1) to eliminate difficulties inherent in the changeover from 'printing' to MacLean-style cursive, and (2) to provide a simple alternative hand for those pupils in Grades 5 and 6 who, despite remedial teaching and extra writing practice, still had chronic writing problems. The latter pupils had nothing to lose in making a change to any simpler form.

The hand chosen was a modified form of italic script which had been carefully researched and given extensive trial over a period of 10 years in Scotland. The style appeared to offer a

solution to both problems and was readily available in book form for both pupil and teacher use. (Inglis & Gibson, The Teaching of Handwriting, Thomas Nelson, Toronto.)

Results were immediate and dramatic, indicating that the involvement of more pupils was warranted. Although it is difficult to assess the part played by the Hawthorne effect, a marked improvement in pupils' writing was noted, and a smooth transition from the primary 'printing' to the italic script was apparent. There was no loss of speed. In fact, many slow writers were able to write more quickly.

Encouraging results have caused the experiment to be continued voluntarily, and its scope to be widened to include most schools in the district.

the advantages listed above are the result of many years of careful, expert teaching and thorough scientific research.

Those unwilling to acknowledge the worth and suitability of the italic hand, declare it is difficult to read. To this the best reply is given by Robert Bridges, quoted by Wilfred Blunt in his admirable little booklet, *Handwriting*. 'Most people read most easily what they are most accustomed to, and, since the ordinary conditions accustom them to bad writing, they will often consider it more legible than good writing.'

The growing dissatisfaction with bad and illegible handwriting, referred to earlier, is finding expression in a spreading and positive interest in teaching and in learning italic. The largest experiment now under way is in School District 47 (Powell River). There, superintendents, principals and teachers are co-operating on a handwriting scheme that could grow, in influence, far beyond the borders of B.C. Apart from the improvements in handwriting by pupils, the blackboards and teachers' day books are a joy to behold.

Others are also engaged in research and practice of italic, or hands based on italic forms; notably C. Cuthbert, now District Superintendent of Schools for Nelson and Slocan, who, with Mrs. Jean Riedl, did such excellent pioneer work at the Dawson Creek Elementary School (see *The B.C. Teacher*, February 1959) and Lord Roberts Elementary School in Vancouver, where worthy beginnings are being made. In various parts of B.C. teachers are working quietly and patiently in isolation and without much support. There are many more whose inclination and beliefs,

though strong, could transform the handwriting of their schools, if their case were strengthened by official approval.

In the fall of 1965, UBC's Extension Department offered a course in italic handwriting—probably the first of its kind in B.C. The response was beyond expectations and the students attending the classes represented a large cross-section of the community.

The experiments in the use of the Initial Teaching Alphabet, while linked with print script, readily suit the adoption of italic. Sir James Pitman has himself stated: 'I am all for i.t.a. children writing i.t.a. in italic from the beginning: they will then write with an italic hand for life, and will find it very easy to learn the upper-case characters which will then be necessary.'

Handwriting may not be the most important subject on the school curriculum, but it is one of the tools of learning and one of the vehicles of communication. Like most tools and vehicles, it should be designed to be best suited to the job it is required to do, in the time it is required to do it, and it should carry out its task with efficiency and economy.

The renaissance in italic handwriting, which has just begun, will establish a consistent method, suited to our times and allowing for the growth of individuality, once the basic forms are mastered. The italic hand harnesses the child's natural sense of rhythm and lays the foundations for a good hand that will be a source of pleasure to execute and a delight to read. This hand, deeply rooted in Western culture, has about it an inevitability and simplicity and legibility that are not only natural, but timeless. □

Samples of adult
writing taken from
actual correspondence.

*The passage is from one of many war time speeches
by the late Sir Winston Churchill whom the State
honoured recently by a full State funeral.*

With all best wishes for 63.

*Your exhibition promises to be a most
exciting affair,*

The value of teaching by TV is being examined through experiments like this one in Langley.



THE COMING REVOLUTION IN ELEMENTARY EDUCATION

THERE HAS BEEN much loose talk about many things in elementary education. Most statements which gain recognition, and are heralded as deep, perceptive pronouncements on the ills of modern education, are really just negative, surface criticism. The out-of-context statement, so frequently isolated and glibly repeated as a sagacious insight into the educational dilemma, serves only to cloud the issue and discredit the honest attempts of educators in the elementary school.

As educators, let's be the first to admit that there may be other and better ways of performing our task. Let's keep an open mind and a questing attitude toward change and innovation, but let us also remember that change for the sake of change is seldom justified and rarely successful.

At this point you have probably typed me as a dyed-in-the-wool traditionalist. If so, your assessment is entirely wrong. My work in education is research; I

am an educational theorist, charged with the tasks of developing concepts and of finding innovators willing to apply these concepts in the schools—to test the theory in practice. By offering a coalescence of several theoretical approaches to innovations in elementary education, I am attempting to suggest a practical approach to the modernization of education.

Some things we can change; these are the variables in our educational system. Other things we cannot change; these are the constants in the system. The key is to recognize and adapt to the constants and to experiment with the variables. What, then, are these variables and these constants?

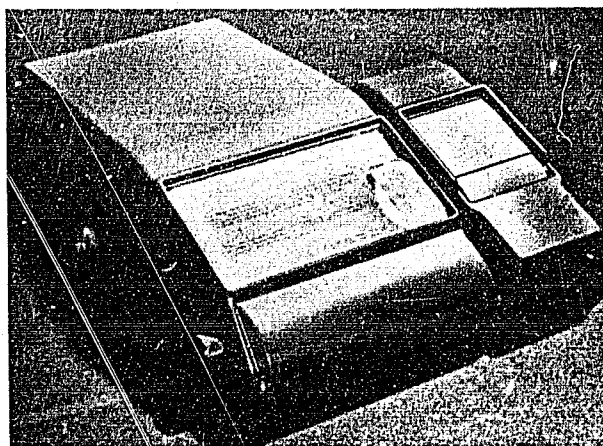
Among the variables, we should include the aims of elementary education, the organization of pupils for instruction and learning, the organization of teachers for instructing and the styles and methods of teaching.

The writer is Director of the Elementary School Program Commission for the Calgary School Board.

Curriculum, too, is a variable, as are school facilities, school services, technological aids and administrative services. All of these are amenable to change and experimentation.

A little facetiously I might suggest that children are constants in education. However, between 1950 and 1959 the world total in education rose from 257 million to 414 million—an increase of about 6% a year, compared to a world population growth of about 4% a year. About one-fifth of the world's population is now either teaching or being taught.² Perhaps the statement isn't at all facetious when we consider that many of the problems we face in education can be related to this staggering rate of growth.

Individual differences among children is a constant and one which we must adjust many or most of our variables to accommodate. The development of attempts at adjustment to this constant has occupied the minds of leading educators for the past century.



The Koncept-o-graph is one kind of teaching machine now available.

Shane¹ identified 32 grouping plans which have been initiated, discarded, modified, or gradually accepted on a widespread scale. All of these were attempts to adjust a lock-step grading system to the individual differences which are constant in children.

And speaking of individual differences, why do we recognize this as a constant in children and fail to recognize the same phenomenon in teachers? Are all teachers, by virtue of a certificate, necessarily good teachers? Are all elementary teachers specialists in all subject fields? Why is an elementary teacher committed to being a jack-of-all trades but specialist in none? I believe that many a mediocre teacher, if given the opportunity to specialize, could become an inspiring teacher in the area of her choice.

Societal expectations for education are so slow to change that they may be regarded as constants. Introduce a major change in your own classroom or school and you will find the truth of this statement. How

many parents regard with suspicion and open opposition any departure from the traditional—the traditional being what they experienced when they went to school?

A final constant is open to question. The egg-crate, box-like schools which we have as standards of yesterday's educational system, are constants in that they are not likely to be torn down and replaced by modern structures of fluidity and flexibility. However, a degree of variability can be introduced in an up-grading construction program involving these older buildings. New buildings certainly should not be regarded as constants, unless, of course, we persist in duplicating the egg-crate structure which has been the pattern for school architecture for so many years. When new ways of organizing pupils, teachers, and curriculum are developed, new, functional schools will be erected to meet these patterns of teaching.

And now the variables. What changes should be introduced among the variables to improve the quality of education?

Fluid and Flexible Organization is Needed

Let us look first at pupils, and possible ways of reorganizing them for instruction and learning. The ideal arrangement, of course, would be the tutorial situation—one pupil, one teacher. Here there would be no failure, for the child would progress at his own rate, moving slowly when understanding is difficult, and swiftly through work that comes easily. The child would always be working just at his point of error, the point at which maximum learning takes place. In a mass public-education system, however, the tutorial situation is not possible. We must therefore find ways to handle masses of children in a fluid and flexible organization which recognizes individual differences in children.

The rigid, lock-step grade structure is partially broken when we use ability-grouping of children within the classroom. This is a very minor adjustment, however, and is not much more than lip service to the recognition of individual differences. Some school systems have added to this a streaming system whereby children of high academic ability follow an accelerated program, and children of low academic ability follow a decelerated program from the normal or average program. This is another step along the way in the recognition of differences but it fails to recognize that differences occur within children in various subject areas as well as among children in general academic ability.

Another step is to attack the rigidity of the grade structure by the introduction of levels within the grade. This fragmentation of the grade structure really serves the purpose of lessening the amount of repetition a child must go through in the event of failure. That is, of course, if progress through each of the levels is maintained on a solid front. There is another modification of this level plan which does



"It's for my teaching machine."

offer more than mere fragmentation of the graded structure. This is to permit children to advance on a broken front, where a child could conceivably be working in level 12 in mathematics, level 10 in reading and language, level 13 in science and level 14 in social studies. The main point is that each child would be working at his achievement level in each subject area. He would be working with his peers at all times. Perhaps we could even call this the PGA or Peer Group Advancement Plan.

The practising teacher will immediately ask what happens when the child with a broken front in the various subjects leaves elementary school for a secondary school. My first reply would be to ask if this is not what happens in our graded structure at present. We see it in a child's marks when we award him an 'A' in social studies and a 'C' or 'D' in reading or language. But this is not the only answer. If it is necessary to present a solid front at Grade 6 or 8, a timetabling technique may be employed during the final year to direct more time to the low-level areas and less time to the high-level areas. If a child dropped considerably behind in one of the subject areas, the time would have arrived for specialists or clinical help.

From the levels systems it is not too great a step to a non-graded structure, where each child is permitted to travel at his own rate in all subject areas. There is a strong trend in this direction today. In essence, in a non-graded school, children within two to three-year

ranges of developmental levels are organized into groups. These groups overlap, and a child progresses from one group to another when he is ready for and able to perform the next range of developmental tasks. This may be accomplished through group progression. The grouping of children into stages of development rather than into ages is based on sound educational and psychological grounds.³ It is a natural grouping, well suited for any learning situation and a natural grouping socially. When children play together, do they sort themselves out according to year of birth, according to height or girth, or according to their stages of social, emotional and mental development?

Another variable is the organization of teachers for instructing. MacKinnon, in his *Politics of Education*,⁴ says that 'a clear distinction must be made among good, medium, and bad teachers, and there are all three types in most large schools.' I believe that both teachers and administrators would readily concede that most school staffs have teachers of varying effectiveness in the classroom. Certainly children, and parents through their children, quickly form a reasonably accurate judgment of a teacher's effectiveness as an instructor and as a personality in the classroom.

It seems unfair, then, that the law of chance is the only factor which determines whether a child has a year of poor, mediocre, or inspired teaching. This becomes particularly significant if one accepts Benjamin Bloom's⁵ claim that in terms of intelligence measured at age 17, about 50% of a child's develop-

The Auto-Tutor is another type of individual teaching machine.





Each child could be assured of his share of the time of the quality teacher if some form of specialization within the school could be achieved.

ment takes place between conception and age four, about 30% between ages four and eight, and about 20% between ages eight and 17. Although we cannot guarantee every child the advantages of a quality teacher all of the time, we can take steps to assure that the child will have his share of the time of the best teachers available in a given school.

This 'share of the time of the quality teacher' can best be achieved by some form of specialization within the school. Any experienced teacher would be the first to admit that he/she does a more effective teaching job in some subject areas than in others. We tend to like best the things which we do best, and if our teaching ever comes to the point of being truly inspirational, it is sure to be in this particular subject area. Is there any reason why school administration cannot take advantage of this fact at the elementary school level, instead of postponing it to the secondary and university levels? Is this not one way of accommodating to one of our constants—individual differences among teachers?

Implied in the section on possible reorganizations for pupils is the necessary reorganization of teaching procedures. Here we must look at such variations as team teaching and limited or unlimited departmentalization. A whole spectrum of possibilities for effective staff utilization opens up as soon as we start to reorganize the pupils. In a short article such as this no attempt can be made to describe in any detail the fundamental techniques employed in utilizing staff in any one of the ways suggested above.

I mentioned several other variables. One could devote considerable time to such areas as the changing

aims of elementary education in our modern society, the adaptation of curriculum to meet these changing aims, or the development of functional schools which meet the needs of children as individuals rather than as crowds within an age group.

Technology in learning is another variable which has been trying to crawl through the door of the classroom for years. Many of us pay lip service to its acknowledged values but secretly hope that, if ignored, it will quietly go away. We seem to have developed a fear of the very machines which we use for pleasure outside the school. It seems to be an attitude of mind rather than a lack of understanding. Teachers, as a group, have relied on verbalism in the classroom as the standard technique for teaching. Today this is open to question, as tests which measure the non-verbal aspects of learning encourage the increasing use of non-verbal techniques in teaching. We need to realize that the use of a machine can multiply the individual teacher's effectiveness in the classroom, and we need a willingness to experiment with new technological techniques as they become available.

Changes are apparent. Progressive administrators and staffs in many elementary schools are assessing present practice and making innovations which are bound to produce significant results. There is a growing body of enlightened opinion that many of the things we are now doing in our schools do not altogether meet the needs of our time, and some major adjustments are necessary. Action-research points the way. □

References on request.

PRE / SCHOOL?

THERE IS AN AGONIZING MISUSE of the word 'pre-school.' Obviously it applies to a situation in which a child is not necessarily required to answer roll-call, attend regularly, tremble through fire drill, 'open-up' to the school nurse, dentist, and doctor and, furthermore, does not occupy space in an established public school, organized and administered by a professional staff and the Department of Education.

But it becomes apparent in a short time to a tearful four-year-old, in a classroom with 29 other little folk, that he is *in school*. Yet people still call him a pre-schooler. People are funny . . . just let him be caught climbing the fences or trailing his toys all over the main hall—he soon finds out how *pre* he is in *that* school!

Clearly, then, kindergarteners do not belong in the untrammelled state of pre-school. They are entrants.

In Europe there are Infant Schools—complete schools especially designed to house the tinies. First is the Nursery class, then the Kindergarten, and then (the magic carpet) the Transition Class, where children wait and develop to a degree of readiness that compares with that of their peers in the Junior Infant classes. This may take a month or a year, but all the time educated growth is taking place. The youngsters are being schooled to help themselves physically, control themselves emotionally, enjoy each other socially, and prepare themselves for critical thinking.

The formative early years have by nature a limited dependence on birthdays. Skilled teachers of mature personality, articulate affection, and 'no-ceiling' understanding are vitally required in view of the face-to-face nature of the guidance they must give.

Ideally, accommodation for this kind of schooling would be planned to fit the need—perhaps a large central hall, giving off to several sound-proofed activity centers. One of these centers would house equipment to exercise big muscles—large floor blocks and toys, teeter-totter, sand table; another would be the place in which to use the woodbench, hammers and saws, wood and tools. A music center would allow free use of percussion instruments, playing records, singing around the piano, or keeping time in any number of ways, without disturbing those who wished to concentrate on games of matching, using things that encourage co-ordination, balancing skills, holding, removing and placing small puzzle pieces. These latter materials could be situated elsewhere, as could the Comfortable Place where children could rest quietly and look at books and pictures and examine research

items, or even (most important at an age when mimicry precedes activity) just watch, listen, and ask questions: 'How do they lift up the Iron Curtain?' 'My mother's name is Auntie Jane, too' (during a story).

Mimes, filmstrips, speech help could all flourish in such a setting, as could the arts and handicrafts. Another area would be of interest to young minds already aware of space, science, zoology, botany, and the many collections. Indoor areas would be separated from a covered outdoor area only by a door and climbing frames, large boxes, wheeled toys and other apparatus.

B.C. has done a tremendous job of trail-blazing in kindergartens. The Vancouver school district set up its original kindergartens on its own financial responsibility. In 1944 there were two; by 1957 there were 26, and teachers in those early years often enrolled as many as 100 infants on a week-on, week-off, half-day basis. Administrators were encouraging, hoping that the time would come when each teacher would enroll only two classes of 25 children, and the youngsters would be able to attend each day. Came the Chant Report, governmental refusal to finance, Vancouver trustees' decision to close the kindergartens, and finally an awakened public's demands . . . Kindergartens numbered 76 in 1959. There are now 120 kindergarten teachers in 114½ classes offering the program to 6412 pupils—about 70% of the children who could attend.

In some schools there is only one kindergarten class, and there is at least one school with five. The children are counted for the per capita grant and are provided with equipment and space. The program, although fluid, contributes to all the later study courses—perhaps in a different manner, but just as surely. The children are given the Metropolitan Readiness Tests, the results of which are sometimes used as a guide to grouping in Grade 1 and which certainly provide the Grade 1 teachers with student information.

Who can say these children are pre-school? Ask any kindergarten teacher at the end of a day spent with 60 four-to-five-year-olds. They — the teachers — will not have much to say, but they know. Their work is done in schools—and in an essential area of those schools.

A magician's performance looks easy, too . . . he also has the magic touch that produces in great quantities from no visible source. □

Mrs. Lamont teaches a kindergarten class at Sexsmith School, Vancouver.

LOOK WHAT'S HAPPENING TO ELEMENTARY SCIENCE

MOST ELEMENTARY SCIENCE PROGRAMS in use in Canadian and American classrooms are strikingly similar. They reflect in varying degrees the themes of Space, Time, Change, Adaptation, Variety, Interrelationships, Equilibrium and Balance, Energy, and Motion, as they were enunciated by Gerald S. Craig¹ in the late 1920's. While a variety of ways of organizing these themes is used, the same basic 'big ideas of science' are always discernible.

It was not until 1960 that a feasibility study conducted by the American Association for the Advancement of Science seriously questioned the suitability of this type of science program. Is this science curriculum appropriate for today's children and the future they face? Are basic revisions necessary? Or are only minor modifications demanded by new science knowledge? While all eight of the recommendations resulting from this feasibility study are important, three are worthy of special attention in this article:

1. Teaching should stress the spirit of discovery, characteristic of science.

2. The preparation of instructional materials will require the combined effort of scientists, of classroom teachers, and of specialists in learning and teacher preparation.

Mr. Purvis is a member of the Faculty of Education, University of Alberta, Edmonton.

3. There is great urgency to get started on preparing improved science materials.²

In addition to these recommendations from the AAAS feasibility study, recent writings of certain educationists have relevance to the kinds of science experiences that elementary children should have. Katagiri³ suggests that the major burden to develop scientific literacy in all children rests on the elementary school science program. Because of dropouts through the grades and the strong tendency of senior secondary pupils not to elect science courses, the elementary grades represent the only opportunity we have to involve the total school population. Vessel⁴ states we must develop elementary programs to meet the needs of three kinds of pupils—a very small minority who will become research scientists, a substantial number who will become technicians, draftsmen and designers, the remaining large majority who must understand the scientific enterprise in order to judge intelligently rather than emotionally the significance of work being done by the researchers. They will also become the large consumers of the fruits of science.

Whitehead⁵ says,

'... our rate of progress is such that an individual human being, of ordinary length of life, will be called upon to face novel situations which find no parallel in his past. The fixed person, for the fixed duties, who,



NEIL M. PURVIS

in older societies was such a godsend, in future will be a public danger.'

Baker,⁶ in addressing the Science Specialist Council of the Alberta Teachers' Association, had this to say:

'... the teaching of science and mathematics, after a long struggle for a place in the curriculum, has remained excessively practical, dogmatic and routine... the situation seems especially unfortunate for mathematics and science—at least insofar as dogmatism is concerned—because this quality denies the essential spirit of both disciplines.'

The recommendations of the feasibility study and the general concern of many educationists as expressed by Katagiri, Vessel, Whitehead and Baker seem to be reflected in a number of experimental elementary science programs which have been undertaken in the United States. Some of the most promising of these programs and the ones which will be referred to in this article include the following:

AAAS Commission on Science Education
Director—Dr. John R. Mayor
American Association for the Advancement of Science
1515 Massachusetts Avenue, N.W.
Washington, D.C. 20005

Elementary School Science Project
Director—Dr. John H. Wood
Utah State University
Logan, Utah

Elementary Science Study
Director—Dr. Benjamin Nichols
Educational Services Incorporated
108 Water Street
Watertown, Massachusetts 02172

Science Curriculum Improvement Study
Director—Dr. Robert Karplus
University of California
Berkeley, California

University of Illinois Elementary School Science Project
Director—Dr. J. Myron Atkin
University of Illinois
Urbana, Illinois

For listings of other projects, materials, prices, consult:

Third Report of the Information Clearinghouse on New Science and Mathematics Curricula, March, 1965, available from the Science Teaching Center, University of Maryland, College Park, Maryland. This publication is revised annually.

Let us now examine the general characteristics of the emerging experimental programs for elementary grades.

One striking characteristic of the new programs is less emphasis on content *per se*. While the organization varies from program to program, there is generally no attempt to cover the wide range of topics found in existing elementary science programs. Emphasis on topics has yielded to emphasis on activities. The activities are chosen so that the child can make empirical observations in varying degrees of sophistication, depending on his age and past experience. The child participates in sufficient depth to experience the processes which are inherent in discovering knowledge in the world around him. Each experience is a part of a first-hand organization of the structure of the subject which is deemed necessary if the child is to understand the inevitable changes and innovations of the future, and if he is to remain scientifically literate.

Emphasis on Finding Knowledge

The scientific method is stressed in existing programs; observing, collecting data, interpreting, hypothesizing, verifying, predicting, and inferring are stressed in the new programs. The emphasis in existing programs has been on accumulating knowledge; the emphasis in the new ones is on how to find and create knowledge through a working understanding of the essential processes.

The new programs attempt to provide a more basic education for all pupils. Required active participation by the child means the use of as many senses as possible, not only those related to reading and talking. It is one thing to have a teacher demonstrate that a white powder contains starch, by mixing it with an iodine solution; it is quite another thing to have a number of white powders available, with instruction for the children to find ways to identify them. Children will taste, smell, feel and observe, rather than try to memorize what the teacher did.

Present programs stress preparation for secondary school and university; the new ones stress the conceptual schemes which hold all science together and give it meaning to the future layman as well as the future research scientist. Present programs are based on topics; the new ones are based on processes, or what people do in science. Present programs stress the uses of science, including technology; the new ones stress science, or, if you like, the essential spirit of the scientific enterprise.

The new programs reflect changing emphases in learning theory. The recent increased interest in the work of Jean Piaget and Jerome Bruner indicate what some of these changes are. Piaget places a new emphasis on the importance of active participation by

the child in the process of learning. The progressivists recommended activity because it was a means of capitalizing on the natural behavior of the child; Piaget recommends it as a means of helping the child build a structural framework for logical thought through the process he (Piaget) calls 'interiorization.' Where many of us have seen activity as the means of helping the child practise certain skills, Piaget sees it as the only way the child can progress from the stage of understanding experiences of his perception only, to the stage of formal operations and abstract thought, a change which normally takes place between Grades 2 and 6. During his elementary school years the child needs the opportunity to try things, to handle objects, to manipulate materials if he is to progress to the stage of abstractions during his teens.

Piaget also sees a child's activity as a means of helping the child grow from his egocentric state to a socialized state, where he recognizes the relationship between himself and others. His stages of concept development are reflected in the new elementary science programs, particularly during the stage of concrete operations, when the child needs to have many first-hand activities. Piaget sees striking resemblances between the processes of science and the processes by which the child learns about his surroundings. The

Continued on page 195



Finding out and recording for oneself how a twig is formed is much better than just reading about it or looking at a picture.

highlight your speech arts program

NAN LONG and BERT BREWER



This is a scene from *La Princesse et le Porcher*, a play in French, German and English, written by Mr. Brewer with the help of the Grade 6 class that was taking French with him. He was also the producer.

AT THIS TIME OF YEAR many teachers become involved in speech arts festivals. Whether or not an entry is presented for competition, it will be judged by adults and their opinion of the school in general will be based, partially at least, on that judgment. So in the interests of good public relations, if for no other reason, this is a case of 'If it's worth doing, it's worth doing well.' A good entry can be achieved by combining enjoyment with pride of achievement compatible with the abilities of the group concerned, rather than aiming for a faultless, mechanical performance.

Drama and poetry-reading should be part of the classroom program all the year, with the festival as the highlight. Where classes have taken drama and poetry for granted, presenting a piece for adjudication is a challenge, not a chore; it could mean polishing a class favorite, or tackling something a bit more difficult. If it is correlated with some other part of the curriculum (e.g., social studies), so much the better.

Care should be taken to comply with any regulations set by the Festival Committee; if possible, check with the adjudicator to find out what is or is not acceptable. Some judges have definite opinions about whether or not choral speech should be accompanied by actions; others may have reservations about mime, with or

without music, or puppet shows. A list of some of the books which may be helpful is given at the end of this article.

While we can give no guarantee that teachers and adjudicators will agree with us, we believe the best entry is a short (5-15 minutes) play which involves the whole class, has been composed by members of the class, and is based on a well-known story, an event in history, or a local theme. This kind of presentation usually involves a number of characters supported by the rest of the class in crowd scenes or as minor characters, soldiers, fairies, or whatever can be worked into the play. Most fairy tales and legends and many historical events lend themselves to dramatization. For younger children, the use of a narrator (who could be the teacher or a parent) maintains continuity and allows for spontaneity.

For those who wish to produce set plays, there are a few in our texts but most will be chosen from other sources. A magazine, *Plays*, is issued for this purpose, and there are several anthologies of children's plays, and separate editions as listed by such publishers as

Mrs. Long teaches kindergarten; Mr. Brewer is Supervisor of Elementary Instruction and organizer of the Kitimat Elementary Drama Festival. Both authors have directed elementary school plays and acted in plays for children.

Samuel French of Toronto and Educator Supplies Ltd. of London, Ontario.

Perhaps you would prefer your class to present a choral speech. If you do this as 'the easy way out,' don't be surprised if the adjudicator is not enthusiastic about the performance. This form of dramatic interpretation requires that the teacher be enthusiastic about poetry and sensitive to voice inflection, mood and rhythm. Correct choice of a piece suitable for choral adaptation, interesting to the class, and at the right academic level, rarely seems to be attained. Several books have been published to help teachers with this problem; a few titles are included in the book list.

Teaching Dramatics

If you have a 'reluctant' class, try using glove puppets when reading plays or stories, then ask children to make the puppets retell the story. Work with the few pupils who show some interest, start creative dramatics at the point of highest interest—e.g., a chase, a fight or accident. When discussing acting, use only positive criticism and refer to the part or situation rather than to the pupil . . . 'What made the serious part funny?' . . . 'In what other ways could the part be played?' . . . 'How could that awkward situation (describe) have been avoided?' When interest has been aroused, create scenes leading up to those enacted but keep polishing and props to a minimum. Discuss how the characters would see, feel and react if they were real, and while in the gym or during a short break, have the whole class act out animals and moods; get them to feel angry or excited, to act like cats or monkeys, and refer particularly to characters in such well-known stories as Aladdin, Snow White, Beauty and the Beast, Superman. When you have reached this stage, your class is no longer reluctant.

When you have an enthusiastic class with a fair degree of dramatic background, allow different groups to work independently and to take turns to perform in front of the class, aiming at only one or two 'productions' for festival or assembly. In the upper grades, desirable dramatic standards can be discussed and attempts made to incorporate them in their own creations. For example:

a) Ability of group to work together; importance of interaction, good drama not a number of separate parts.

b) Effect of suggestion, inference, suspense; how to present an idea in different ways to build up an expectation; how to establish character—costume, make-up, deportment, mannerisms, voice, kind of remarks such a character would make, use of other parts describing a character.

c) Main parts of a plot must be tied together; importance of secondary characters; possibility of sub or counter plot, e.g., an historic event and a personal experience of the main character; a friendship between two persons in opposite camps (Romeo and

Juliet, Indian and paleface, etc.), a play within a play (e.g., *A Midsummer Night's Dream*) . . . this is used in pantomime, when jugglers, clowns, dancers, etc., come on just to entertain.

d) Production techniques . . . prompt, stage-hands, lights, curtains, effects . . . introduction to directing.

Presentation

For our own festival last year we asked the adjudicator what she would be looking for and she made the following suggestions to directors;

Choral Work: clarity of diction, with good projection, is most important; use as many combinations of voices as possible, including solo voices if appropriate; the chorus should use voices only; if you wish to include actions, have them performed by a separate group of pupils, but do not detract from the chorus.

Dramatic Work: aim at an overall visual presentation which is pleasant and interesting to watch, accompanied by good projection of clear diction in as natural a manner as possible; movement on the stage should be well executed and should produce attractive groups; aim at pupils getting into the characters of the parts they are acting.

Costumes: should be simple, but effective.

Lighting: simple but appropriate.

Props: keep to essentials; try to be imaginative and original.

Sets: for more than one play a neutral background might be more convenient; use curtain as little as possible.

Books on Dramatics

Nelms, *Play Production*. A handbook for the backstage worker. A guidebook for the student of drama.

Barnes and Sutcliffe, *On Stage, Everyone*. Acting for students, with selected scenes—high school level.

Gassner and Sweetkind, *Introducing the Drama*. An anthology, with introductions and comments, for senior students. Background information on most of the well-known playwrights.

Whorf and Wheeler, *Runnin' the Show*. A 72-page practical handbook on play production.

Books of Plays

Field, *Patchwork Plays*. 5 plays, 15 to 40 pages each. Royalties \$2.50.

Hampden, ed., *Eight Modern Plays*. For upper grades and clubs; commentaries and acting notes; royalties.

Burock, ed., *100 Plays for Children*. From *Plays* magazine—production notes; no royalties.

Compton, *The Curtain Rises, Beginners Please*. 20 to 30 pages each, for Grade 7 and clubs.

Durrell and Crossley, *Thirty Plays for Classroom Reading*. Short plays for the middle grades, with practical suggestions for the improvement of speech.

Books on Choral Speech

Gullan, *Choral Speaking*. Includes methods and selections suitable for upper grades.

Gullan, *Spoken Poetry in the Schools*. Method with examples.

Gullan and Gurrey, *Poetry Speaking for Children*. Parts I, II and III—method with examples.

Abney and Rowe, *Choral Speaking Arrangements*. Selections suitable for primary classes.

Bebbington and Brown, *The Choir Speaks*. An anthology for upper grades.

Hemphill, ed., *Choral Speaking and Speech Improvement*. Methods and selections for kindergarten and primary.



The boys' projects all have a masculine touch.

The principal and teachers of Morley School, Burnaby, have been actively engaged for several years in an experiment in teaching boys and girls at the primary level in segregated classes. The material for this article was provided by the school staff, some of whom have been on the project since its inception and some of whom are new to it.

THE NEED TO STUDY new approaches to primary education arose from the many questions being asked. Why were most boys always in the low groups? Why were 'special classes' filled with boys? Why were the 'remedial classes' predominantly boys? Why were there so many boys in the 'drop-out' group in junior secondary? Why did more boys profess to 'hate school' than girls?

Lack of interest, lack of success, unfair comparisons, books and curriculum geared to girls' interests—may be related to the sometimes poor achievement of boys in school. Morley School in Burnaby began segregated classes to determine what factors might come to light which could be used to evaluate the problems.

The project has gone on for three years and has resulted in some interesting observations. All the teachers involved tried to be as objective as possible. They discussed the courses and the variations necessary to meet individual needs and listed preferences of both boys and girls for topics of discussion. Behavior, discipline, class atmosphere, and quality of oral and written work were carefully recorded.

Several teachers, after three years, agree that self-discipline is very difficult for a boy. Their opinions can be summed up as: 'It seems there is no place in a six-year-old boy's life where quietness is necessary.'

PRIMARY BOYS DO BETTER ALONE

KATHLEEN E. COLLINS

They talk loudly, they walk loudly, they work loudly, and, I guess, they are quiet in a loud way.'

Boys have definite ideas and will bluntly state them. They interrupt without thought and constantly question a teacher's word. They don't want to be told about too many things; they want to solve mysteries themselves. They want to discover and explore, with the teacher supplementing the knowledge, but not handing facts out without proof. They fight each other physically and verbally at the drop of a hat. Tempers flare up quickly, but as quickly simmer down; closest friends are often at searing odds. They are so enthusiastic about their interests that they can't be pried, without difficulty, from them. Whenever there are two sides to an argument they participate, in miniature, exactly as their fathers do at a ball game—they cheer loudly or 'boo' with fire. Two minutes after a final decision, members on opposite sides of a heated argument are happily chumming on the playground.

Girls, while being enthusiastic, are sensitive to each other. They seldom fight physically in school. They will not laugh at each other, but try to help each other as much as possible. Another comment is significant. 'They don't come out with the blunt sayings boys do. When a girl is doubtful, her questioning is as intense as that of the verbal boy, but her manner of questioning is more subtle. Girls are more likely to accept things the way they are.' If they do disagree, they are miserable for hours or even days. Friendships run hot and cold with vocal recriminations or vows of loyalty. Girls' feelings are easily hurt and not easily mended.

'Having the opportunity to teach both the girls and

Miss Collins is Primary Supervisor in Burnaby.

the boys, I feel that one of the major differences between the two Grade 3 classes is a physical one. The girls have softer voices and thus their talking is not as noticeable. The boys are much heavier on their feet, too, and they wear thick, heavy boots which make much more noise than do the girls' soft-soled shoes.'

One group of boys has had a man teacher for Grades 2 and 3. It was thought that boys would discuss 'men's topics' with a man, and this assumption has proved to be correct. In every case, however, the teacher's own personality and enthusiasm had a great deal to do with the program that emerged. Boys expect a man to know scientific data and are wildly enthusiastic to work on any unit that requires finding out information and 'doing things.' They want to touch, undo, unlock, pound, beat, taste and shout out each observation.

Girls will be circumspect about reporting on any matters that appear 'delicate'—e.g., mother's having a baby. Boys will want to 'feel the baby kicking in mummy's tummy' and then rush to tell the teacher. Girls like to discuss topics concerning 'people'—food, clothing, homemaking, plays, styles. Boys discuss 'things' thoroughly—rocks, magnets, dinosaurs, weather, boats, airplanes, rockets, power, clocks. Whenever possible boys will bring materials to school. Motors arrive on the doorstep transported by the whole class. Clocks have to be completely dismantled and each part studied, but there is no desire to replace the parts and put each into running condition again; possibly this is a later development.

Reading. 'Boys love to read orally if the stories are

Girls prefer quiet, homemaking projects.



adventuresome or humorous.' They dislike commonplace stories or those with little action. They will master any words in their own stories or experiences. In some instances textbooks left them cold; their own stories were better. One boy read absolutely nothing from a reader but blossomed forth successfully when he read his own stories and those of his friends. 'Boys read with depth. Words with more than one meaning appeal to them—e.g., 'jump'—jump a fence (action)—high jump (the object)—jumping bail (idiom).'

'Most boys have difficulties in phonics. They do not speak all consonants correctly when they come to school; nor do they "hear" them easily.' Auditory exercises have to be given repeatedly throughout each primary grade. Reminders to use phonics or other rules must be constant. When a phonic skill is found in a reading situation, the boys' interest becomes enthusiastic. If a thing is 'important' to a boy, he will learn it; otherwise, why bother?

Girls love to read from books, mostly stories about people, animals or fairy tales. 'They enjoy phonics and use the skills to "unlock" new words. Only the low groups need reminding to do this.'

Both boys and girls love library books. Each selects according to his or her own interests. Boys want facts, adventure, action, feeling. Girls want people or animals to talk and act, and they never tire of fairy tales.

Printing. Girls love it; boys loathe it. When the transition from printing to writing begins, the girls are ecstatic; the boys moan. Given a choice this year, the Grade 3 boys chose printing to writing 'any day.' Boys' muscles differ to such an extent from girls' that this factor may make it more difficult for boys to print. There is some thought being given to having the boys learn to type in their first year at school. Typing would be faster and the work neater. Educators have wondered how often one child receives a perfect score for neatness and mediocrity, while another gets a C- for untidy but brilliant work.

Individual tests were given for oral and written work in both boys' and girls' classes, using the vocabulary section of The Dominion Reading Test. These were the results:

1. Girls achieve almost as well in a written test as in an oral one.
2. Boys achieve slightly better orally than in writing.
3. Both boys and girls do better in segregated classes than in a mixed class.

Spelling. Boys generally like spelling, but learn it the hard way—by memory. Girls use their phonics and structural analysis to help them. If a boy does achieve success in spelling, he will work to become a good speller. Girls have less difficulty and are usually quite successful. Total failure in spelling often occurs when children have no auditory skill to relate to a visual skill. Early auditory training with constant repetition helps boys become better spellers.

Physical Education. Boys love plenty of action, competition and body contact games. Girls prefer skipping, running and competitive activities geared to their physical strength. Because of the varying interests and abilities, both girls and boys prefer to participate in segregated PE classes.

Arithmetic. Boys enjoy manipulation of numbers, but become tired of repetition. If they have a competition to look forward to, they will learn their facts automatically just to win. They are clever in using objects to 'prove' their facts.

Girls learn the abstract facts readily, and express a desire to discard concrete materials sooner than do boys. They may not enjoy the science of mathematics as boys do at the primary level.

Creativity. Both boys and girls are creative in writing, speaking, dramatization, art, crafts, etc. The girls are more meticulous about detail, but the boys are more dashing in action and color. In finished products the girls show neatness and system; the boys are not too neat, but are bursting with originality. If girls make a village, it turns out to be neat and tidy with all the essentials and interesting details. Boys' villages must have every detail there—road signs, trees, store signs, street lights, washing hung to dry, TV aerials, weather vanes, church spires and stained glass windows, dogs, cats, trucks, etc. The girls' product will be a lovely picture; the boys' will teem with life and activity, but will lack neatness.

Music. Both boys and girls love music if the teacher is enthusiastic. Boys love noisy songs, marches, and humorous songs, as well as lullabies. Girls like rhythmic songs, those about animals, children, etc. Boys dramatize music more colorfully or more grotesquely than girls, who are milder in their reactions. A man has helped the boys with singing and they think he is tops.

How do the boys and girls like segregation? They prefer it. They love to 'share' with each other as they complete a unit of work, but they often tolerate the involved explanations just to be polite. Boys are not really interested in clothing and materials. Girls are not really interested in the instrument panel one might find in a rocket.

How do parents like the segregation? They do—especially the parents of boys. Fathers become deeply involved in the boys' experiments and mothers uncover treasures for their daughters.

The biggest gift of all to everyone is that no little boy acts or looks defeated in the segregated groups. Each boy participates in things he loves to do with others who are enthusiastic and who treat him as an equal. There are no sweet little girls to crush his efforts or to flaunt their successes before him. He is with men and he likes it.

There are many more avenues to explore before accurate statements can be made about the desirability of segregating boys and girls. More children need to be involved, more teachers, more schools, more equipment.

In all the numerous tests given, however, teachers agree that the results bear out their observations. One plan in the project was to discover topics for a curriculum that would interest boys and/or girls. These topics are carefully filed and it is hoped that in a few more years sufficient material will be accumulated to provide a sound basis for submitting the whole for consideration to the Curriculum Division of the Department of Education.

Test Results. Test results by the end of Grade 3 show that in segregated groups, both boys' and girls' classes show significant gains in reading, arithmetic, spelling and related subjects. Control groups having parallel teaching and testing have not made the same gains. In each instance, however, the gains in boys' achievements have been higher than either the girls' groups or the mixed groups. Such results from tests and the many observations made by competent staff personnel lead to the conclusion that the project is worth-while and will continue.

There is every reason to believe that by challenging the interests of boys through an enriched curriculum, by stimulating their active participation, and by giving them confidence through their achievements, more boys will enjoy school and more will succeed in each year's work. □



"It's just like opening thirty surprise packages every morning."

LEARNING TO LEARN

ANGUS M. GUNN

OUTSIDE THE CLASSROOM

WHAT IS EDUCATION? Is it something that occurs in the classroom or can it be found elsewhere? Is it something contained in books or does it exist in other containers? Is it something unpleasant or is it something you enjoy? Is it for a certain intellectual elite or is it for all ability and age levels? Why do field studies create an enthusiasm and a depth of intellectual activity that is rarely seen in the classroom?

Answers to these questions will readily be suggested by a group of teachers who completed a series of field studies in the Lower Fraser Valley. The group consisted of: Edgar Barabonoff, Marvin Childs, Don Chitty, Mike Deans, Gordon Gibbs, Tom Good, Jann Hallenan, Glenn Lackey, Maureen Noonan, Ida Olson, Bernice Pottinger, Ross Stanway, Bryan Stigant, and Mike Todd from West Vancouver and Eleanor Cutler from Burnaby. The organization and direction of the field studies were in my hands.

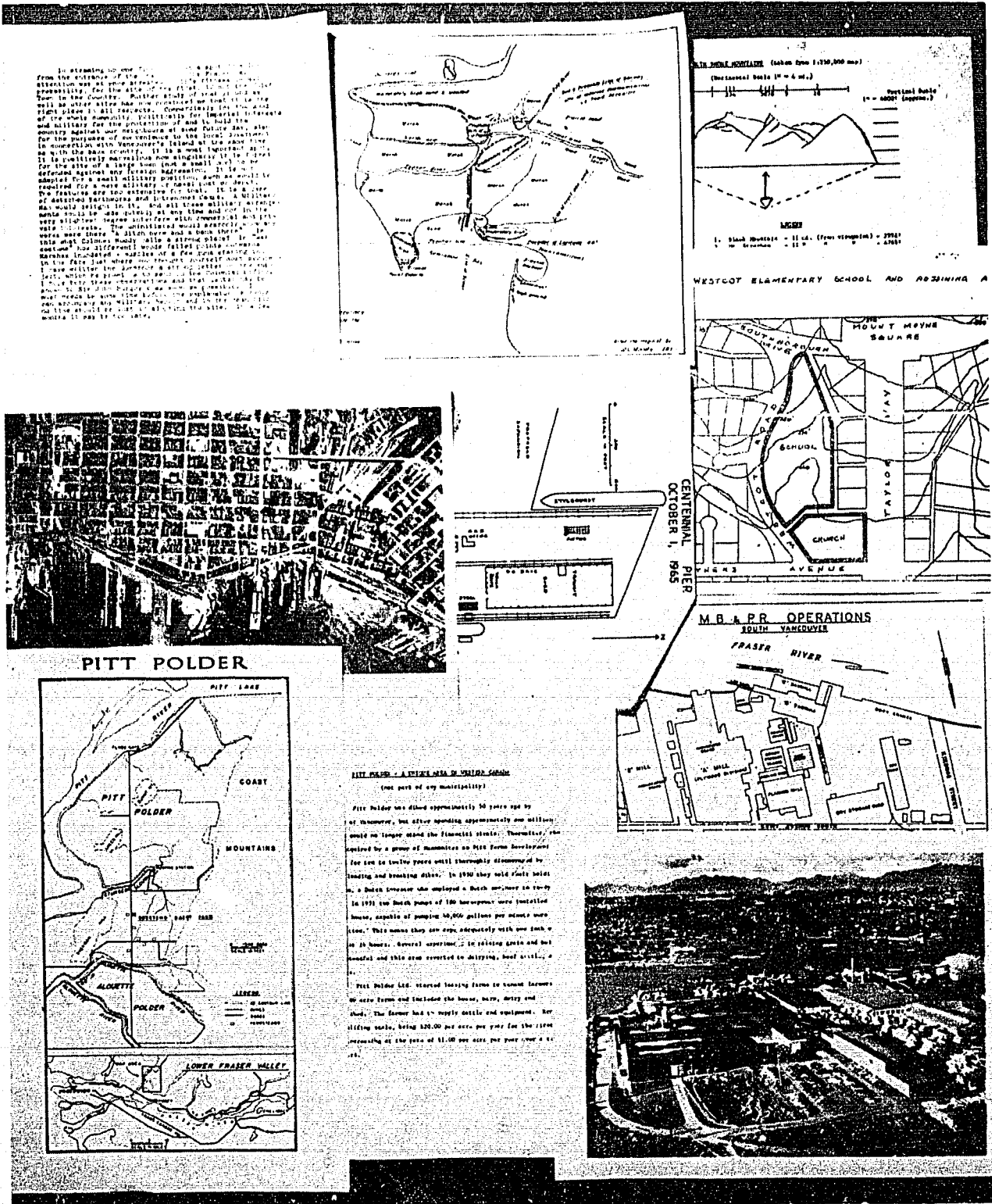
The field studies were a co-operative arrangement between UBC's Faculty of Education and the West Vancouver School Board. Five all-day Friday sessions were held in the field followed by five half-day classroom sessions on Saturday mornings, in which the activities of the previous day were assessed in terms of the needs of the classroom. Class sets of materials were prepared for the schools of West Vancouver as part of these Saturday sessions so that some of the values of the field activities could be brought into the classroom. A few samples of the many materials prepared are shown in the accompanying illustration. With the aid

Mr. Gunn is a member of the Faculty of Education at UBC.

of suitable questions and exercises these pictures, maps, and descriptions enabled the teacher to simulate a field trip without leaving the school.

Two distinct values emerged. First, the experience provided some field study techniques plus a familiarity with the community which prepared the way for field trips by school students. Second, the development of simulated field trips, or a local frame of reference, improved instruction in social studies throughout the entire year's work. Places remote in time or space become real when compared or contrasted with familiar local conditions.

Typical of the Friday activities was a one-day visit to the heart of the Port of Vancouver. The visit began with a one-hour conducted tour of the area between Centennial Pier and United Grain Growers elevators. After the tour came a series of group activities: mapping Centennial Pier for that day, listing the types of fish and types of boats at the fresh fish wharf, watching and studying the loading of cattle for Chile, making an input-output study of such industries as B.C. Sugar Refinery and Buckerfields. Typical of a half-day activity on the Fridays was a viewpoint study from the Queen Elizabeth Arboretum: matching the landscape with a large-scale topographic map, estimating distances and heights and checking results from the map, locating the horizon on the map, picking out the 1200 foot contour level on the North Shore mountains, and comparing a section drawing from the map with the view. Other places visited in the course of the five days were: MacMillan, Bloedel and Powell River operations in South Vancouver, Pitt Polder farming



Some of the materials used during the field study sessions. Left to right beginning at the top: letter written by Col. Moody describing New Westminster; map which accompanied letter; tourist marker made at viewpoint; aerial vertical photograph of Centennial Pier area; map of Westcot School environs; location map of Pitt Polder dairy farm visited; description of Pitt Polder; map of MacMillan, Bloedel and Powell River operations; photograph of New Westminster looking north.

area near Haney, B. C. Packers cannery in Steveston, Burrard Dry Dock, Aluminium Company of Canada plant, Irving House and the site of New Westminster, and Fort Langley.

What did the participating teachers say in their reports of the trips? The following quotation is typical: 'Quite apart from their value as enrichment for us and as improvement for the teaching of social studies in the classroom, these trips were enjoyable. It didn't matter whether one was 20 or 60, the physical demands were few. It didn't matter whether one was male or female either; the interest factor was equally strong for both. It didn't matter what the background of each person was; there was plenty to challenge every level of interest and background.'

Other Values Lie in Social Adjustments

The above is a very brief summary of the experiences and impressions of those who shared in the field study project. Very much more could be, and has been said of the wealth of interesting details discovered. But there were other values which were not recorded, or even mentioned, yet their existence would be readily recognized by all. These not-so-incidental values lie in the realm of social adjustments, a healthier approach to subject commitment, and a new interest in his own community that makes a teacher more committed to the life and work of the community.

For too long we have accepted the idea that education is best performed through the medium of books in the classroom type of setting. Other approaches, while tolerated or even at times encouraged, are regarded as secondary. Such experiences as those of the West Vancouver teachers strongly suggest that field studies are a superior, if not indispensable, approach to certain aspects of social studies and science. From an interest factor alone the three-dimensional reality of the outdoors is so much better than the two-dimensional dismembered world which constitutes even the best of classrooms.

The wealth of detail found outdoors constitutes a general field of inquiry within which the individual student can exercise principles of selection, and thus find the paths which lead into specialist fields of study. The teamwork, the incidental conversations along the way or during a picnic lunch, and the opportunity to learn at the feet of non-academics like the farmer and the dock worker all enrich this learning situation. Finally, these field studies are far from parochial in their scope. The rapidity of change which Greater Vancouver has seen over the past 100 years, and its present involvement in world trade make the area a microcosm of a global scene. The student who has made a thorough study of this area is familiar with most of the important processes and patterns which are found throughout the Western World.

By the way, the Friday sessions were held in school time, and the school board paid out well over \$1000 in substitute-teacher costs. □

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Elementary Teaching is Harder than Secondary Teaching

BERNICE McDONOUGH

MOST ELEMENTARY TEACHERS shudder at the thought of ever being called on to teach high school; most high school teachers picture purgatory as a classroom completely filled with eager eight-year-olds. The first group believes that problems are in direct ratio to the size of the pupils, while the latter marvels that their colleagues possess the particular brand of hardihood required to spend their working days in a situation where the unexpected is the usual and where the unusual is to be expected.

No one who has spent any time in the teaching profession will deny that, if conscientiously undertaken,

teaching is hard, exhausting work. This is inherent in a task whose object is to train, to discipline, to encourage and to inspire the young. At the risk of being hurled headlong from high school I submit that in large elementary schools in our urban centers the task of the elementary teacher is more difficult and more demanding than that of the high school teacher.

There are many reasons for this observation. The first is the overcrowding so prevalent in elementary classes. Any primary class which exceeds 30 and any intermediate class which exceeds 35 is too large; ideally 25 in primary and

30 in intermediate would ensure that the children of this province were getting a fair start. Yet our elementary teachers would welcome the 30 or 35 limitation, for many of them are now attempting the impossible—trying to teach classes which range in size from 38 to nearly 50.

In such a situation everyone suffers, but the pupils suffer the most lasting damage. It is not possible for any teacher, no matter how zealous she may be, to give 38 or more pupils equal opportunity for progress up the educational ladder. Teachers, too, suffer in such a situation. The impact of too many per-



Everyone suffers when classes are too large. It is not possible for any teacher to give so many pupils equal opportunity for progress and teachers suffer the impact of too many personalities clamoring for attention.

sonalities clamoring for attention, too many demands on their time and too much paperwork all combine to produce frustration and at times an all-pervading bone-weariness.

High school classes are also growing larger as the boom in births continues to inundate our halls and as the extension of family allowances encourages more pupils to remain in school until the age of 18. But high school classes tend to be more homogeneous; high school pupils are quieter—the years of turning, twisting, whispering, pinching and poking are past. The average adolescent does not clamor for attention; in fact he often seeks to avoid it. The ebullience, the brash self-assertiveness and the unruly tempers have usually been curbed by the time pupils reach high school. Elementary teachers have helped the pupil attain the self-discipline and the work habits which make for success in high school.

That they have done their job so well is amazing, for many of them have pupil-loads that are staggering. In addition to sheer weight of numbers, there will usually be, in a primary class of 38, about four children who should not be there. They may be mentally retarded or have suffered brain damage at birth; they may be emotionally immature, or be suffering from a severe speech defect. Whatever the cause, the teacher knows in two or three weeks that they will not achieve at the same rate as the average child. But our special classes, too, are often crowded, and these children must spend a year or two waiting for admission.

The devotion of our dedicated elementary teachers is exemplary. Their understanding of and love for the wonder of childhood is deep and real. Mrs. S. is representative. For the last eight years she has registered classes varying from 37 to 43. She invariably has two or

The author teaches at Burnaby South Senior Secondary School.

three of the problems mentioned above. She invariably refers to her pupils as 'dear wee souls,' and she means it.

She says, 'He's a dear wee soul but I have 16 in my slow group and I can't seem to find a minute for him. He disrupts the class every five minutes, poor dear. It's not his fault but he really shouldn't be with us.'

Mrs. E., who is as rugged and healthy an individual as one could find in the profession, said, 'After a few months with a class of 40 second-graders, I came home exhausted every day. I told myself I must be slipping. I never seemed to get around to any of the activities children enjoy—putting on plays, finger painting, singing games or rhythm band. Then I realized that this was the first year I had taught such a large class. I would suddenly look at some quiet little boy and realize I hadn't spoken a personal word to him for days. Just because he was quiet and did his work well, he was being neglected in this large class. That word of praise or encouragement means so much to the little ones, but with 40 pupils you can't manage it often. Just getting through the reading and phonics and number work in the three groups takes every minute. It's not fair to them.' Neither are these situations fair to good teachers.

Another factor which makes elementary school teaching more strenuous than teaching high school is the greater noise level. Young children have a charming exuberance—they love to run and shout and laugh and screech. Multiply all this by 600, add the fact that basement play spaces have disappeared, that the winter, at least in the Lower Mainland, tends to be long and rainy, and the effect is cumulative. Children require constant supervision at recess and noon and they find the necessary restraints intolerable. The result is often poor classroom behavior and an increased strain on all the staff.

High school students have clubs and games to occupy their noon-hours or they can sit quietly and read or talk. While many teachers do give up their noon-hours to supervise such activities, there is not a tenth of the strain and tension in high school that there is in an elementary school.

The elementary teacher's work in the classroom is more difficult than that of a high school counterpart. Young children require more constant supervision; their attention span ranges from five to 20 minutes; thus the teacher is in constant focus and is giving, giving, giving all day long. High school pupils can do an assignment with less supervision and no interruptions; they can organize a discussion group or act out part of a drama without constant aid from the teacher, but this is rarely so at the elementary level.

An elementary teacher is, in a sense, a general practitioner, while a high school teacher is a specialist. The latter must know the subject matter thoroughly and be able to present it effectively; the former must be extremely versatile—teacher, psychologist, mother, musician, umpire and judge. In high school the platoon system, with the pupils changing every hour, gives all a change of pace; in the elementary school, if a teacher has problem children, she has them all day, every day for the school term.

Continued on page 192

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A Matter of Opinion

Continued from page 190

With any large class the paperwork is greatly increased, as well as the teaching and supervisory load. As the number of pupils rises above 30, adequate marking is one of the first things to suffer. This is serious at any level, but in elementary school it is nothing short of disastrous, for here the habits are being formed, the pattern is being set for good or ill. Marking 30 papers is fairly easy; 35 is work; and 40 is unmitigated drudgery. But in elementary school constant marking and correction of mistakes is essential to pupil progress.

Devoted primary teachers often spend their whole noon-hour marking as they eat—if they are not on supervision. They continue after school and then do their blackboard work, for in every primary classroom the blackboards are completely filled with lessons, often twice a day. Reading questions, language exercises, number work—an endless bel of questions to keep little minds active while the tea-

cher is working with one of her three or four groups—and all this work should be corrected.

A close pupil-teacher relationship is desirable at all levels of learning, but it is doubly important in the formative years. A teacher likes to feel that she knows her pupils, that she has some time in a day for each one of them. A pupil likes to feel that the teacher is interested in him, that she has time for him. As soon as class size increases, this relationship rapidly disappears and teaching tends to become a dry automatic process—something it should never be. It is often the very pupils who most need individual help—the shy and quiet ones or the potential dropouts—who suffer first.

In the last five years we have heard a great deal about the shorter work week and increased leisure time resulting from automation. Teachers have seen none of this. As a consequence of increased numbers of students at every level, increased paperwork and increased pressure on more children to go farther in education, we are work-

ing harder than ever before.

The national furor over education during the last 10 years has resulted in many curriculum changes, a new system of high school streaming, the upgrading of teachers' qualifications, new readers, new science courses. In themselves these changes are no doubt beneficial, but the one change which would do more than any other to ensure that children get a fair start is the reduction of the number of pupils in each classroom.

As long as the Department of Education insists that one teacher for 37 pupils is an adequate ratio for apportioning grants, so long will the children of this province get less than the best in education. The provincial government boasts that we are debt-free, that we are living in a dynamic society; then let us pass along some of these benefits to our young people and stop crowding 38 or 40 of them into one classroom. It is folly to expect this type of education to produce citizens equipped to cope with an industrialized, mechanized, automated society. □

Call to Meeting and Notice of Extraordinary Resolutions

TAKE NOTICE that the fiftieth Annual General Meeting of the British Columbia Teachers' Federation will be held at the Bayshore Inn in the City of Vancouver, commencing on Monday, April 11, 1966 at 9:30 a.m., and continuing until Wednesday, April 13, 1966 at 10:00 p.m.

AND TAKE NOTICE that at the said Annual General Meeting the following amendments to the Constitution and By-Laws of the Federation will be proposed as Extraordinary Resolutions:

1. That Sub-section (2) of Section 13 be amended by substituting the name 'B.C. Teachers Credit Union' for the name 'B.C.T.F. Credit Union.'
2. That Sub-section (7) of Section 15 be amended by substituting the name 'B.C. Teachers Credit Union' for the name 'B.C.T.F. Credit Union.'

C. D. OVANS, General Secretary.



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District Representatives will be in Vancouver for interviews for this and other positions in February, March, and April. Watch Vancouver papers for dates.

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For application form and salary schedule apply to:

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Edmonton Public School Board
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University of Alberta at Calgary

SUMMER SESSION 1966

In addition to regular courses special programmes include:

MEXICO CENTRE: Geography 312: Mexico: The Land and The People; Archaeology 391: Archaeology of Meso-america; Education C.I. 306: Social Studies in Elementary Education.

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KANANASKIS RESEARCH STATION: Geology 201: General Geology; Zoology 344: Natural History of the Vertebrates.

DEADLINES

April 1: Last day for receiving applications for admission to the University of Alberta at Calgary. **THIS APPLICATION MUST BE MADE BY ALL STUDENTS WHO HAVE NOT PREVIOUSLY TAKEN A COURSE AT CALGARY.**

April 30: Last day for registration.

For detailed information write to:

DIRECTOR Summer Session Programme
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Look What's Happening

Continued from page 180

job of the teacher is to help the child to observe, to hypothesize, to test, to revise and to realize that all conclusions, because of the very nature of science, are tentative.

Bruner's point of view has also had an effect on programs in that they reflect the basic structure of the science involved. The importance of structure in the new programs is reflected in the fact that every project has had associated with it scientists who are specialists in their own discipline. This means, in effect, that the 'big ideas' or the 'conceptual schemes' of the sciences have been supplied by the scientists, and the learning experiences for children have then been co-operatively developed with educators.

What implications do these new programs have for teachers? Probably the first and most important is the necessity of becoming familiar with them through reading and trying out units. Several of the projects have materials in commercial quantities.

What implications do these programs have for school systems? Opportunities for teachers to study

and try out new units should be provided and should have the co-operation of principals, supervisors and superintendents. School boards must be prepared to provide materials. Provincial departments of education must realize that change in elementary science is imminent and through appropriate channels should set up and encourage experimental centers where new programs can be evaluated in the classroom. Teacher education authorities must accept responsibility for acquainting elementary teachers with new programs in science to ensure that people going into the field are familiar with new trends and developments.

How well do these programs reflect the recommendations of the feasibility study regarding the spirit of discovery, co-operative efforts of scientists and educators and the urgency for new materials? Very adequately, in terms of their stated purposes and program materials produced to date. How adequately the new programs will meet the concerns of Katagiri, Vessel, and Whitehead can be assessed only as the classroom procedures reflect the new programs. □

References on request

Science projects in the primary grades can be exciting and interesting. Keeping track of the growth of a chicken leads to learning in many areas.



THE IDEAL PRIMARY CLASSROOM

R. W. LAWSON

DOES THE PRESENT primary classroom limit learning? If teachers had the ideal number of pupils under their direction, what space and facilities would be required? Would some variation of the cell-like classroom meet needs best? Would a broader learning environment more effectively set the stage for learning?

These are tough questions. To provide solid answers, even experts in primary education would probably need more facts than they have ever had a chance to get. This spring, as the first step in a class project at UBC, architecture students will ask these questions of a group of experienced primary teachers.

Under the direction of Professor Robin Clarke of the Faculty of Architecture, students will attempt to establish what primary teachers and their pupils do in school; what, in addition, they would do if the design of the building permitted; what, in very practical terms, the goals of education are as primary teachers see them. Armed with this information, students of architecture will design a number of buildings—what they would like to think of as 'learning environments.' The results of this experiment will be made available to school boards and interested groups of teachers.

Far from being an academic approach to an insoluble problem, this experiment should produce results that easily can be put into practice—results that can be tested pragmatically. The recent Department-approved changes in the secondary science laboratories, and the work being done in social studies facilities, while they did not

involve the Faculty of Architecture, began in much the same way. In addition, various boards throughout the province are embarking on very new departures in the design of school buildings. The point is that changes are being made *now*. While they can be expected to be made in a small way at first, satisfactory results will be accepted and eventually applied elsewhere.

This experiment in primary educational facilities has been initiated by the BCTF's School Buildings Committee in co-operation with Professor Henry Elder, head of the UBC Faculty of Architecture, and with Professor Clarke. The primary level was selected for several reasons:

1. The effect of an environment

would probably be easier to demonstrate at the beginning of the formal process of education than at any other.

2. Primary schools as self-sufficient units *are* being built in the province.

3. Because of the nature of their work, primary teachers probably have a clearer concept of the goals of education than any other group.

4. The Primary Teachers' Association is one of the most active specialist associations in the BCTF.

Members with ideas concerning primary facilities should communicate with Mrs. Dorothy Bates, President, Primary Teachers' Association, 141 Heather St., Chilliwack, before March 1. □

Mr. Lawson is a member of the BCTF School Buildings Committee.

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Let's Look at Lower Education

STANDS TO REASON. There has been so much palaver lately about the needs of higher education that I figure there must be a lower education somewhere around. The elementary school, maybe?

I've had a little more than my fill of the reams of publicity regarding the needs of the universities, and of the other forms of schooling past the junior secondary level. And I can't seem to see the connection between all the talk there has been about the need for more and better teacher training when at what is presumably the highest level, the university, there appears to be no need for teacher training at all.

It occurs to me that we have been looking at the wrong end of this business for too long, and I want to suggest that the public relations boys and the rest of the profession get busy on some high-pressure items regarding the elementary school.

It is a particular and perverse form of pleasure for me to take the opposite stand to the generally accepted one in education, and this chance is too good to pass up.

It is my firm belief that the emphasis, the best-trained teachers, and the best pay, should go to the elementary schools. It is obvious, to me at any rate, that no program is going to get very far on a weak foundation. It is almost trite even to say so.

I'm not suggesting for one moment that the elementary level in our school system is weak, inefficient or inadequate. What I am

suggesting is that it is operating under too many handicaps which make things tough in the higher levels.

I'd like to see working conditions in the elementary schools (entitlement, etc.) made attractive enough, and the salary scale high enough (*this* is where the maximum should be) to bring in the best teachers we have. I'd like to see enough men come into the elementary schools to make up at least 50% of the staff.

(The last suggestion would benefit the men as much as it would the classes. The stimulus of some of the bright little characters, females especially, say at about the Grade 5 or 6 level, does wonders for the adult male ego. This is in sharp contrast to the effects following exposure to the lethargic, somnolent types in the senior secondary school.)

I'd like to see far more money for elementary teachers because the work is a darned sight harder and more demanding. The average secondary school class is a breeze compared to thirty or more lively Grade 5 kids.

In case anybody is wondering—yes, I have taught in elementary schools. Yes, I have taught in an ungraded school with 21 pupils in every grade from 1 to 8. And yes, if I were starting all over again, and the salary scale was as I think it should be, I'd stay in the elementary school. Higher education, so-called, could take care of itself. □

SCHOOL DISTRICT

No. 72

(Campbell River)

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THE B.C. TEACHER

For Retired Teachers

THE NINETEENTH GATHERING of B.C. Retired Teachers will be held at the Hotel Georgia on Wednesday, April 13. The Convention Committee, under Chairman Paul Whitley, has arranged a program of unique interest to retired teachers. Among the highlights will be the report of Stan Meadows' Pensions Committee—of vital interest at this time—and a renewal of our valued association with Commissioner Howard Forrest of the Teachers' Pensions Board and with Allan Spragge, Teachers' Representative on the Board. A number of innovations are planned to facilitate reunion of old associates. This year's get-together should be informative, entertaining and valuable to all attending.

Membership and Associate Membership in the Retired Teachers' Association is extended to all covered by the Teachers' Pensions Act. In addition, retired superintendents and senior administrative personnel who were at one time members of the BCTR are eligible for membership. A special invitation is extended to such retired personnel to attend the coming convention.

If any retired teachers are precluded from attending the convention because they lack adequate transportation, they should communicate with Lorne Robb at AM 1-2608.

Attempts have been made in past years to arrange programs of social activities to encourage gatherings of retired people. So many are so involved in their various circles of friends that such activities have not been successful. It has been suggested that there are members who, through being shut in, cut off, or relocated, have now very little social life. It has also been suggested that a little organization could improve the lot of the lonely member—by organizing small groups to play cards or use the public links. Any interested should contact Bob Smith at RE 8-5592.

FEBRUARY 1966

These Teachers Have Passed Away

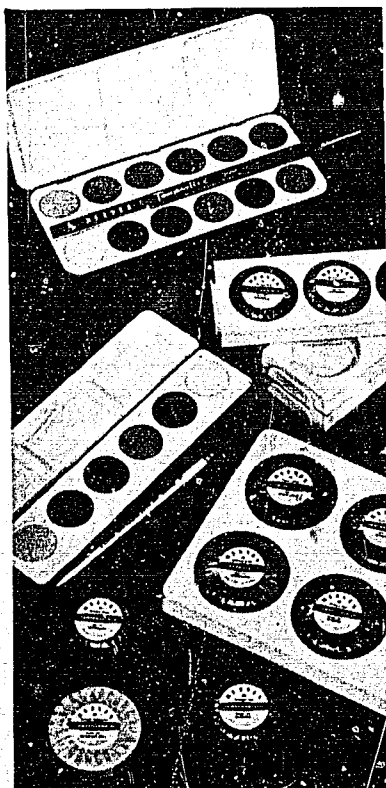
Active Teachers	Last Taught in	Passed Away
Ernest Rupert McKeown	Prince Rupert	November 29
Retired Teachers	Last Taught in	Passed Away
Miss Myra Brydon	Vancouver	December 1
John A. Clarke	Vancouver	October 3



REEVES

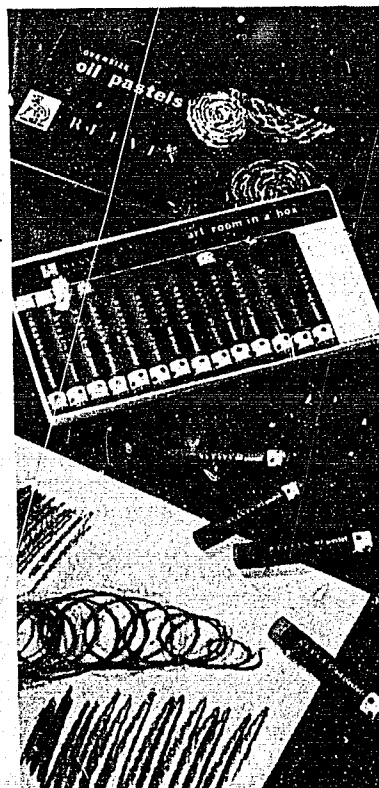
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Problems in Life Insurance—A teacher-student workbook unit of value for Business Practice and Mathematics classes. One complete unit free to a teacher; student portion available free in quantity.

Careers in Life Insurance—Available in English or French. A 24-page illustrated booklet. Discusses lifetime careers in the life insurance business. Available in quantity, free.

Should You Seek a Career as an Actuary?—Informative 8-page booklet prepared by the Canadian Association of Actuaries for students, parents and teachers. Outlines career opportunities as an actuary and education required. In English or French. Available 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 in quantity, free.

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 in quantity, free.

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

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 in quantity, free.

FILM STRIPS

Careers in Canadian Life Insurance Underwriting (Revised 1962)—Black and white. Available in English or 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 English or French. Reveals interesting facts about life insurance. 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 English or French. This strip deals with the 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 English or French. Deals with 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 English or 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.

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NEW BOOKS

C. D. NELSON

Book Review Editor

WE SOMETIMES WONDER why school boards place so many obstacles in the way of teachers, principals and librarians when ordering books for the schools. There is, of course, no provincial pattern involved. If there were, the problem could be attacked with more confidence.

As it is now, some districts allow schools complete freedom in selecting and ordering library books. Others require all orders to be 'processed' by their purchasing departments, with or without the guidance and co-ordination of a specific person—the District Librarian, for instance—who may or may not have full responsibility for what is ordered. I understand there are still some districts that adhere strictly to the *Basic List of Authorized Books for Use in the Public Schools of B.C.* (and its supplements), allowing no outside choices whatsoever.

The school library market is a sizeable one, involving the expenditure of millions of dollars annually. Can we afford the luxury of squandering this sum indiscriminately? For many years we have been accustomed to doing all our ordering from the East, i.e., Toronto. Do school boards realize that today this is no longer necessary? In Vancouver there are, currently, at least half a dozen agents and wholesalers who are prepared to fill orders for practically any book you choose. Several of them stock thousands of titles in their warehouses. All of them offer discounts, based on the size of the order, from 20% to over 30%—and much smaller delivery charges are incurred.

A frequent complaint from those schools that are allotted a per capita book grant is that they do not

receive the benefit of any discounts. For example, a school with a library share of \$500 may wind up with only \$400 worth of books, the school board having enjoyed a 20% discount.

Perhaps it is time we took stock of our book ordering procedures. There is too much at stake to go on wasting money. One obvious answer is to encourage, wherever possible, local buying from B.C. agents and jobbers.

C. D. NELSON

ART

Design Activities for the Elementary Classroom, by J. Lidstone. Davis, 1964. (Can. Agt. Moyer Division of Vilas Industries, Toronto, Vancouver) \$2.85

The booklet explains art activities in excellent detail with accompanying pictures to illustrate each step. The activities examined may be used and enjoyed by all students in elementary grades. It gives new ideas in sufficient detail to be of great value to a beginning teacher of art.

The booklet is bound in a soft cover but the pages are of good quality and the pictures are very clear.—Shirley M. Watson

FICTION

Ring Out, Bow Bells, by Cynthia Harnett. Longmans, Toronto, 1965. Price not stated

Cynthia Harnett has obviously done a great deal of research for this novel of the London of Henry V, a story of traitors who are frustrated in their Lollard schemes by the triumph of Agincourt. To those who are interested in English history, this is a very good book, although some may be put off by the plethora of footnotes and explanations. I would say that this is a novel for the discriminating student.

The format is rather sober, although there is a large number of black and white illustrations by the author. The vocabulary is adult, but the plot is suitable for the junior secondary school library for the better readers. The general appearance of the book is such that it will have to be 'sold' to the readers. At the back are questions on the chapters, but I doubt if this book will ever be used in our curriculum, although it would be a supplementary

reader. It is a good second choice for librarians with large-sized libraries.—Betty Holt

Matuk, the Eskimo Boy, by Vee Cawston. Lantern Press, New York, 1965. (Can. Agt. Geo. J. McLeod, Toronto) \$3.75

Here is a book to delight the imagination of young readers from a 'read-to' age to those who can establish their own reader identification. Primary teachers, with Eskimo projects in view, can take pleasure in recommending *Matuk* to their pupils. The book, authentically illustrated by Haris Petie, tells the story of a ten-year-old Eskimo boy whose heart is set on becoming a great hunter, like his friend, Avik. Matuk's father tells his son that he must wait until he is old enough to endure the hardships of an Arctic hunt. Always the reply to the boy's plea is wait, wait, wait. One day Matuk proves that he possesses (at least in potential) the necessary qualifications. His puppy, Tupak, falls into a crevasse in the ice-pack. How Matuk rescues him and, at the same time, is the means of providing a feast of seal meat for his village is a well-told and thrilling adventure.—M. M. Lloyd

Buck Martin, Take Centre Ice, by Frank Orr. Musson, Toronto, 1965. \$3.75

Frank Orr follows the development of an Ontario teenager through the midget and junior hockey leagues to the point where he is ready to join the NHL Boston Bruins. The author reveals a broad grasp of hockey techniques and the minor leagues. The book is much like a hockey manual with the added ingredients of action and suspense.

Off-ice characterization is shallow and at times on-ice behavior is unsportsmanlike (Or is the author just being realistic?), as with this quotation from p. 68: 'I came at you with my stick and you gave it back to me. That's the game.'

Librarians know that fiction dealing with hockey is scarce. Despite its weaknesses this book is recommended for junior and secondary libraries in need of additional hockey stories.—W. G. Nutt

PHONICS

Phonics for Primary Grades, by G. Birkett, M. Brown, J. McRae, J. Roxburgh and F. Vey. Longmans, Toronto, 1965. Price not stated

Geraldine Birkett, Margaret Brown, Joyce McRae, Jean Roxburgh and Florence Vey are so well known to teachers in British Columbia that there is no need to enumerate their qualifications and

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They have written a sound and sensible guide for the teaching of phonics as a technique for word recognition. The book has been organized by units rather than grade levels to allow teachers to adjust the program to suit particular situations and individual needs.

The program develops logically from the first unit on auditory and visual discrimination, through units on beginning consonants, short vowels, blending consonants and vowels, digraphs, prefixes and suffixes, to the thirteenth and final chapter on syllabication. Each unit contains suggestions for follow-up and review work as well as detailed instructions for introducing each new sound. The lessons are outlined with a clarity that will delight the beginning teacher, and with enough original ideas to guarantee something new for the experienced teacher.

The inductive method of teaching is stressed, with the emphasis on pupil discovery of phonics principles rather than on rote memorization of rules. As the authors state in the preface: 'Teachers must remember that children can learn sounds but that they need much help and guidance in applying them. The test of successful phonics teaching is the children's ability to use phonics in reading situations.' Throughout the book the authors stress the need to relate phonics to reading, writing, and spelling in order to achieve an integrated language program.

No primary teacher will want to be without this book.—Roberta Chivers

PHYSICAL EDUCATION

Games, Stunts, and Exercises, by Neil Ewing. Fearon, San Francisco, 1964. (Can. Agt. Clarke, Irwin, Toronto) \$1.25

This book is small and easy to handle. The cover and paper are of good quality which will withstand the constant use to which it should be put.

I was able to use each game, stunt and exercise at the Grade 4 level. The games are clearly stated and easy to interpret. I would highly recommend this book to all elementary teachers and especially to those faced with teaching physical education for the first time.—Shirley M. Watson

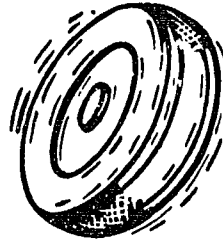
READING

Meeting Individual Differences in Reading, Ed. H. Alan Robinson. U. of Chicago Press, 1964. (Can. Agt. U. of Toronto Press, Toronto) \$4.00

This book, a report of the 1964 Annual Conference on Reading at the University of Chicago, would be of little value to a classroom teacher carrying a load of 40 pupils; it would be well-suited to the teacher of remedial reading working with pupils with specific reading problems. It would also be of value to a university student studying individual differences in reading. However, the book does give an excellent report of the conference and thus supplies current information in this important field.—Shirley M. Watson

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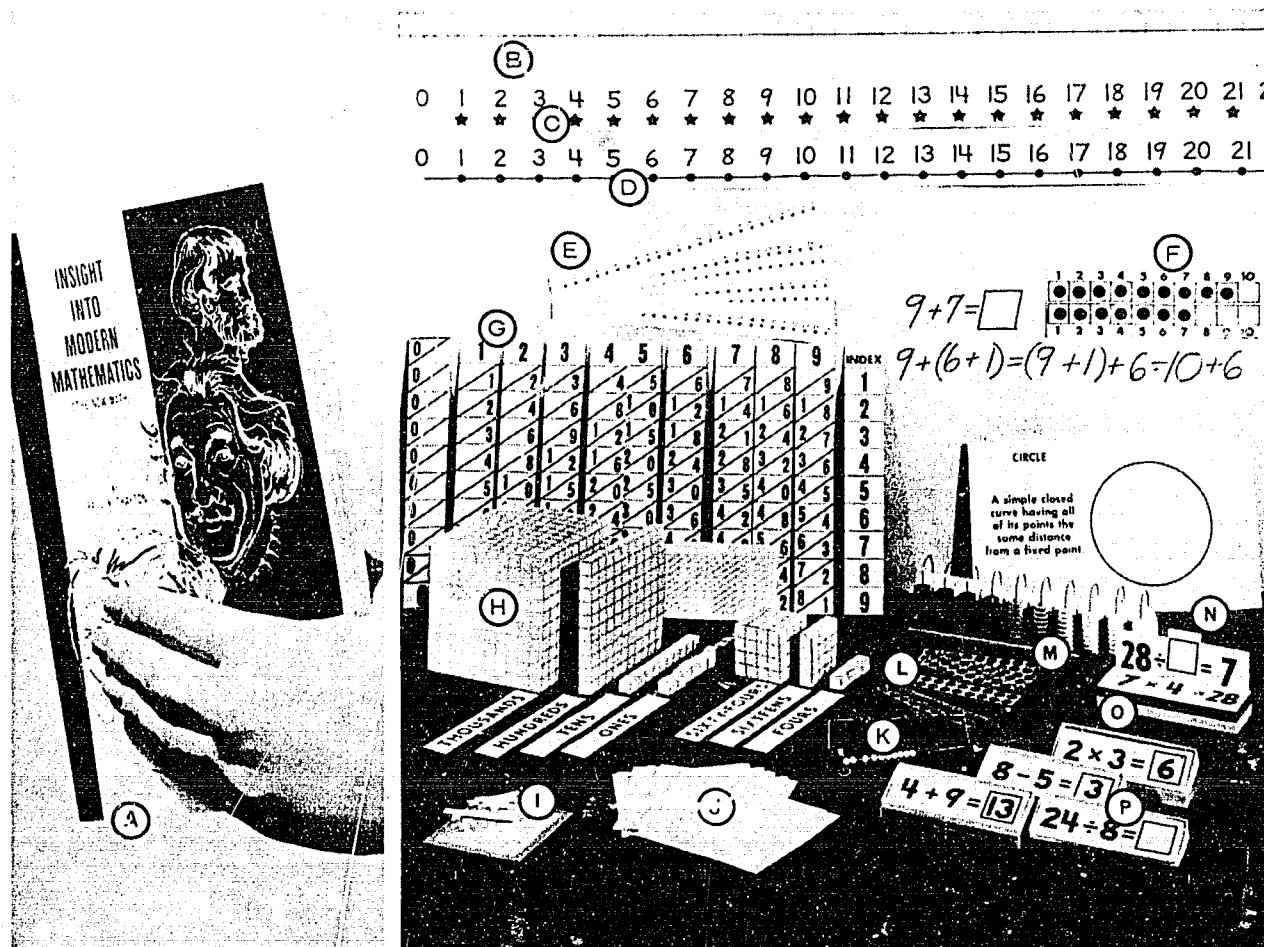
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