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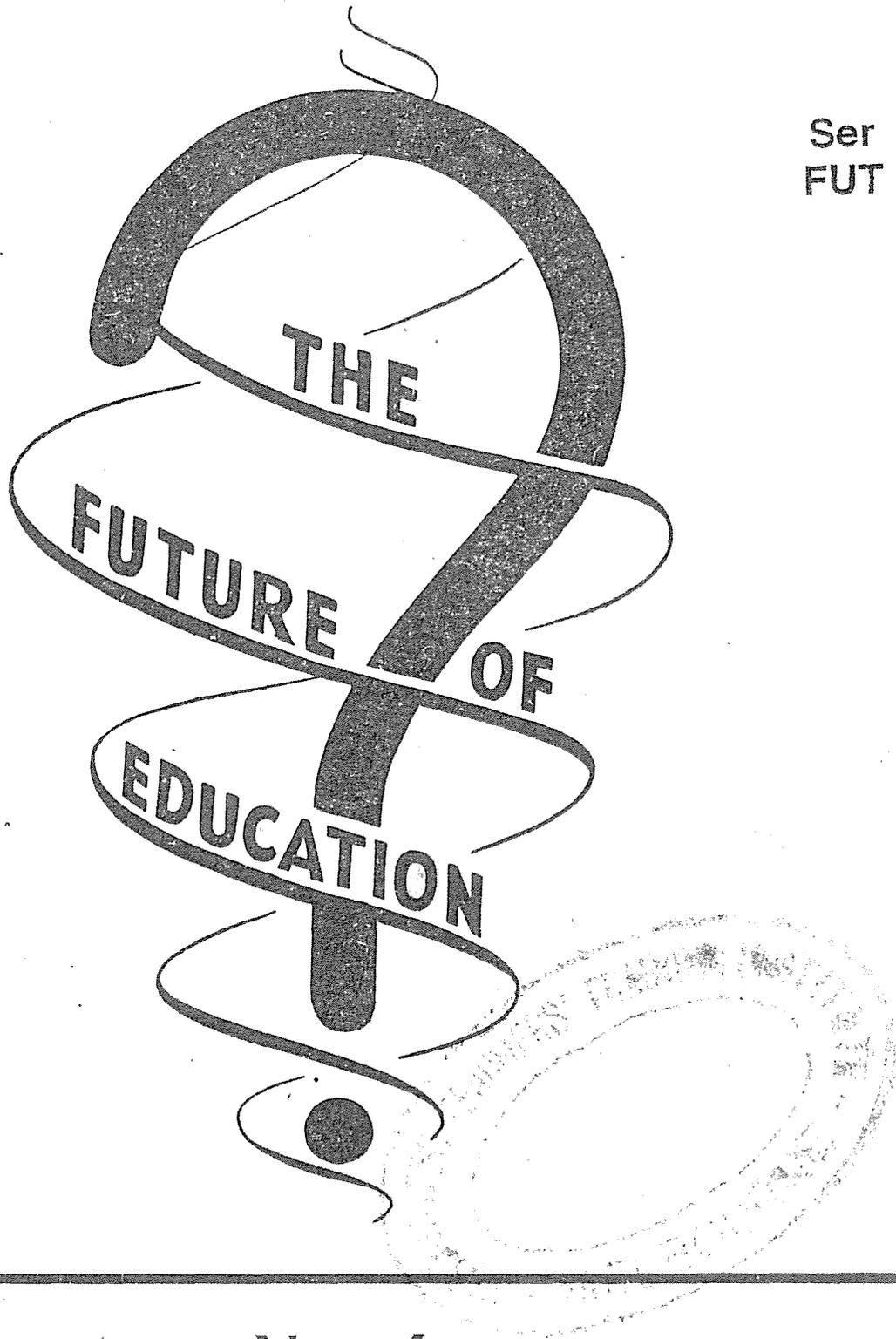
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No. 4

REFORM IN THE PRIMARY SCHOOL

**J. M. BRAITHWAITE, C. R. McRAE
and R. G. STAINES**

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THE AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH

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REFORM IN THE
PRIMARY SCHOOL

THE FUTURE OF EDUCATION

No. 4

REFORM IN THE
PRIMARY SCHOOL

BY

J. M. BRAITHWAITE, C. R. McRAE
and R. G. STAINES



AUSTRALIAN COUNCIL FOR EDUCATIONAL
RESEARCH

1943

REFORM IN THE PRIMARY SCHOOL

AT the beginning of a pamphlet suggesting some primary school reforms, we think that it may be appropriate to quote a couple of paragraphs from an essay which will be written, in 1953, by a first-year student of the Canberra College for Primary School Teachers. The title of the essay will be, 'Ten Years of Progress in our Primary Schools.'

'In 1943, primary school education in Australia was in a bad way. True, in the preceding twenty years or so, some reforms had been effected. Indeed, in the education of young children, there had been a beneficent revolution. In many infants' schools at least, the old, unhappy, monotonous repetition of tables and the A B C had been largely replaced by a rich variety of absorbing occupations. Nor had educational progress at the primary level been entirely restricted to the teaching of infants. In upper primary schools also, though by no means to the same degree, there was a changed and happier atmosphere. In every Australian state there had been successive revisions of the course of study, all expressing a shift of emphasis away from monotonous grind and repetition, and towards such occupations as art, handwork, music, and physical education. But the movement towards better things was slow. Taking it by and large, in 1943 primary school education was, as I said, in a bad way.

'In a brief essay such as this, I can mention only a few of the major defects. It must be remembered that, if we except a handful of nursery schools supported in the main by voluntary effort, the education of children below the age of six years was almost entirely neglected. So most children commenced their school life, at the age of six years, in a primary school. By critical people, the typical primary school was rightly and roundly condemned as a "sit-stillery." The average classroom was small and dismal; teachers attempted the impossible task of educating as many as fifty pupils seated in rows of immovable desks; there was gross over-emphasis of facts and skills, to the grave neglect of the much more important attitudes and ideals; the provision of books, teaching aids, tools and materials for art and craft was niggardly in the extreme; in towns and cities playgrounds were of the pocket handkerchief variety which made proper physical education quite impossible. At the time, there was current a gibe to the effect that children begin school at the age of six, ignorant and very curious, and leave school at the age of fourteen, still ignorant but no longer curious.'

Development during Primary School Years

Let us take a look at the child who, according to our essayist, is treated so badly at school, and notice how he grows during the primary school stage. Although this is a period of relative physical and mental stability, of steady rather than very rapid development, there are great physical and mental

differences between the boy who enters the primary school at the age of six or thereabouts, and the same boy leaving the primary school at the age of twelve.

Physically, the younger boy shows poor nervous and muscular control and a susceptibility to fatigue which make it certain that the beautiful writing and intricate handwork observable in some of our infants' schools are secured at far too great a cost of nervous energy. The older boy, on the other hand, has admirable nervous and muscular control and reserves of an apparently inexhaustible vitality which make it unlikely that he ever suffers, in school, from genuine fatigue.

Intellectually, though he is curious, alert, and interested, the six-year-old is extremely ignorant, uncertain of himself, and devoted to routine operations the repetition of which gives him a feeling of security and power. The older boy, though still interested and curious, is not so fond of familiar routine, and is quite ready to branch out, to experiment, and to try new things for himself.

Emotionally, the six-year-old has little self-control, is the victim of many and varied fears, and is extremely dependent upon his teacher to whom he looks to make decisions for him. The normal twelve-year-old, on the other hand, has developed considerable powers of inhibition, has outgrown his childish devotion to his teacher, and has transferred some of his main emotional attachments to other pupils.

Socially, during the primary school years, the normal child changes from a little individualist very

dependent upon a mother-substitute to a member of a social unit, led by socially dominant children, whose members are extremely interested in and loyal towards each other, and not very interested in anyone else.

The Function of the Primary School

We have seen that, during his primary school years, the child grows in four main ways—physically, intellectually, emotionally and socially. The function of the primary school is to ensure successful growth of all four kinds. It is a fair criticism of the average school that it over-emphasizes intellectual growth and pays scant attention to meeting the physical, emotional, and social needs of its pupils. We can make this point clearer if we list the accomplishments and achievements which the child should be able to show when he leaves the sixth class to enter the secondary school. We have borrowed the list from R. H. Lane,¹ adapting it slightly.

Physical Growth

1. He has attained a normal physical development within the limits accepted for the average twelve-year-old.
2. He can use tools with sufficient skill to produce articles of use and beauty.
3. He can use his body easily, effectively and gracefully in free and directed games, in dancing, and in dramatics.
4. He has formed correct health habits and has attained a pride in maintaining maximum bodily efficiency.

1. *The Teacher in the Modern Elementary School*, p. 5, Houghton Mifflin, New York, 1941.

5. He has mastered the mechanics of speech, so that he speaks easily, effectively and correctly.

Intellectual Growth

1. He can read, orally or silently, any book at sixth class level with reasonable speed, accuracy, comprehension and enjoyment.
2. He can use easily and effectively the informal speech current in Australia, in his daily conversations.
3. He can use with equal success the higher level of speech necessary on more formal occasions, e.g., when making reports to his class.
4. He can write a business or friendly letter, observing those standards of composition, spelling, and handwriting which are possible of attainment by the normal twelve-year-old.
5. He can solve with reasonable speed and absolute accuracy any arithmetical problem which has social value for him.
6. He has mastered such computational skills in the fundamental processes of addition, subtraction, multiplication and division of whole numbers, easy fractions and simple decimals as are necessary for the solution of his arithmetical problems.
7. He has a fairly thorough knowledge of the geography of Australia, and knows a good deal, too, of world geography.
8. He knows such major facts and has such understandings of the story of Australia and the world as may be reasonably required of a twelve-year-old.
9. He has a clear understanding of the way in which science contributes to our daily life.
10. He has an effective grasp of the ways in which arts and crafts contribute to our everyday life.

Emotional and Social Growth

1. He can 'get along' happily and successfully with other children and with adults.
2. He likes people and likes to be with them.
3. He finds satisfaction in being a member of a congenial group.
4. Other members like to have him in the group.
5. He is open-minded and tolerant.
6. He accepts responsibility, displays initiative, and is resourceful in an emergency.
7. He has mastered the conventions demanded by ordinary social situations.
8. He displays poise and self-control under criticism and opposition.
9. He responds readily to beauty, seen and heard.
10. He has accumulated sufficient inner resources to fill his leisure time with experiences appropriate to his age.

The Defects of the Average School

If we accept that list of accomplishments which the child should show at the end of the primary school stage, it is immediately clear that the primary school of to-day is only partially successful in achieving its objectives. When we consider the low standard of the work in physical education, the absence of playing fields and gymnasia, the scant provision for medical examinations, the sketchiness of health education, the nature of the average school lunch and the conditions under which it is eaten, the failure to provide tools for the development of skills, we must conclude that our primary schools fail to meet the physical needs of their pupils. We still tend, in the main, to regard education as something to be

got from a book, accepted in a sitting position, and tested by a written examination. We do not yet realize that L. P. Jacks had the right idea. 'If I had my way as an educator, I would not spend all my efforts on direct attacks upon the mind by book learning and by academic methods. I would seek rather to outflank the mind by getting round the body. . . . I would get at the mind less through the spoken word that enters by the ears and more by the skill that comes out of the five fingers, and not only from the five fingers, but from the body as a whole.'

For the child's emotional and social growth, the provisions of the typical primary school are even scantier than those made to meet his physical needs. We simply do not give the social education necessary for young democrats. With a few outstanding exceptions, our schools are not characterized by that self-government which alone gives education in civic habits. We pretend to educate for freedom, but fail to educate in freedom. We do not allow to youngsters the necessary opportunities for accepting responsibility and taking the initiative. As Rugg writes: 'Education is something you do before you enter your life-work. It is preparation for life. . . . It is a getting-ready, not a doing-now.' Because it is to such a degree simply 'a getting-ready,' it fails to meet the child's emotional and social needs.

At least, it may be protested, the primary school makes adequate provision for intellectual growth. But this belief, too, we would be bound to question. True, this century has seen considerable improve-

ments in the primary school curriculum. Nevertheless there is need of further great reform. There is great need to infuse into the curriculum more reality and activity. Our courses of study contain much outworn, unnecessarily formal material. We have more or less moved with the times in our distribution of school hours over the various 'subjects' of the primary school. But there is need of revision of the kind of English, the kind of mathematics, and the kind of history that are taught, and there is need, too, of revision of the ways in which they are taught.

Quite rightly, our primary schools devote much time to the teaching of the mother tongue. But it is not always the right kind of English. For example, they neglect oral composition in favour of written, though the former is obviously the more important. After they leave school, most pupils will write very little. For the rest of their lives they will be judged by their speech, both by what they say and by how they say it. We need much more oral composition in our schools. By debates, lectur-ettes, morning talks, class discussions of group projects, mock broadcasts and the like, we must give to our rather inarticulate young Australians more confidence in addressing their fellows.

We must do better, too, in the teaching of reading. For one thing, our pupils do not even see enough books. The average American or English teacher, placed in charge of an Australian class, would scarcely know what to do. He would look around for what he regards as essential equipment, a generous supply of books, and the books would not be there.

It is no wonder that Australian teachers are good at oral instruction. They have to be. For want of books, the Australian school tends to be a talking school. For many Australian children, reading material is restricted almost entirely to the monthly school magazine and the little text-books of History and Geography designed to meet syllabus requirements. Though there are hopeful signs of better things, for example, in the districts of New South Wales which, in the last few years, have established central libraries, much more remains to be done before we can claim to give adequate attention to the teaching of reading.

We must do better, too, in the teaching of poetry. All primary school teachers give poetry lessons; few succeed in developing real appreciation. They 'treat' their one or two poems each week, take them to pieces and sometimes forget to put them together again, and they leave many of their pupils with a hearty dislike for poets and their works. For anyone with a love of poetry, to inspect its teaching in schools is a melancholy task. A simple test frequently used by one of us was to have children compare two verses, and say which is the better. For example:

And still of a winter's night, they say, when the wind is in
the trees,

When the moon is a ghostly galleon, tossed upon cloudy seas,
When the road is a ribbon of moonlight over the purple
moor,

A highwayman comes riding,
Riding—riding—

A highwayman comes riding, up to the old inn door.

And every winter evening, when I look out to sea,
The robber comes a-riding—
Riding—riding—
Along the road a-riding behind the lilac tree.
The robber comes a-riding—
Riding—riding—
The robber comes a-riding—
Ta-rum, ta-rum, ta-ree.

The first, of course, is poetry, and the second sheer drivel. One is dismayed at the frequency with which fifth and sixth class children prefer the drivel.

Asked what we would do to increase children's appreciation of poetry, we would make several suggestions. We think that poetry should not be restricted to set lessons, but that, many times during the week, poems should be read to children and recited by them just for fun. We would have greater use of the verse choir, for this is one of the best ways of developing a love of poetry. Above all, perhaps, we would encourage children to write verse. Even if they fail dismally, producing only the veriest doggerel, they will get an insight into poetry which will enhance appreciation. And in all probability, they will not write mere doggerel. Most children can write passable verse while their prose is still appalling.

We have written something of the need of reform in oral composition, in reading, and in poetry. We could willingly stay with English, and say something of desirable reforms in the teaching of spelling, grammar, and written composition. Or, turning to

another subject, we could, with savage delight, criticize the over-emphasis on mathematics, and the crazy examples we still set, so remote from real life. We could find equal pleasure in attacking the mere fact-collecting and verbalism which, in so many schools, pass for teaching of the social studies, and it would afford us considerable relief to express our unanimous and extremely low opinion of the formalism which takes all the pleasure from so many lessons in music, in art, and in handicraft. But perhaps we have written enough to show that, even for intellectual growth, the average primary school makes inadequate provision.

Why we have failed

If it be asked why our primary schools have failed to perform their proper function, we would advance as the main reason their pre-occupation with the business of 'preparation for life.' For historical reasons, and because of traditions from which we are slow to escape, in Australia as elsewhere we continue to attach excessive importance to 'the three R's,' and the primary school tends to function as if it were still the unique institution for the abolition of illiteracy. As a result, instead of meeting the needs and interests of children, the curriculum and teaching methods of the average primary school are in the main designed to impart facts and a rather narrow range of skills. Education for these is efficient, but they themselves, as educational ends, are not sufficiently broad in scope. The consequence is a depressing paradox. Our schools achieve success, and yet

they fail. They develop fairly efficiently the tools of learning; in that they succeed. But they seldom create in pupils the necessary desire to use the tools, and in that they fail. So we have the anomaly of pupils leaving school equipped with the fundamental knowledge and skills necessary for further education, but without any very positive desire to go on learning. And of what avail is schooling if, in seeking to develop the machinery of education, it fails to develop the dynamic and the motive power that will ensure its use?

The Needs and Interests of the Primary School Child

So far we have contended that our primary schools have failed to achieve their proper purpose because they have failed to meet the needs and interests of their pupils. Perhaps we should next indicate what these needs and interests are. For, as Cyril Burt very truly writes: 'In the past, both psychological theories and our educational practice have been excessively intellectualistic. Intellectual processes will seldom function to their full capacity unless there is an emotional incentive behind them. The child never works as well as when he is enthusiastically interested. Thus one of the most important groups of characteristics which the teacher must take into account are the child's own natural interests.'²

If we asked a group of observant primary school teachers to name the predominant interests of their pupils, we would probably find about five interests

2. Board of Education Report on *The Primary School*, p. 268.

appearing in every list. These would be a desire for activity, an insatiable curiosity, an urge to surpass others, a love of collecting, and a passion for making things with their hands.

Children delight in activity and in freedom to *do* things. Their inner impulses continually seek expression in motor action. They are fountains of pent-up enthusiasms which must escape; they are 'reservoirs of motor energy urgent for discharge upon their environment.' It therefore becomes the teacher's responsibility to ensure that his classroom procedure permits the expression of the pupils' inner urge for activity, and, at the same time, to see that this urge expresses itself in ways that are truly educative.

The primary school child's thirst for knowledge is deep indeed, and one of the teacher's main functions is to satisfy this curiosity with worthwhile materials. The task should not be unduly difficult. Children's tastes are very catholic; they are interested in almost everything. They want to know about people, and are particularly fascinated by life in foreign lands, where the civilization is different from our own. They want to know about the natural world, particularly (at first) about living things (though their interest soon embraces the universe). Indeed, any teacher who finds persistent difficulty in interesting his pupils should seriously examine his curriculum and methods. The blame can hardly lie with the children.

During this primary school period, acquisition is a third strong tendency. Children are interested in

collections of many kinds. The tendency is much appealed to by advertisers, who sometimes show themselves to be better practical psychologists than teachers. In schools, we should make fuller use of this collecting tendency. For example, geography can be taught through stamp collections, history through collections of pictures, and elementary science through collections of rocks, butterflies and other specimens. To teachers who have never taken educational advantage of the tendency, the enthusiasm which can be developed will be astonishing.

A fourth strong tendency is self-assertion. The primary school child delights in asserting himself against his companions, his sturdy individualism finding expression both in work and play. In the past, the school has made much use of this motive, pitting pupils against each other. Nowadays it is frequently questioned whether the motive is a legitimate one. At the risk of seeming reactionary, we express the opinion that it is, provided proper safeguards are used. We know that many teachers, and an even greater number of parents, abuse the motive. We know that the effort to surpass someone else, to gain high marks or 'top place,' can destroy the possibility of the development of interest in school work for its own sake. Yet, provided the youngster also receives adequate education in social and co-operative living, we can still see a place in school life for appeals to the urge to excel.

The fifth outstanding characteristic of this period is constructiveness, the child's interest in making things, which, as Burt so truly writes, 'has all the

characteristics of an instinctive urge.' This tendency has, of course, long been recognized as one of great educational significance, but it seems clear that even further advantage could well be taken of it. We fear that there is much substance in Burt's criticism. 'The value of handwork as such is now sufficiently realized; but teachers are still prone to impose upon the child a logically graded syllabus whereby the junior is expected to begin by learning the qualities of materials and a technical dexterity with tools. Thus the child is required to make humble but useful domestic articles—mats, brackets, soap-boxes or trays—things which appeal more to his parents than to himself and in which the great aim is accuracy and finish on an unambitious scale. I would suggest, on the contrary, that the selection of work should be guided far more by what the child wants to make than by what the teacher would like him to make, and that constructional work should be employed far more freely to illustrate the informational subjects of the curriculum—geography, history, literature and science.'³ In other words, in the primary school handwork should be, not just another subject, but a pervading method.

The Way of Reform

The typical primary school, we have contended, is too much concerned to impart certain knowledge and skills which are regarded as essential preparation for life, and too little concerned to meet the fundamental needs and interests of children. It remains

3. Board of Education Report on *The Primary School*, p. 274.

EXPERIENCES IN LEARNING—THE

1. Homes in the

Ideals and s
Sharing in cor
Studies in ho

14. Other occupations in the community.

Transport, manufacturing, generating power, timber getting, fishing, insurance, etc

13. Services to help the farm.

Blacksmith, canning factory, etc.
Projects based on visits.

12. Farms in the community.

Crops, ownership, management, machinery, marketing.
(Links with other headings, especially 4, 5 and 6.)

11. Natural resources of the district.

10. Nature.

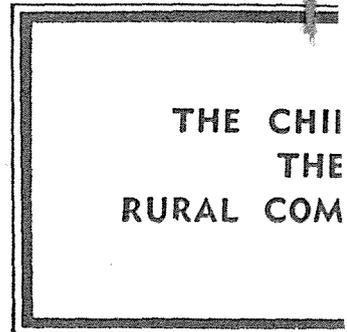
Rural life, plant life, land forms, weather records.

9. Historical information about the community.

Relics of pioneers

8. Agencies of c the commu

Books, Libraries
Art, Music.



NOTE: The studies and occupations suggested in the diagram vary considerably material which suits the age and interests of his pupils. For example, under 1 and 2. As their experience widens, the activities suggested studies the ways in which his community endeavours to satisfy its many social movements which contribute to the betterment of life.

-THE CHILD AND HIS COMMUNITY

the community.

and standards
in community life.
in home life

2. The school.

The school community
School buildings.
Activities.
School and the community

3. Community organizations.

Church, and related groups.
Boy Scouts.
Farmers' Clubs.
Clubs for community improvement

4. Health.

Hospitals, Red Cross
Dental clinics.
Dairy inspectors.
Stock inspectors.

5. Communication.

Postal, Radio, Press, etc.
Developments of these aids to living.
Transport
Visitors to the community.
Links with other centres.

6. Government.

Government buildings
Government services.
Local government.,

7. Professional services in the community.

Medical, legal, etc
Community leaders.

**CHILD IN
THE
COMMUNITY**

of culture in
community.

aries,

rably in complexity. The teacher would need to select, from the outline, nple, young children would naturally be interested in the studies suggested sted under 3, 4, 5, 10, 11, and 12 would make more appeal. If the child any needs, he is in a better position to appreciate the significance of wider

to outline the way of reform, to indicate, in general terms, what should be the shape of things to come.

Primary school pupils, we have seen, are normally active, and their activity expresses itself in a search for knowledge, in collecting possessions, in a striving for recognition, and in a veritable itch to construct and to create. If the curriculum is to be adapted to these basic needs, it must be infused with more life and reality. At present, many—indeed most—of the occupations provided for children are too passive. In our schools, listening should be in large measure replaced by worthwhile, purposive activities.

Our first problem, then, is to evolve an activity curriculum. By the progressive teacher who has the concept of a truly child-centred school, a rich variety of suitable activities may be introduced. Physical education, interpreted broadly 'to include not only exercises subserving physical health and efficiency, but also those which tend to produce good carriage and graceful movement,' provides such activities as games, dancing, eurythmics and mimes. Music and artistic activities may be employed as a vehicle for all the social studies; written and research projects offer a wide range of varied occupations which conform to the two great requirements of purposefulness and enjoyment. Oral activities in which the children's powers of self-expression are developed should be exploited in lecturettes, dramatization, recitation, verse-speaking, story-telling, debating, play-reading and pageants of various kinds. From the sciences, a wealth of experiments of a simple type may direct the curiosity of the primary school child to educative

ends. The art-crafts, like leather, cane and raffia work, weaving, stick-printing, potato- and lino-cutting, and bookbinding may supplement industrial arts such as wood-work, metal-work, printing, soldering, radio-mechanics and simple engineering. Finally, where the environment permits, agricultural pursuits will provide activities for the primary school curriculum.

Our second problem is the fashioning of a curriculum which is calculated to develop to their fullest the personalities of the pupils. This will best be achieved by implanting desired ideals and positive attitudes to school and social living. In order that it may be achieved, the curriculum must be framed in terms of 'real-life experiences.' It is out of these and not out of verbal instruction that attitudes and ideals are built, and the experiences should be vital, meaningful, and enjoyable, interesting to the child because he is a child, and not designed mainly to provide him with something he may need as an adult. As Dewey expresses it: 'The school must present life, life as real and vital to the child as that which he carries on in the home, in the neighbourhood, in the playground.' It must be a place 'where life, real experiencing, goes on.'

To develop the attitude of co-operation, for example, the pupils should participate in experiences which demand their unstinted sharing in the achievement of some goal which is vitally meaningful, and which is really desired by them. For any one pupil, it may be a part in a social project, requiring him to join with others in the production of a play, or in

building a physical map of Australia, or in a team game or in the school orchestra, or in any one of a host of interesting tasks which cannot be completed without co-operation between pupils. Tasks which the pupils feel moved to undertake represent 'real-life experiences,' and it is out of a series of these, properly adapted to the increasing age of the pupils, that they build up, within the structure of their own personalities, the co-operative attitude which is so desirable.

The problem in reforming the curriculum, we are convinced, is therefore that of providing activities as vehicles of instruction on the one hand, and, on the other, that of providing those real-life experiences which are basic to the development of attitudes and ideals, and ultimately of personality itself. In this conclusion we find ourselves in entire agreement with the English committee responsible for the Board of Education Report on *The Primary School*. The committee adopted the following as one of its resolutions: 'We are of the opinion that the curriculum is to be thought of in terms of activity and experience rather than of knowledge to be acquired and facts to be stored.'

A curriculum conceived in terms of activities and experiences, and not in terms of knowledge and facts, will require a breaking down of the present rather rigid divisions between the various subjects. Frequently, in real life, the fields of study regarded in school as separate subjects merge into one another, and integrate around some central task which the individual wishes to perform. For this reason, there

has been a growing tendency to integrate portions of the curriculum around real-life tasks, and, in the reformed curriculum, the central core will doubtless be integrated. Some aspects of Literature, all the History, Geography, Nature Study, General Science, Art, Handcrafts and Artcrafts will be fused into a single subject known as Social Science, and designed to develop the major social concepts, to create positive attitudes to social living and education, and to build such ideals as honesty, co-operation, responsibility, freedom, truthfulness and justice, upon which the common life of our society rests.

The details of the integrated curriculum will be worked out by enterprising teachers, directed by those who understand and who are endeavouring to implement the new policy. While there will be considerable adaptation to local conditions, all schools will have these points in common; they will start with the child in a social environment; they will endeavour to stimulate and guide a healthy mental, physical, and social growth by teaching pupils how to live in an ever-expanding environment (home, school, community, nation, empire, world); and they will assist the child to shape his environment 'towards ever nobler ends.' The framework of a curriculum of activities and experiences which might well be typical of the reformed school in a rural area is represented diagrammatically on pp. 20, 21. Modifications that would adapt it to an urban area could readily be made.

When we examine the diagram, the first feature to impress us is the prominence given to parts of the

child's environment—the child and his home, his school, his immediate neighbourhood. Again, the parts of the environment are arranged as experiences according to their complexity, and the child is introduced to them when they can most usefully aid his development. For example, early studies of the home and school involve comparatively few people, comparatively simple relationships and well-defined groups and duties. Later studies cover more groups and more complex organization. It is not necessary to spend prescribed periods of time on any of the suggested experiences. Movement from one to another should be determined by the attitudes of the pupils, the satisfactions they find in their work, and their desires to extend present interests to others growing from them.

It will be noted that all aspects of the child's environment are given a human setting. We believe that the school should stress the social setting. We feel that this approach will enable the child to understand and thus appreciate the life around him. Active participation in social forms of learning is the best preparation for citizenship and the best means of personal growth.

One good feature of the diagram is its indication of how the study of human needs may best be approached. The clear intention is for the young learners themselves to realize the wants which have to be met in society, and to realize them in a setting which is familiar. There comes to mind a very effective piece of work done in a small, isolated country community under the title, 'Caring for the

Health of the Community.' The teacher wisely commenced his study with the small Bush Nursing Centre near his school. This paved the way for the study of hospital and medical services, but these were not introduced until the pupils became so keen about the problems solved in the Bush Nursing Centre that they desired to go much further afield. Similarly, children attending another school had problems in travelling along a certain road which presented grave difficulties in wet weather. They decided to ask the shire engineer to visit the school in order to describe the work of his department and to reveal his plans for the improvement of the road in question. This is a method of initiating study by a consideration of real problems. The problems may be arranged in projects, activities, or units of work. We have become so accustomed to the conception of the school as a place where knowledge is communicated by way of instruction that it is difficult for us to evaluate it as a place of real experience. It is necessary to stress the fact that knowledge which is not desired by the children to meet their needs of physical, intellectual and social growth can have little value in aiding development.

The diagram suggests also how teachers may effect that integration of the curriculum to which reference was made above. It will be seen that experiences are suggested as 'wholes.' The children undertake a 'whole experience,' e.g., the farms of the community, and a variety of skills, activities and pieces of knowledge acquires meaning and purpose by being related to this central theme. How far it is desirable to

unify the components of the curriculum in this manner is for the teacher with his specialized knowledge to decide. Certainly Social Studies experiences should be presented in bigger units than is usual at present.

There can be little doubt about the 'child centred' character of our diagram. In spite of all the pleas for the 'child centred school,' too frequently the lesson material or the teacher becomes the main interest. The diagram is, then, a salutary reminder of the important fact that the school's purpose is to provide for the development of the child.

Again, with the ideas expressed in the diagram continually in mind, the curriculum could not become static and out of touch with real things. The plan is conceived in terms of lively investigation, or, to repeat the words of the authors of *The Primary School*, 'in terms of activity and experience rather than of knowledge to be acquired and facts to be stored.'

Reforming Methods of Teaching

It is not, however, so much the curriculum itself as the manner in which it is interpreted by the teacher that makes possible its adaptation both to the interests and needs of the pupils and to the development of the desired attitudes and ideals within the structure of the pupils' personalities. 'With the same book to read, one teacher can teach facts, and the other how to read and think; one can cram the memory with meaningless dates, the other

can not only make the past live, but can relate it to the present and build a bridge to the future.' Teaching methods, then, are of singular importance in considering reform in the primary school. With a new curriculum, interpreted as activity and experience, the traditional methods of oral instruction are incompatible. Mass instruction in specific subjects is out of harmony with the whole conception of child-centred education; for the mind, as we have seen, does not apprehend its experience and its purposeful activity as composed of separate subjects, nor is personality developed by the mere acquisition of knowledge.

The method of teaching and learning which will be found most satisfactory is that advocated by Dewey, Kilpatrick and other leaders of 'progressive education.' It was known at first as 'the project method,' and later as 'the activity method.' The new name was adopted because the term 'project' had been abused to mean merely some interesting manual occupation introduced by way of occasional relief from formal orthodox teaching. The genuine adoption of the progressive method means much more than that. It means the organization of a great part of the class programme—some would say the whole of the class programme—round a unit of work which is developed through a wide range of absorbing activities planned and executed by the pupils themselves.

Because of its social significance, and its suitability for the development of social concepts and social attitudes, such a topic as 'Australia and the Outside

World' makes an admirable unit of work and lends itself to the use of activity methods. The central purposeful objective may be to impart an understanding of the interdependence of the Australian people and those of other lands. For purposes of organization, the unit of work may be broken into sections, to which, at a meeting of the class under the direction of a class leader, different groups of pupils may be assigned. One group may undertake an analysis of our wool industry in its relation to the central task. Through a series of committees, the whole of this part of the work is allocated to appropriate members of the group, and their duties are expressed as purposeful tasks involving some of the activities already outlined. One committee, for example, may decide that its members would like to investigate the place of the wool industry in Australian life to-day, and to examine the steady growth that has culminated in its present important position. Members of this committee will then engage upon such activities as the composition of a book of the wool industry, involving essays, notes, cuttings, sketches and pictures, or the preparation and delivery of lecturettes on such topics as 'What the Sheep means to Australia.' A debate on 'Real and Synthetic Wool' may follow a visit to the woollen mills or a wool shed, if either exists in the neighbourhood. Radio talks on 'Wool for the World,' and a strip-film from pictures and drawings of aspects of the industry, may provide further activities and real-life experiences which will yield the desired educational values.

Meanwhile other committees, inspired by their leaders, will be enthusiastically undertaking similar activities on other aspects of Australia's relations with the outside world, and periodical meetings will be held, during which the information collected will be explained by a spokesman for the committee, and class discussions will relate the separate investigations to the great central theme round which all the individual and group activities are organized. The whole undertaking may culminate in the school auditorium with the production of a play, the exhibition of hand-work, the reading of essays and poems, and the delivery of lecturettes, while pupils from other classes act as audience.

Teaching Methods in the Skills and Drills

For the acquisition of the basic skills, there is a growing belief that the activity method is not sufficiently systematic, and that it leaves undesirable gaps in the pupils' knowledge and abilities. It seems preferable, therefore, to employ the method of graded assignments. Whatever plan of classification is adopted, the range of mental age⁴ in any class is considerable. Similarly, the reading age, the spelling age, and the arithmetical age of the members of a normal class of 11-year-old pupils spread over perhaps 7 or 8 years. When it is realized that the best 10 per cent. can perform several times the work of the lowest 10 per cent. in every lesson, the need of a vertical organization within the classroom be-

4. If a child aged 9 years obtains the score in an intelligence test which is average for a 12-year-old child, then the child is said to have a mental age of 12 years.

comes evident. Individual and group learning and teaching, based on a series of graded assignments and with facilities for self-teaching and self-testing, should replace the more formal and routine methods of mass instruction.

The Winnetka Plan, with its graded units of work, provides the most scientific organization. Under this plan, the arithmetical, reading and spelling ages of all pupils are determined by standardized tests, so that the instruction may be truly adapted to the individual needs of the child. To take arithmetic as an example, the entire course is arranged into a series of goals, and the goals are divided into separate steps. At the beginning of each step is an exposition of any new material. Following this are four sets of parallel assignments, known respectively as sets A, B, C and D, with answers appended. Pupils study the initial exposition and then work the examples in set A. If self-correction proves that these are correct, the pupils move on to step 2, but if several of the examples in set A are incorrect, they work set B, and if necessary, sets C and D, before proceeding to step 2. Each of the other steps of the goal receives similar treatment. At the end of them all is a test which the pupil undertakes. If his correction of this reveals that he has mastered all the processes in the goal, he takes the teacher's test, a pass in which permits him to proceed towards the next goal. Often, however, it will be necessary for him to practise the processes in which errors have been made, and to check his progress in a second and third 'pre-test' before taking the teacher's test.

Spelling and reading, too, should be largely individual. For the latter, pupils should be grouped on the basis of their reading age. Provision of a diverse assortment of books arranged into groups corresponding with pupil groups allows the child to select and read books properly adapted to his own particular level of achievement.

The method of individual assignments outlined above eliminates the antagonism to tool subjects which is often produced by the monotony of unmotivated drill. There seems little doubt that it will be the method of the future, but, for its satisfactory introduction, there is need of a service bureau which would provide the text-book material arranged in appropriate goals and groups.

Suggested Time-Allotment

In order to secure a well balanced allotment of time, it is suggested that the day might well be divided into four parts, and different kinds of activities and experiences provided for each period. The session prior to the morning recess, because of the freshness of the pupils, might be devoted to individual work in the tool subjects—reading, composition, spelling, language, writing, and the elementary processes of arithmetic and mensuration.

From the morning recess to the luncheon recess, activity work in the social studies might occupy the time. During this period, pupils would be engaged upon written, artistic, oral, musical or research activities, all related to the central theme of the correlated unit of work.

The afternoon might also be divided into two periods of differing kinds of activity. The first hour might be devoted to those activities which may be classified as 'expressive.' In this category are singing, drawing, painting, modelling, physical education, dramatization and story-telling. All of these allow the pupil an opportunity for the genuine expression of his own creative impulses. They may or may not be associated with the social studies unit.

For the last hour of the day, a second type of activity is suggested, although it is admitted that the line between it and those expressive activities is not very clear. Since, however, the problem of training for leisure seems likely to become even more pressing than it is to-day, every curriculum should contain activities related to the development of hobbies and other leisure-time pursuits. Artcrafts, handcrafts, and horticultural pursuits have already gained recognition as suitable recreative activities. They should be supplemented by the industrial arts and, where possible, by bushcrafts and by field excursions.

It should perhaps be emphasized that our time-allotment is merely suggestive. Progressive teachers will work out their own plans. Indeed, they are already doing so. We quote a few lines from an article⁵ descriptive of a small school in which the activity method has been whole-heartedly adopted.

We have solved the problem of the time-table in large measure by its abolition. This is possible because so much of our work is done individually and by small groups. It

5. *An Activity Experiment in a Small School.* By I. E. Young, Forum of Education, Vol. II, No. 1.

is quite usual to find a few pupils engaged at arithmetic, others at art, some out of doors doing pottery, several types of handcraft in progress, and yet another group preparing a Social Studies scene such as a Papuan village. Careful assigning makes this possible. There are certain daily tasks, for example, in arithmetic and magazine reading. Each pupil knows that these are to be done, though he enjoys a measure of freedom in deciding when to do them. In addition, it is clearly understood that Monday is our writing day, Tuesday the day for composition, Wednesday for Social Studies recording, and so on. For the rest, the time-table is made as elastic as possible

Co-operation in the School-Camp Movement

As Australia becomes more and more the home of secondary industries in which repetitive machine work dams up the creative energy of workers, direct education for active leisure will become an imperative necessity. The movement towards school camps may well be used to provide that education. Eminently suitable for primary school children as for adolescents, these camps, through the recreative activities which they provide, must inevitably form habits and engender attitudes that will launch pupils upon a life of active, creative leisure, and help to weld the school into the life of the community. In the organization of the primary school of the future, such camps should be, not a privilege or a luxury, but a regular part of the school routine.

Conditions of Work. Buildings, Equipment, Size of Classes

If we are really to implement a better curriculum and to adopt modern methods, reform will be neces-

sary in conditions of work. At present, the teacher's conditions too often make a good job extremely difficult. Compared with those of 20 years ago, to-day's teachers are better educated, teaching methods are better, courses of study are vastly improved. But up and down our country the use of the better methods and the implementing of the improved courses are rendered extremely difficult by dismal, out-of-date buildings. If we are really to have a new educational order, one of the first tasks will be the remodelling, extension, or reconstruction of most of our schools. In very many instances, the best initial instrument will be dynamite.

Not only must our school buildings be better, they must also be more generously equipped. Our buildings are no worse than England's, probably not quite as bad. But in equipment, in the provision of books, teaching aids, tools and materials for art and craft, we lag far behind England, and still further behind progressive American states. For want of essential equipment, there is still far too much talk and chalk in our schools. For the same reason, the teaching of handwork, of art, and of physical education are by no means what they should be, nor what they might be, if our teachers had adequate facilities.

The other main point here is that classes are still hopelessly large. They are large enough, in all conscience, in England and the United States, where the average size of primary school classes is about 35. In Australia it is about 40. That means, of course, that the average town and city classroom house well over 40 children, and far too many, probably 7 or

8 per cent., hold over 50. The point need not be laboured. If a teacher's class numbers more than 30, the teacher simply cannot give education as it is now conceived.

What of the small Country School?

Something should be written concerning the small country school, which is still the typical Australian primary school. Consolidation offers one line of advance. Probably most people would agree that modern education can best be given, not by a single teacher to a dozen or twenty children, but in a larger school with a variety of special rooms and teachers, and with the more abundant equipment which such a larger school can command. This is the solution which is being adopted, and apparently with great success, in the Tasmanian Area School.

However, when everything possible has been done in the way of consolidation, there will still remain, in the larger and less populous States, many one-teacher schools. Of these, we are by no means disposed to despair. Theoretically it would seem that, with just one teacher in charge of six or eight classes, individual pupils must suffer serious neglect. On the whole, however, it seems a wholesome neglect. Most teachers are too much given to teaching, and too little disposed to let children learn. In a one-teacher school, opportunities for learning are inevitable. As we noted above, much primary school learning is of such a nature that, if it is to be effective, children must work on individual assignments. In this matter of individualisation of instruction, the

average Australian one-teacher school is far ahead of the city school.

In learning which involves social skills and attitudes, our one-teacher schools are necessarily at some disadvantage, and it has therefore been contended in another pamphlet in this series that provision should be made for compulsory attendance at secondary school by all children from remote areas. Even here, however, the case of the small country school is by no means hopeless. In the learning of social skills and attitudes, variations of ability, and indeed of age, do not matter greatly. Though his group may be small, the country teacher is not altogether prevented from providing his pupils with those social and co-operative experiences which play so important a part in modern education. Indeed, to judge from recent reports of activity programmes adopted in the small schools of the Lismore district, it seems likely that, in this educational reform as in others, the country teacher will show the way to his confrère in the city.

Conclusion

We began this pamphlet with a quotation from an essay which will be written, we hope, ten years from now, by a first-year student of the Canberra College for Primary School Teachers. Perhaps we may fittingly conclude it with a further quotation from the same essay. Having outlined the defects in current primary education, our essayist will proceed to describe how they were removed. She will tell, no doubt, of the growing realization that democracy is a most difficult form of government, to

be worked only by an educated people, and of how we sent back to Canberra with a thumping majority the first Federal leader who had the brains to promise the necessary education. But read it in her words.

Smith's first step was to establish a real Federal Bureau of Education. Fully alive to its central importance, he himself took the education portfolio, and in his first year as Minister, Parliament voted £50,000,000 for education. Appreciating the dangers of a too-centralised control, Smith not only left the greater part of the administration in the hands of State authorities, but he also fostered and encouraged local interest and control in all the towns and settlements up and down the land. So education had its renaissance in Australia.

The task of reform proved to be simpler than one might have anticipated. Australian teachers knew pretty well what to do, and were only waiting for the opportunity. With the encouragement of the Federal Bureau, the opportunity was theirs, and educational growth was both instantaneous and dramatic. Its characteristic expression is the community centre, to be found wherever the population warrants it. The typical collection of buildings is itself "a thing of beauty." At each centre, there is a nursery school for the 2 to 6 year-olds, a primary school for the 6 to 12 year-olds, and a multi-lateral secondary school for the 12 to 16 year-olds. There is a theatre and a cinema, a library and an art gallery, a gymnasium, a swimming pool, and a cafeteria. All the buildings are generously equipped so as to make possible "the education of the whole man." They are surrounded by the ample recreation grounds which are doing so much to reduce physical illiteracy in Australia.

As a result of this educational renaissance, the Australian primary school is at last performing its real function. By

the use of improved methods of teaching, and through a proper regard for individual differences, intellectual growth is encouraged to a degree undreamed of ten years ago. In the encouragement of physical growth, and of emotional and social growth, the development has been even more dramatic. Given adequate playing space and the necessary equipment, teachers have revolutionised physical education. Through increased and more intelligent attention to the social studies, they are providing that education for social living on which democracy depends. It may, indeed, be claimed that the Australian system of primary education is as good as any in the world.

AUSTRALIAN COUNCIL FOR EDUCATIONAL
RESEARCH

“THE FUTURE OF EDUCATION” SERIES

The Australian Council for Educational Research is publishing, under the above general title, a series of pamphlets aiming to show the need for, and to provide a plan for the reconstruction of education in Australia.

Pamphlets already published are:

1. ‘Education for Democracy’ J. D. G. Medley
2. ‘A Plan for Australia’ A.C.E.R. Staff
3. ‘Education for Some . . .’ J. A. La Nauze
4. ‘The Primary School’
J. M. Braithwaite, C. R. McRae, R. G. Staines

The following are in course of preparation:

- ‘Twelve to Eighteen’ Professors Browne and McRae
(Education of the Adolescent)
- ‘Universities in Australia’ Professor Ashby
- ‘Adult Education’ C. Badger
- ‘The Pre-School Child’ Miss C. Heinig
- ‘Child Problems and Clinical Work’ Dr. I. Sebire
- ‘Education for Parenthood’ Miss Z. Benjamin
- ‘Vocational Guidance’ W. M. O’Neil
- ‘Individual Variations in School Pupils’ Dr. H. S. Wyndham
- ‘Physical Education’ B. F. G. Apps
- ‘School Buildings and Equipment’ A.C.E.R. Staff

It is proposed also to publish pamphlets on other subjects, including the School Leaving Age, Technical Education, and Libraries.