FACULTY OF EDUCATION OCCASIONAL PAPER No 1

THE LESS SUCCESSFUL SECONDARY SCHOOL CHILD

UNIVERSITY COLLEGE OF RHODESIA AND NYASALAND

UNIVERSITY COLLEGE OF RHODESIA AND NYASALAND

THE LESS SUCCESSFUL SECONDARY SCHOOL CHILD

THE PAPERS AND PROCEEDINGS OF A CONFERENCE HELD AT THE UNIVERSITY COLLEGE OF RHODESIA AND NYASALAND, SALISBURY, AUGUST 1962.

FACULTY OF EDUCATION : OCCASIONAL PAPER NO. 1.

CONTRIBUTORS

D. G. HAWKRIDGE Lecturer in Education, University College of Rhodesia and Nyasaland, formerly Head of the General Side, Churchill School, Salisbury.

H. H. HALL Educational Psychologist, Federal Ministry of Education, Salisbury Region.

JANET GALLOWAY Vocational Guidance Consultant.

NAN HAGGARD Lecturer in Visual Aids, University College of Rhodesia and Nyasaland.

M. MACINNES Controller of Employment Exchanges, Department of Labour, Southern Rhodesian Government.

JOYCE TOZER, J. M. BROWN, and J. F. GAYLARD Heads of High Schools in Salisbury.

CONTENTS

FOREWORD

No country has found an adequate solution to the enigmas exposed in the following pages. Nevertheless, the attempt to discover and widen the pool of ability will continue in many educational systems. Research into the psychology of success and failure in and out of school may yield helpful results. Changes of methods of teaching sometimes bring improved academic performance. Better educational and vocational guidance is expected to lower the number of social, emotional and occupational misfits. The Papers and Proceedings presented here are the core of a series of discussions on these topics between some 130 persons intimately connected with education, most of them practising teachers.

We are grateful to the University College of Rhodesia and Nyasaland for providing the facilities for the conference, and enabling the publication of this book, and to the persons from outside the College who kindly agreed to present Papers in their own areas of professional experience.

CHAPTER ONE

THE BACKGROUND AND CHARACTERISTICS OF LESS-SUCCESSFUL SCHOOL-CHILDREN, AND THE EMOTIONAL AND SOCIAL FACTORS INVOLVED.

This all-embracing title might well cause the cynics to declare that it sounds ideally suited to the purpose of somebody who is going to waffle along full of theory, and without the slightest idea of the blackboard jungle in which most of us have to make our living. May I immediately, therefore, put in a plea that we should be forthright, that we should stick to facts as they are. Some of the gentlemen making Trafalgar Square speeches these days might well suggest that we would be best advised to line up the whole group of less-successful against a stone wall and use a machine-gun on them to preserve the élite of today. However much one or two of us may secretly sympathise at times in the classroom with such ideas, we are restricted by realities, some of which in our own country are almost as harsh.

For this reason, I want to lay the foundation for our further discussions by attempting to describe — if one can ever describe adequately a human being — the typical less-successful secondary school-child. Of course, the task is made more difficult because there is no such creature. As with most human averages the deviations from the mean are far more important than the mean itself. You will, I am certain, call to mind all kinds of exceptions to the rule as I continue. Incidentally, my observations about Rhodesian children are based upon data collected over several years in systematic fashion, but only in a limited area.

First of all, it is necessary to identify fairly precisely the persons about whom we are talking. The term "less-successful secondary school-child" has been chosen for a particular reason which will be discussed later, but for the time being let us say that we are concerned with children who can benefit from a secondary type education. We need to make it quite clear where the boundaries lie; at this early stage it is as well to say that our concern does not extend to the Educationally Sub-normal Child. This does not mean that those teachers who look after Special Classes in the schools are not doing priceless work — in fact, we are certain that their experience will be of value to our discussions, — but for the moment we are going to assume that such pupils are cared for well at Glengarry and in these Special Classes. Their retardation is marked and has been noted; as the Ayerst Report (Ayerst 1926) says, the provision for the "sub-70's" (to use another term for them) is good — it is the "70-95's" about whom something needs to be done. So here is the first characteristic of the less-successful secondary school-child — he is *likely* to have a measured I.Q. of 70-95.

While we are talking about his measured intelligence it might be good for us to consider at the same time just what this means. Amongst the Source Materials you will discover extracts from Dr. C. M. Fleming's discussion (Fleming 1958) on intelligence, intelligence quotients and backwardness. In order that you may not be compelled to read it hurriedly now, I propose to summarise the thesis contained therein. For many, many years after intelligence tests were first developed, it was assumed by their inventors at times, and more often by their users, that the tests

measured innate ability. Therefore, it was said, it was perfectly feasible to compare attainment with intelligence and say "This child is doing badly compared with his innate ability — he must be persuaded (somehow) to do better. He is retarded." Or, "This child scored 10 points higher than 2B's average on I.Q. He must be good enough to go in 2A." No attempt is made to discover why he is performing at a different level, perhaps below 2B's average.

This notion that intelligence tests measure innate ability has died hard, in fact, it still appears in students' essays here in spite of our counter-propaganda. Professor Vernon (Vernon 1960) of London has indicated clearly for us the true position, namely, that innate intelligence cannot be measured by any existing tests, which are all liable to be influenced by the previous environment of the individual.

Another notion which has died hard, is that intelligence remains constant. Since we have no measure of innate intelligence itself, we cannot say whether that does remain constant or not. Certainly we can say now, after the long-term studies of thousands of children at Harvard and California (Dearborn et al,. 1941, Jones 1943, Bayley & Espenschade 1944, Macfarlane et al., 1954, and a useful summary in Eysenck 1953), that intelligence quotients, that is, the measures we make of intelligence, are very far from being constant, and that we must, absolutely must, take into account environmental considerations. The long-term studies have shown us too that prognosis of development is extremely risky at any point, which leads us to question seriously some current theories of streaming, guidance, or "irretrievable backwardness of the dull child, and the reprehensible retardation of those pupils who may do better in a test of general ability than in one of scholastc attainment", to quote Fleming (Fleming 1958). Final support for the contention held by many, including myself, that the pool of talent can be widened, comes from Vernon, who says this in his report on Selection for Secondary Education in Jamaica (Vernon 1961):

> "The variations in academic success of different schools are remarkable, and these appear to depend mainly on the traditions and morals of the particular school, the quality of its staff, and the amount of encouragement and support from the homes.
> "True some schools draw on pupils of better intelligence and previous attainments than others (the famous Manchester Grammar School, for example, is far more selective than state grammar schools). But, as shown in *Secondary School Selection* (Vernon 1959), there is often *no* correlation between selectivity and G.C.E. successes."

This lengthy digression suggests to us that the label "70-95's" should be regarded by us as a present description, not a life sentence to failure. We can now hope legally, as it were, that the less-successful secondary school-child will become more successful in certain circumstances. It is part of the purpose of these papers to seek out what these "certain circumstances" may be, and whether it is feasible or not to introduce them to our schools. In the same breath we must discard the use of various types of attainment tests to forecast at long range lack of success for these pupils; instead we should regard the tests more as diagnostic measures, by which we are enabled to render more useful assistance and bring our charges to a more successful end.

The aspect of the situation thus far examined has been the less-successful pupil himself. The second important aspect for us to consider is the home, or socio-economic background. In much of the literature written overseas concerning secondary modern schools, the backward child, and so on, much stress is laid upon the poor environmental conditions in which so many of the less-successful children have been brought up. The black back streets of Birmingham seem no place for the growth of culture. "If only these boys and girls could breathe the clean, fresh air of the countryside they would gain a new vision of life as it can be", write some old folk to newspapers like the 'Times.' Here in Rhodesia conditions are somewhat different; certainly the climate is far pleasanter, although the high proportion of General Side children affected by bilharzia may be counted against the country. At any rate, because the children we are concerned with belong, at present, broadly speaking, to a race oligarchy, differences of socio-economic background are minimised. Although I know of no figures to quote for England, a simple survey (Hawkridge 1960) here revealed that 40 per cent of General Side children lived in better residential areas; such social mobility is unlikely in England. Here, there have been many opportunities in the past decade for relatively unskilled men to make money and take their place in most respects alongside the professional and semi-professional people. Social values have been disrupted, particularly in the boom period 1954 - 1958, by the temporary presence of large earnings in the hands of people accustomed to lower levels of living, people who in a sense are "detribalized" as much as the urban African. This has not meant, unfortunately, a widespread increase in cultural standards in all directions, but it has meant that on the whole less-successful children here are better clothed and housed than their English counterparts and enjoy a healthier way of life.

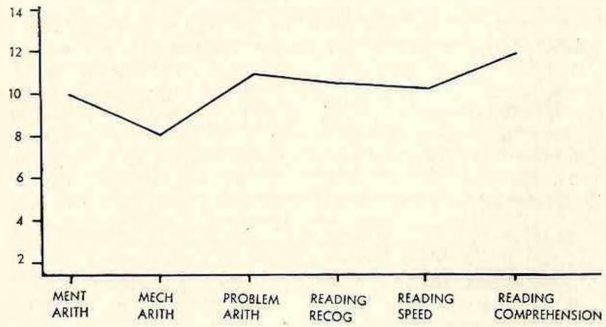
Further, any study of the statistics of our schools indicates that a large proportion of the European community in Rhodesia is relatively recently arrived in the country. Immigration policies since 1953 have dictated to some extent the occupations Europeans have entered. This too has contributed to a narrowing of the spectrum of backgrounds we can expect to find in any one class or school. Sons of dustbinmen just do not exist in our schools at this moment, for example, nor sons of some categories of industrial operatives. To suggest that this is a permanent state of affairs would be dangerous, but it is the reality at this moment.

You may think that I am trying to make it sound as if we have many advantages here, and should be doing far better than we are. To keep the balance in our thinking, allow me to outline some of the disadvantages which we undoubtedly share with England and such places with respect to this group. For instance, as in England, a larger percentage of such children have both parents working, have marital discord in the home, are looked after by only one parent, and so on, than those in more academic streams. It is likely, but impossible to verify at this point, that social pressures within the non-African community here make it more urgent for both parents to work than in England, and make it more likely for marital discord to occur. Whether this is so or not, the facts remain to face us, that we undoubtedly have these problems and ones like them to deal with in the backgrounds of General Side pupils.

Another fact not generally recognised is that about a third of our children have had their lives, if not their schooling, broken by a major move from one country to another. This proportion is more or less constant in both academic and general secondary streams at present, but we might argue that the less-successful pupils may also have been less-successful in adjusting to this great change. Notable amongst children who are failing to adjust readily are those for whom the move has resulted in foreign language difficulties.

For us to understand the less-successful secondary school-child it is essential for us to examine his primary school career, since of course it is there that we are likely to find the root-causes of many of his difficulties scholastically speaking.

Firstly, it is probably true to say that the majority of pupils who are less successful in the secondary school have been less-successful to a greater or lesser degree in the primary school. Chapter Four will deal with some of the remedies for such lack of success, but for the moment it seems important to note the pattern of these failures, and their specific and general effects. In attempting to outline these matters for you, I am indebted to a paper by Dr. C. A. Rogers presented to the English Association here in 1958 (Rogers 1958). He suggests that we may draw a graph something like this, for many children.



If we were to add other subjects from the curriculum to the right-hand side of the graph, it is likely that the line would continue to rise or fall in irregular fashion, but what we are forced to note is that too frequently with General Side pupils the line dips strongly on number, or language, or both. High school teachers like to blame the primary

school teachers for this:

"All these play-ways don't give the children any *sound* grounding in the 3 R's. Look at the dreadful work they give us when they are supposed to be *literate*!"

If only the matter were so simple that we could lay the blame in such a way . . . In fact it is true that there may be many cases of children who in ordinary classrooms have found the going too heavy, and probably no good primary teacher would ever admit that she is satisfied with the situation as it exists, but beyond this there is a real need to examine closely those causes of failure in the primary school which cannot be attributed directly to the teachers' negligence or lack of professional experience. There are many factors which have contributed to failure which lie outside the classroom. For example, we may cite the case of the child with a far more successful brother or sister against whom he is often compared, or the child who suffers from the dominance of a parent who did not succeed at school himself, but expects his child to make up for this. We may quote the child who has felt rejected and emotionally disturbed through the arrival of another child in the family, or who has grown to feel inadequate through long periods of absence from school through illness, with their intervening periods of feeling hopeless about ever catching up with the others. One or more such factors, possibly but not necessarily combined with poor teaching, may result in specific backwardness, which is restricted to one or two areas, such as reading or problem arithmetic, or, worse, general backwardness which involves most of the school subjects — the child appears 'to lose interest in school'. All pupils whose backwardness is attributed to environmental conditions, such as those mentioned above, can be said to be experientially backward, as Miriam Highfield (Highfield 1949) has termed it. There are, besides, those who are innately backward, for whom the prospect is less bright than for the experientially backward. Our difficulty, and at the same time our hope, is that it is virtually impossible to be certain which pupils fall into which category! This we have already discussed.

We are brought back forcibly to the fact that there *is* backwardness in the primary schools. By the time the pupil reaches the secondary school this backwardness has grown out of all proportion. A constant sense of failure in the primary school, when others round about are succeeding, as most children do, with the carefully graded work, may lead a child from one year's retardation at seven to three or four years' retardation at fourteen. In one survey quoted by Schonell (Schonell 1942), for example, a non-selective secondary school (one like ours) found that 8 per cent of its entrants at 11 had reading ages of less than 7½ years. Rogers in his address suggested that much can be done for those persons who "clutter the post-primary ladder" and we hope that Chapter Four will give some sure ideas of what can be done in both primary and secondary schools.

We now come to examine the position of the less-successful child in our secondary schools. By definition, it is an inferior position in academic terms, which brings its own problems as we shall see. To be purely descriptive, however, we must say that this child occupies the classes usually found in the General Sides of High Schools, although we must admit that these General Sides vary tremendously in concept and size and usefulness from school to school. In England, this child would undoubtedly be in a Secondary Modern School, but in mentioning that I beseech you not to

transfer *en masse* to this country all the ideas connected with Secondary Modern Schools!

Again, to be purely descriptive, we may say that our less-successful pupil has access to the College of Preceptors' Certificate examination at present, but not to the Cambridge School Certificate, or G.C.E. 'O-level'. If he fails C.O.P., then a Headmaster's Certificate of Completion or, on the Copperbelt, a Regional Certificate, is all that remains for him as an incentive in the academic field. In terms of figures, those less-successful in the sense defined earlier will occupy about 45 per cent of the desks in an average school — the difficulty being once again that no school appears to be truly average! For instance, a school drawing upon a predominantly well-to-do zone will generally tend to have fewer General Side pupils than one situated in the middle of an artisan district.

Lastly, we must consider the types of failure which are readily apparent among the pupils in the General Sides of High Schools. We have already discussed some of the possible grass-root causes of failure, but what kind of lack of success is it that troubles us at the secondary level?

I am certain that to most of you there immediately come to mind two essential points at which our General Side pupils are failing: language and number.

In language, we see a situation about which all persons who come in contact with General Side pupils have a complaint.

"He can't even spell properly", says an irate parent. "It wasn't like that when I was at school."

"What's the use of secretaries who don't know how to write an ordinary business letter?" grumble the business-men.

"It's no good setting him any kind of test that needs continuous expression in English!" complains a geography master marking examination papers.

"You've got to *re-write* her essays for her", sighs an English teacher. "And as for asking her to read aloud . . . "

Now undoubtedly there are a number of causes we can blame for this; in fact, they fall into two categories, firstly those we can blissfully blame and expect somebody else to do something about, and secondly those we are more cautious to blame since it means then that we shall have to take action. In the first category we can place causes such as television, lack of good books in the home, parents who never encourage their children to read, junior school teachers who know little about modern techniques of teaching reading and writing, comics, twentieth century American slang, and so on. Naturally, in indirect ways we try to influence the thought of our society on these matters, but broadly speaking they are outside our

control, although not so far outside that we can avoid thinking about them altogether. In the second category come our own failings as teachers, and as teachers of language in particular. Here we may protest, many of us, saying that we were not trained as teachers of language and are not paid to correct the language, written or spoken, of our pupils to whom we are attempting to teach History, Science, Woodwork, Mathematics, or whatever it may be. This is a point of view which I personally would have had no difficulty in sharing some six years ago when I was just beginning to work in the General Side. There are immense problems involved in teaching one's own subject, let alone trying to teach English language too — this is how the argument runs. There is, however, a counter-argument which has been strongly supported by experiments on a large scale in some English schools (Rowe 1959). This counter-argument begins like this: if every teacher in General Side classes indeed becomes first and foremost a teacher of English, he will in fact make easier his task as a teacher of some other subject or subjects. English is so basic to all proper learning in our schools that it *must* have priority. It is this counter-argument which I would now support. For those of you who fear that this will involve you in endless correction of minor errors, may I utter a word of comfort. To become a teacher of English language first and foremost does *not* necessarily involve that, but it may mean a revision of systems of teaching. This we shall discuss in full in Chapter Three, but for the time being, could we suggest that a living use of English could be fostered quite simply in many lessons by doing away with the system of dictating notes, by introducing more suitable textbooks which could be *used* by the pupils, by setting more exercise which demand practice of English by the child in order to get the right answer, and so on? Through such measures, every one of us can become a teacher of English. Literacy must be our first aim for General pupils. Then all else may be added unto it.

What about the second point of blockage, number? I cannot profess to have any specific suggestions to make on this topic, although I fully expect that Mr. Hall will be able to help us in Chapter Four. There are of course, a number of general principles, to be discussed during the next two chapters particularly, from which we may be able to gain vital insight into the problems of pupils who fail in number. It is from these next two chapters that I earnestly hope much of the discussion of possible reforms will flow.

D. G. Hawkridge

CHAPTER TWO

THE PSYCHOLOGY OF GENERAL SIDE CLASSROOMS

In Chapter One I attempted to outline to you some of the background necessary to a proper understanding of less-successful secondary school-children, but during that discussion I avoided as far as possible mention of the psychological atmosphere in the classroom, which to my mind constitutes one of the most important facets of the whole problem. In this chapter, "The psychology of General Side classrooms", I wish to point out the causes of the situation as it appears to me at present, to describe it, and to begin to suggest feasible ways of ameliorating it. If on the one hand you feel I am guilty at any point of twisting the facts of the situation to suit my arguments, you will have a good opportunity to put other points of view in the General Discussion. I shall not, on the other hand, apologise for stating the case strongly, since in my own experience the descriptions I wish to give you now are accurate.

First, let us consider for a moment the words "psychology of General Side classrooms." Apart from the fact that to many teachers "psychology" is an enigmatic word, what can we expect to discuss under such a heading? Surely it is for us to consider, basically, the thought-patterns and motives which surround and are present in these classrooms, or, if you like, the components of their climate. We are able to discuss this climate, not in terms of rainfall or temperature, but in terms of the individual teacher, the class as a group, the school at large, and society itself, to mention a few.

The individual teacher, to take this factor first, includes us, if we teach or are likely to teach any General Side class. If we begin to examine our own attitudes (which study is necessary, since attitude builds psychological climate) we discover that we are, by and large, the successful products of a system. The result of this success is that we carry with us a strong conservatism, being, as a group, one of the most conservative in the world, particularly with reference to this educational system in which we now have a vested interest in one way or another. We sub-consciously expect success from those we teach, and are frustrated as teachers when success eludes us. Some of these feelings within us are laudable and necessary if the machine of education is to remain in motion, and we shall mention them again later, but this strong expectation of success and its accompanying frustration, in General Side classrooms at any rate, may hinder our efficacy as teachers. If it is our own standards of attainment which we use as base-line, then we are likely to find nothing but misery in teaching General Side pupils. Haven't you heard this kind of staffroom conversation?

> "Well, they've *all* failed this time. At least in the last test one or two passed!" says the teacher glumly and despairingly. "Don't worry," says another, "they never have *all* passed an exam. 3F is a dreadful class."

While this matter is before us, may I suggest that certain practices in our schools at times of examination be modified. I refer, firstly to the practice which exists to my certain knowledge in a number of High Schools,

of attempting to maintain at all costs the same level of progress through the syllabus in all streams throughout the first year, Form One. The basis for this practice is said to be a dictum from the Ministry itself, although a written copy of this dictum has never come before me. I scarcely need outline to you as experienced teachers the difficulties arising from this: the best streams tend to be held back to the level of the mediocre, whilst the weaker streams struggle hopelessly with a mass of material far too detailed and difficult. The results of the mid-year and end-of-year examinations show the best classes getting ridiculously high marks (if they are marked on the same scheme), indicating how little they have been extended, while the weak streams get marks which indicate near or complete failure. Educationists rightly complain that the talent of the highly-gifted pupil is being wasted in our schools. Equally so, the psychological environment created by vast and often utter lack of success amongst poorly-endowed children in Form One is something we should deplore. Of course it is perfectly true that a certain amount of selection has to be undertaken during the first year in High School, but most schools have completed a good deal of this by the half-year, and could immediately thereafter adjust courses to suit pupil's needs. Instead, it is possible to see schools persisting in the sorting-out process right into the second year, and in fact using the promotion/demotion-in-streams system as a means not only of selection but also of reward and punishment. Does this movement between classes really help towards the achievement of homogeneity, which is sometimes given as the reason for streaming? Will it make very much difference to the individual teacher's task if the bottom three from 3E go down and the top three from 3F up? It is far more likely that such movements cause upheavals in the children's social life which contain more possibilities for evil than for good. Is this game of musical chairs necessary or wise? Could we not agree that there are a few children for whom such moves are educationally the best thing, but that for the vast majority, a stable environment is far more important?

Secondly, I must refer to the process, which again I have observed in schools, by which a General Side mark schedule comes to contain a majority of failing marks. Class averages of 25 per cent are not uncommon. Between ourselves, we should admit that such marks indicate perhaps not only the weakness of pupils, but also that we have not examined closely enough nor fully understood our role as teachers of less-successful children. I might quote here the massive evidence which exists to show that, particularly for the group about whom we are talking, praise is always liable to secure better results than reproof, and success better than failures (Book & Norvell 1922, Hurlock 1925, Sears 1940, Steisel & Cohen 1951). Why then do we continue to put down lists of failures? Is it because we are unable to explain well enough? Just possibly. Is it because the test is too difficult? Almost certainly. A test which most of the candidates are going to fail is no test at all. What good reason can we suggest then for setting such difficult tests? *Sometimes* it may be that we want to "weed out" candidates for an examination, and many streams may then be asked to write the same "mock" test papers, but beyond the first year in most schools the General Side streams write their own examination papers. We are not trying to compare the marks of 3B with 3F, so why mark to the 3B standard? I am fully aware that this may be a controversial suggestion, but it is one I think we should not be afraid to discuss. Before somebody else does so, I am going to state in a sentence the other side of the question: results from classes do tend to be highly correlated

with what the teacher expects from them. If we expect a high standard, we may get it, it has been said. It may be possible for us to reconcile in discussion the two sides of this apparent paradox.

If now we continue to examine our own attitudes, we may see difficulties in other respects too. Many teachers are able to teach their subjects admirably in academic forms, which find enough in the subject-matter itself to interest them, but in General Side classes difficulties appear, even disciplinary ones. A headmaster once said to me: "In an academic class it's 90 per cent teaching and 10 per cent discipline; in a General class it's 10 per cent teaching and 90 per cent discipline!" Perhaps you agree. Birchmore reports that in a London school where he worked "teachers prefer teaching those who appear to be more able. Teachers' ratings of pupils in less-able classes were lower than those in better classes." He goes on to suggest that if it were possible "it would be interesting to study the effects of different types of discipline upon pupil-teacher relationships. It is worthy," he declares, "of a complete study on its own at secondary school level." (Birchmore 1951). It is probably true that very skilled teachers do manage equally well in both spheres, but it seems to be the average teachers (and after all, most of us are agerave teachers) who find General Side work so difficult and distasteful. I think we can all agree that "3F is a dreadful class" echoes but mildly the opinions of many in our staffrooms, although I hope this may be a case of preaching to the converted.

To summarize thus far, we may say that the first component of General Side classroom climate is probably poor teacher-to-class attitudes. Lest you should think that I am being too hard on the teacher alone, let me hasten on to mention the other components.

If there are poor teacher-to-class attitudes, it is equally true to say that there are poor class-to-teacher attitudes. Very often it is hard to know which came first, like the proverbial chicken or the egg. Certainly we can all remember instances when a class has gained the upper hand on a teacher, and decided to make his life a misery, but as any teacher will admit, teaching is a two-way process, and discipline too. It is likely that any teacher finding himself in such a position has contributed considerably to his own downfall. Poor attitudes stem from all kinds and actions on the part of both teacher and taught; from a study of the research literature, it is possible to list some of the sources of such trouble (Haggerty 1925, Hurlock & McDonald 1934, MacClenathon 1934, Jersild & Holmes 1940, Tiedeman 1942, Symonds 1946, Leeds & Cook 1947, Henning 1949, Stouffer & Owens 1955).

> *Teachers* are accused of being harsh disciplinarians, not human, autocratic, domineering, sarcastic, threatening, unable to provide for individual differences, partial, fussy, bossy and apathetic. This is what children say.
>
> *Children,* say the teachers, are guilty of annoying, disorderly, irresponsible, aggressive, untruthful, dishonest, idle behaviour, of being seekers of attention, lacking in courtesy and respect for authority, cloakroom lobbyists, disinterested cheaters in school work, careless, tardy, sly, day-dreamers.

It is worth pointing out that it matters little whether these accusations are justified or not; from the studies it is apparent that they exist. My own researches indicate that the General Sides of our own schools are far from being free from similar attitudes. This may lead us to propound a theory of discipline, although in doing so we must be wary of the pitfalls of terminology and connotation.

To help us, may we quote now the evidence of three researchers:

(a) Wickham, in his famous study of children's behaviour and teachers' attitudes, stated that:
"The characteristics of ideal behaviour, as defined by teachers, tend in the direction of complete submission, order, routine, the abstinence from any aggressive social tendencies that run counter to the teacher's standard of classroom order."

From his extensive experiments he further concluded that teachers' reactions in the classroom to aggressive behaviour were too often personal and emotional, indeed, that teachers met aggression with aggression and forgot their role as mature adults (Wickham 1932).

(b) Leeds and Cook framed a memorable statement on the same matters:

"The importance and significance of teacher-pupil interaction to the total development of the pupil would seem almost axiomatic. The potency of the affective over the cognitive nature, the importance of motivation in learning, the influence of the social-emotional 'climate' on group and individual behaviour, the established principles of mental health, and the ever-recurring problems of discipline in the school situation all point toward the significance in the educational process of the personal interaction between teacher and pupil . . . in too many classrooms today an undesirable teacher-pupil relationship lies at the basis of ineffective learning, a dying intellectual curiosity, a child's distaste for school, unhealthy emotional experiences and baffling discipline problems." (Leeds & Cook 1947).

(c) Brown has written that "the successful management of aggression has now become one of the most topical and urgent subjects in human society." (In Jackson 1954).

These statements were written with the school or society as a whole in mind; how much more so are they true of General Side classrooms? From them we may propose the following:

(1) That it is essential for us to examine closely the teacher-pupil relationship in General Side classrooms, since this may contain at least part of the solution to our problems.

(2) That it is likely that we shall discover a strong measure of aggressive, dominative behaviour in these classrooms, from both pupils and teachers.

Is it not true that insecurity is the major evil of our age? That insecurity brings fear, fear of other individuals and groups? Fear promotes aggression; aggressive behaviour kills freedom of expression, and lack of freedom again breeds insecurity. So the whole cycle recommences. For the adolescent we shall add that of course too much freedom brings insecurity too, but more about that in a moment. It is surely true that our present system lends itself to dominative behaviour on the part of the teacher. If we picture the classroom, what do we see but the teacher standing at the front, trying to instruct the class, forced by adolescents into a dominative position from which it is essential that he maintain firm control and from which there seems no retreat. Silence, submission, and conformity appear to be what he requires in many instances for his teaching. Of course, children frequently react against this imposition of authority, with unpleasant consequences. Is it not true to say then that if it is possible to secure for the teacher a learning situation in which he is not required to exert this influence from the front of the class, we may indeed be drawing closer to a solution of other problems within General Side classrooms? In other words, can we in some way alter radically the psychological climate by changing the teacher-pupil relationship? This we shall discuss further in Chapter Three.

Finally, I want to examine for a few moments with you the component of classroom climate which we might generally term society. In what ways does the wider community contribute to classroom climate? Already we have considered to some extent how the misplaced enthusiasm of some parents, the emotional disturbances which occur in many homes, and other such factors may add to the sense of failure of individual children within the classroom.

"You'd b . . . well better get your Cambridge!"

"Why are you so blinking lazy? You waste *hours* every day dreaming about stupid people like Cliff Richard."

"Look at all we've done for you; can't you just do a little for a change?"

"Go and change into something respectable. Jeans — what next?"

"Perhaps a taste of the belt will stop your nonsense!"

These are the speeches of parents who are part of the problem themselves, who desperately need to be educated to the true emotional needs of adolescents. Let me insert here that I have no sympathy, on the other hand, with the parent who abdicates his authority, any more than I have for the teacher who does the same.

"The child is right."

"Give him what he wants, m'dear."

"Encourage him in everything, darling . . . "

This sort of talk takes us nowhere but to delinquency, and parents or teachers who take that point of view are no better than Mr. Squeers (who undoubtedly would have opposed them).

Still, we have to take into account the parent who expects too much, who insists on his child writing examinations for which in our opinion the child may not be fitted. In a way, this kind of social pressure may be considered to have a tonic effect on our own system which has been lacking in the early years of the English Secondary modern school. It is perfectly true that our percentage of pupils gaining examination passes compares favourably with English results. The College of Preceptors' examination, for instance, intended by the examiners for the second quartile and a few from the third quartile, is being written with moderate success here by pupils from the third and fourth quartiles. At the same time, we must hold in check the pressure (which is bound to increase in the face of inter-racial competition) to make all pupils sit examinations, and therefore we must hold in check too the pressure to gear our whole General Side system to these examinations. This pressure would undoubtedly result in a worsening of classroom climate.

In summary then we may say that a point for our urgent consideration is the aspect of classroom climate to do with teacher-pupil relationships, which, we must admit, are not always all that they could be. I propose in Chapter Three to suggest practical measures to alleviate the situation, which to me appears to be serious.

D. G. Hawkridge

CHAPTER THREE

METHODS OF TEACHING

We have now discussed fairly fully the general background to the problems we face in educating less-successful secondary school pupils, and also, in the last chapter, we explored the psychological environment in which this education must be carried out. One of the consequences of our exploration, if I may say so, is that we are able to perceive the teacher in an unfortunate situation, in which learning is seriously hampered by the measure of controlling action expected and necessary from the teacher. I suggested that it might be possible in this chapter to put forward feasible, practical proposals for removing the teacher from this dominative role and restoring him to that of instructor as opposed to that of sergeant-major. For the material I am going to discuss now, I am deeply indebted to the works of a number of educators, some famous, some little-known, but particularly to that of A. W. Rowe, in whose school in England I had the privilege of conducting research in 1960-61.

I want to propose first that the focal-point of this plan to change classroom climate is a greater use of individualized methods of instruction in General Sides of High Schools. This does not mean that more traditional methods are to be abandoned, but it does imply a shift of emphasis.

Most teachers become proficient in a short time in the art of conducting what we would call an "ordinary" lesson, which probably contains, on average the following elements:

(a) an amount of oral exposition by the teacher which varies with subject and with teacher, and may or may not be supported by blackboard work, other visual aids, demonstrations, and so on.

(b) an amount of exercise work by the pupils, oral or written.

(c) an amount of recording, in the form of note-taking or note-making, again by the pupils.

Since all of you are fully acquainted with such methods, I am going to pass them over with no further comment.

What may, however, be new to you, or else forgotten in the dim distance of training college or university days, are the details of the various systems of individualized instruction which have been developed in the past forty years to meet some of the educational objections to the process of mass or universal or simultaneous education, as it has been variously termed — to meet objections to the process of educating all the people in one classroom in the same manner at the same time. There have been a number of attempts to secure these aims, particularly with less-successful and E.S.N. children. (Inskeep 1926, MacMunn 1926, Descoeudres 1828, Ingram 1935, Duncan 1943, Jones 1948, Hildreth 1950, McLean 1952). There is no time now to describe all of them, therefore I wish to outline for you the two famous systems, the Dalton and the Winnetka Technique, and to acquaint you with an English one which we shall entitle Rowe's Job-

card System. Before I begin to describe these, allow me once more to state clearly the reason why I consider them to be important to our thinking. Each of these systems, whatever drawbacks we may discover in it, enables the teacher to leave the front of the classroom and work beside the individual pupil, thereby transforming the teacher-pupil relationship, and bringing to an end many of the disciplinary difficulties we have noted earlier.

The Winnetka Technique

Beginning in 1919, the schools of Winnetka, an outlier of Chicago, were used for experiments in individualized learning. Carleton Washburne was the chief organizer, and his team stated its aims thus (Washburne, Vogel and Gary, 1926):

(a) The syllabus to be followed must be clearly restated in terms of units of achievement. That is, the syllabus must be carefully broken down into its component parts.

(b) Diagnostic tests must be developed to measure pupil's achievement in each unit or part and to make correction possible.

(c) Self-instructive, self-corrective practice materials must be prepared to enable pupils to reach the stage when they are ready for the tests.

(d) There must be promotions within *subjects* on the basis of accomplishment.

(e) Time must be set aside for group and creative activities.

Through these objectives, Washburne and his associates hoped to be able to teach facts and skills on an individual basis and to develop individuals' creativeness and social-mindedness.

By 1932 Washburne was able to report many results (Washburne 1932):

(1) Schools could use half the school day for mastery of factual information and skills. This was enough.

(2) Schools could use the other half for creative and socializing activities.

(3) Piece-work was proved better than time-work.

(4) Less teaching and more learning resulted in the development of more initiative and self-dependence in the pupils.

(5) More clearly-defined curricula and syllabuses, and better-planned procedures resulted.

(6) Teachers gave more brain work, less 'tongue' work.

(7) Diagnostic, self-instructive, and self-corrective materials were essential. This meant new textbooks all round.

(8) Mastery of drill subjects and basic skills was better than average.

(9) The necessity for pupils to "repeat" a year was completely eliminated by his "subject promotion".

(10) Retardation markedly decreased, especially specified retardation.

(11) Winnetka-trained pupils could at least hold their own when transferred to traditional schools.

The Winnetka Technique has been criticised (Frankson 1950) because although it permits children to proceed at their own pace within subjects, the range of "core" subjects is wide, including arithmetic, language reading, spelling, general science, and social studies at the primary level, thereby imposing what is to some an undesirable uniformity. Failure in any unit of any subject is not permitted, which makes it difficult to see how lack of interest due to repetition can be avoided, particularly with General Side pupils. The Technique has also been criticized because it involves the re-writing of text-books (not in itself a bad thing), the construction of tests and the preparation of wide ranges of practice materials, as well as the maintenance of elaborate record systems. All this must involve a considerable capital outlay, although Washburne quotes figures which tend to prove that in the long run his Technique is no more expensive than traditional systems (Washburne 1932).

To sum up, we may envisage the child working through successive tasks in say, arithmetic, which teach him the process he has to learn, and which he is able to correct for himself. This prepares him for a diagnostic test, which shows him how much he does know, and where he needs to learn more. Further practice materials enable him to strengthen his weak points ready for another test. This is for half the day. The teacher in this time goes round helping individual pupils, marking their diagnostic tests, and keeping the records up to date. In the other half of the day, art drama, games, and so on give the pupil chances to be creative and to become a "well-adjusted human being".

The Dalton Plan differs from the Winnetka Technique at a number of points, and was, as you will recall, originally used in the schools of Dalton, Illinois, under the guidance of Helen Parkhurst, who produced a report on it in 1922 (Parkhurst 1922). The major features of the Dalton Plan have been amended from time to time as it has gained wider currency, but like the Winnetka Technique they included, firstly, a reorganization of the school-day and time which, according to observers, assisted greatly in enlisting the full co-operation of the children (Dewey 1924). Other important features were a wide choice of subjects for the pupil, subject-laboratories, monthly assignments to be completed in whichever periods the pupils thought fit, elaborate progress indicators for individuals and the whole class. We are told that:

"The relationship of teacher and pupil is transformed . . . a natural contact is established. A respect without fear, a willingness to do hard work . . . have been observed in the schools where the plan has been tried. (Dewey 1924).

The Plan itself certainly trains pupils to handle tasks, to manage their own time, to plan work, and ensures individual development. On the other hand, it has been criticized as being unsuited to much of the curriculum, and on the grounds that pupils and subjects tend to become

isolated in a very bookish type of education. Pupils are asked at times to assume too much responsibility — the ability to organize and conclude, as demanded by many of the tasks (which are set in general terms), is not always present. Further, there may be gaps to be filled by class instruction (Frankson 1950).

Again, let us summarize by picturing what the pupil will do in the Dalton School. On arrival at school in the morning he is free to decide which subject he will work on first. He goes to the subject-laboratory and finds there the teacher, who is ready to help him if necessary. Generally speaking though, his work-sheet will contain sets of questions for which references are supplied so that he can work on his own, reading up or experimenting, then writing his answers. The teacher will only request from him all the assignment at the end of the month, but he can finish it all this week if he wants to. If he gets tired of Geography, he can go off to do some Maths in the Maths-laboratory. Probably his worst subjects will get left to last! (See also Coy 1950).

To my mind the Dalton Plan contains a number of disadvantages for the less-successful child, which Rowe's Job-card System overcomes to some degree, the chief drawback being lack of structure and routine which General Side children need as a stable foundation for their work, and another being that all pupils have to follow the same route through the assignments.

Rowe's Job-Card System has the great advantage over the other two schemes of having evolved in an English secondary modern school (Rowe 1959) amongst less-successful secondary school-children, and was designed to meet their needs, which are in many ways similar to those in our schools. He does not claim that the clever pupil needs the aid of this system. I should mention now that it was not originally intended to prepare pupils for examinations, but I understand that Rowe is experimenting in this direction too now, in line with the recent trend to re-introduce some kind of examination into the English secondary modern structure. Central to his system is the job-card, which we shall discuss in a moment, but first we must see the broad underlying principles, which are these:

(1) *What the child wants to do is what he will do best.*
He caters for this by arranging an intricate system of subject-choices, plus a core which all pupils take. He takes considerable care to ensure that pupils are studying what they want to. Naturally the die is cast to some extent in the first year or so, but even thereafter changes are not uncommon. Further, within each subject there is a choice of work, as we shall see.

(2) *Pupils may work at their own pace.*
Through the job-card system, pupils are free to progress at their own pace. One might think that many would take advantage of this liberty and do very little work at all. This is not so in fact.

(3) *Literacy is vital.*
By working with books which they *want* to read the children become fluent in language and expression, both written and spoken. Every teacher acts as a teacher of English.

(4) *Every child is his own measuring-rod.*
By this concept there are no lists of marks, no competitions, no conventional reports in his school. To the outside observer this presents a difficulty: there must be some absolute standard to which teachers consciously or sub-consciously refer, and since the teachers have such a standard, the pupils must develop one too.

(5) *Good relationships between teacher and pupil are essential.*
The class continues to form an administrative unit, but Rowe claims that as a teaching unit it is inadmissible for most of the week. This System and its adjuncts break up the class in many ways, as we shall now see, which he claims create good relationships between teacher and pupils.

It remains for us to examine the System in action. First, allow me to show you what a job-card may look like.

JOB-CARD 91 GEOGRAPHY

Australia Cattle

Booklet: A Look at Australia.

1. Look at the picture of a cattle-station on p. 42. What does it tell you about the relief, climate and vegetation in this region where cattle are reared? Write down your answers.

2. Make a simple graph from the figures in Table 10, p. 67, then read p. 68 to find out why the graph dipped in certain years. Write down the reasons you discover.

You will see that it is tied to a school-subject, and to a fairly specific section within that subject.

You will see too that it refers to a booklet, which the pupil needs in order to answer the questions.

The questions themselves require the pupil to read (to discover what they ask), to observe, to read again (in booklet, in order to discover the answers) and to write down in lucid fashion the results of his investigations.

It is hard to say if this is a typical job-card, because in Rowe's school a wide variety is used. Some are typed sheets, others duplicated sheets, others carry their own source material. Some direct pupils to books, some to models, some to experiments, some to samples, some to tools. All of them set pupils tasks.

Now let me try to explain how the job-cards are used. Bearing in mind the five principles we have already discussed, you will be able to see how they are followed:

(1) The child chooses his own subjects to a large degree. Further, within each subject he is able to choose his tasks. A large number of job-cards offer alternative routes to the same objective, say, the History of the Tudors. Because the pupil selects his own tasks (within a certain broad structure), he is

well-motivated to complete them. Within a single classroom there may be twenty to thirty or more different tasks being executed at the same time, of course. Each pupil works at his own interest to a marked extent.

(2) No time limit is set at Rowe's school for completion of certain job-cards. Pupils thus work at their own pace. Because there is freedom of choice, pupils like and are interested in their work, with the result that they tend to work harder and faster than similar pupils working under traditional conditions.

(3) No child is able to find out all the answers to the questions set without undertaking a considerable amount of reading, reading in topics he himself has chosen. By constant manipulation of the written word he is unconsciously teaching himself the use of language and expression. If he *wants* to put down what he has discovered, he will do all he can to put it down in a way which other people understand, to prove to himself he has found the right answer.

(4) The questions on the job-cards can always be answered. At no point will the pupil meet a completely blank spot where he just cannot work out the next section. The careful gradation of questions, and the fact that they are always set in relation to some specific piece of information which is readily available to him somewhere, make this possible. The sense in which the child is still his own measuring-rod is that all his work can vary in standard of presentation: the correct answer can be wrongly expressed, the sketch-map untidily drawn, and so on. It is in these aspects that he is "on his honour" in a sense to produce his best. Naturally, the teacher is very much concerned to see that reasonable standards are maintained throughout the class. This is true under any system.

(5) Through the Job-card System, individual attention for the pupil from the teacher becomes the common practice instead of the rare occurrence. No longer does the teacher command from his desk, a position which forced him to control the class as a group and to encounter the total emotions of that group. The class no longer exists except in the physical sense of being together in the same room. Each pupil feels that his sphere of working and learning is of immediate importance to the teacher, favourable self-pictures are quickly built up and do not suffer through the frequent use of disciplinary controls as in an ordinary General Side classroom. Thus the teacher is released from his sergeant-major post and becomes the helper, guide and adviser of individual pupils as they work through what they themselves have chosen to do. The classroom climate is indeed radically changed, as I suggested it might be, in Chapter Two.

We have now described broadly the actual System, but it will be valuable for us to discuss briefly too the adjuncts to the System which aid its effectiveness.

Rowe admits that gaps may occur in pupils' knowledge, but beyond that he insists that oral expression is vitally important. He combines two

aims in discussion groups of four to six which meet periodically to discuss the various job-cards they have each completed. The boy who has just finished three job-cards on the subject of pressure is becoming an expert, and is keen to share his new knowledge with others who may have concentrated more on, say, mixtures and compounds, water purification, the composition of the atmosphere, and so on. In properly organised discussion groups these children exchange for half an hour or more the ideas they have acquired. Two pupils may have done the same job-card at different times — they discuss what they discovered in answering the questions. Discussions occur as needed, perhaps four times a term. Once again, Rowe claims, the urge of the child to talk about what he now knows is sufficient to overcome many of the difficulties of oral composition of the more usual types. If gaps in pupils' knowledge still exist after all that, they are likely to be no worse than gaps existing for other reasons in the knowledge of children taught under more conventional conditions.

There is no notion in Rowe's school that the Job-card System must exclude all other kinds of instruction. In fact, ordinary oral class teaching and demonstration of the kind described earlier is employed at various points to make clear vital principles in say, Mathematics. There are also two other complementary measures which he has adopted to cater for special needs:

(a) Mass-teaching. There are, says Rowe, a number of occasions when it is *profitable* to have very large groups together. Music, singing, drama, literature, art appreciation, films and similar aids, may all in certain circumstances benefit from the presence of two, three or even four classes at a time, perhaps in the school hall. The best teachers can then serve a wider group than one single class, and the additional numbers may actually make more effective a lesson involving verse-speaking or rhythm, for example. Naturally, in a school where one period per week per class is set aside for such exercises, staff are released. These staff economies make it possible for Rowe's second measure to be put into action:

(b) Tutorial groups. Small groups of three to six are essential in remedial teaching; there are remedial reading and writing groups meeting regularly in Rowe's school (again the emphasis on literacy) as well as arithmetic tutorials. These groups afford special help to the pupils in their first year or so in order that they may be able to join in with the general work of job-cards. The flexibility of the system itself enables them to leave their usual class to join the tutorials without unduly suffering through having missed much of what the teacher said, since the teacher may well have said nothing. Extra work at home enables them to complete an adequate number of job-cards where necessary.

May I again summarize by describing the actual conduct of a lesson using the Job-card System?

Pupils enter, collect job-cards and work material from cupboards, and sit at desks arranged in groups and singly; they begin work without command from the teacher.

The teacher moves round from pupil to pupil during the period, discussing progress and work, commenting and correcting.

Pupils are free to collect further job-cards and material and may request the teacher's attention.

At the end of the period the teacher makes any announcement necessary, then the pupils leave, replacing job-cards and materials or taking them for homework.

A Rhodesian experiment

Thus we see a combination of methods used in educating the less-successful secondary school-child, a combination which contains many of the favourable aspects of the Winnetka Technique, the Dalton Plan, and other systems, a combination which has been found to work successfully in English schools (Rowe has been headmaster of two), a combination which permits a change of the teacher-pupil relationship, and a combination which may well be adaptable to our own needs. At the risk of boring you, I want now to describe an adaptation of Rowe's System used in an experiment carried out earlier this year in a Rhodesian school, the results of which may indicate the possibilities for this Job-card System in other schools here.

For the experiment, two classes were chosen in a seven-stream city high school. They were third-year forms lying fifth and sixth in the streaming hierarchy, and on a group intelligence test (Thurstone's Primary Mental Abilities Test, see Rogers 1956) scored averages of 93 and 87 respectively. The class scoring 93 (called 3E) was taught a certain section of the Geography syllabus for C.O.P. by traditional methods, whilst the class scoring 87 (called 3F) was taught exactly the same section by an adaption of Rowe's Job-card system. The classes were shown to be similar in home background and other respects. The same teacher taught both classes, and both classes completed the same attainment test in Geography at the end of the experiment which lasted a term. This test was designed to examine both memory and geographical reasoning in the pupils.

Before I give you the results of the experiment, allow me to add a few more details which will help you to know how it was organized. Like classes in Rowe's school, 3F was supplied with a wide range of job-cards, in fact about 60. A target of 25 cards was set for the end of term for each pupil. The work was divided into 16 sections, and each pupil knew that a certain minimum number of job-cards should be completed in each section to ensure adequate coverage. Of course he was entitled to do more if he pleased. The actual time allotted on the timetable amounted to two 40-minute periods in school plus one 30-minute period at home, but no formal homework was set. Pupils were permitted to work at their own pace subject to the final target. No punishment was suggested for pupils not achieving the target, although the slower workers did receive more frequent visits from the teacher.

The answers to the job-cards were set down by the pupil in a loose-leaf file in which work completed under each of the sixteen headings could

be kept together. The job-cards themselves referred pupils chiefly to books and pamphlets, but also to picture-sets, atlases, film-strips, and so on.

A vital aspect of the experiment was that pupils were completely free to choose which job-card they wished to do next, within the general pattern.

The teacher's routine was to check progress, assess individual answers on a lettered-scale (which assessments were entered by the pupil on his own personal mark-graph), and assist any pupils who requested attention, although very few actually did request such aid.

Once a pupil's work had been assessed he could obtain from the teacher a blue answer-card from which it was possible for him to correct his own results. Periodic checks by the teacher showed that pupils were doing this properly. The answer-card was returned to the teacher.

During the course of the experiment observers came in on several occasions. Here is what one reported, having no idea what he was going to see before entering the classroom:

> "The first noticeable thing was that when the teacher walked into the classroom there was much general noise and everybody was on his feet moving books and generally getting things organized. The teacher did not say one word but allowed the situation to continue; it carried on in a modified form during the whole period. One soon realised that although there was moving about and general noise there was an atmosphere of industry. This was a group of sub-standard individuals responsible for their own work. One didn't have to speak to the pupils to find out they were enjoying the system.
>
> "One might think it is comparatively easy to consult various places of reference and note the answers down in a book in a mechanical fashion without really learning anything. When questioning various pupils about work which they had completed at the beginning of the term, however, I found that answers were of a nature proving that these pupils were definitely learning and making progress."

Another said this:

> "The class is completely free to talk, to walk around looking for job-cards, atlases, books and so on. No admonitions from the teacher; he doesn't interfere, but they *did* keep to their work. No trouble at all about discipline. The boys were genuinely interested in their work and seemed to take pride in the orderly arrangement of their work-sheets in their files. On being questioned by the observers some of the boys said they were voluntarily doing extra cards in their spare time so as to complete more than 25. There was a good deal of movement, some chatting, but many worked quietly on their own."

Finally, you may like to know the results of the attainment test. The same test was administered twice, once at the end of the term, and again immediately after the holidays without previous warning. On the first

test, both classes obtained the same marks, statistically speaking. On the second, the same result was obtained. In addition, during the course of the experiment attitudes towards school as measured by paper-and-pencil tests showed immense change. 3E began the term roughly equivalent to 3F in attitude. By the end of the term 3E showed marked decline in attitude, and 3F marked improvement. It would be wrong to suggest that these changes were due entirely to the experiment, but they are interesting to note.

The 3F pupils voted twice, once before the first attainment test, and once just after it, on whether they thought the system better, more helpful and easier to learn by than conventional work methods, and on whether they would prefer to continue using job-cards. Like de Gaulle's referendums, the result was an overwhelming "oui"! Altogether, one could say that the experiment was successful in helping the less-successful. It was limited in extent, and cannot be regarded as "proof" but it may be taken as a reasonable indication of the type and quality of reaction to be expected in similar circumstances in other schools. Certainly it affords a basis for discussion.

In these first three lectures I have attempted to point out the most important features of the circumstances in which we work, to underline, perhaps rather heavily, the red figures on the teacher's side of the accounts, and to suggest a few ways in which, in my opinion, it would be possible to bring into action amongst less-successful secondary school-children our motto: *Ex humilibus excelsa* — from lowly beginnings the heights are reached.

D. G. Hawkridge.

DISCUSSION

The general discussion on the topics of the three Chapters was rather a quiet procedure, which seemed to indicate that most of the material had received exhaustive treatment in the organised discussion groups.

In discussing Chapter One most of the main points made by Mr. Hawkridge met with general approval. However, his examination of the Primary School system did provoke some discussion. It was admitted that inefficiency at Primary School level did complicate the issues for General Side Secondary School teachers, and that the spotting of retardation, especially in reading, was vital in the Pripary Schools. But it was also stated that, with the use of remedial specialists and classes — not clinics — organized by the Primary School teachers, there was a definite possibility of eliminating reading retardation at this level.

Chapter Two had two crucial points. Mr. Hawkridge posed the question of whether parallel development in all streams at Form I level was realistic or desirable. Contingent upon this was his view that the avoidance of high percentage of failure marks was vitally necessary for the sake of the pupil. These issues provided the opportunity for some lively interchange of views. It was suggested that the only possible justification for

the use of an all-encompassing test was that it provided the parents with accurate comparative information.

There was a general feeling that the difficulty, as far as parallel development was concerned, lay in the first forms. The suggestion was that parallel development should be aimed at in at least the first 6 months, and then streaming decisions should be made. Everyone seemed to agree with this opinion.

The material of Chapter Three was not discussed, due to lack of time, but the Chairman, Dr. C. A. Rogers, suggested that is should be covered by the organized discussion groups.

CHAPTER FOUR

REMEDIAL TEACHING

Mr. Hawkridge, in Chapter One, defined the essential characteristic of the 'less-successful secondary pupil' as having an I.Q. ranging from 70-95. Within that definition my lecture under the heading "Remedial teaching for the less-successful secondary school-child" will take approximately one minute.

Remedial services in arithmetic? In that particular I.Q. group no services exist and none are contemplated.

Remedial services in reading? Ditto.

Since however I am presently closely involved in the problem of reading retardation in the Junior Schools and since these pupils are liable to figure largely in future 'less-successful' secondary school groups, I make no apology for the fact that I propose to discuss, for the next 89 minutes, the situation from this angle.

May I draw your attention to the hand-outs before you now? I have made this hand-out available to you for a very obvious reason. All of us have studied the psychology of learning at some stage or other during our training courses but it may have been a long time since we have applied the principles in our teaching.

I believe that it is important to remember that the differences which exist between all of us here apply equally to our pupils. We don't all comprehend terribly well on a verbal plane. Some of us comprehend rather more adequately on a visual plane. Those of you who, like myself, are visualists, have the comfort of the summary below. The verbalists among you need not worry about it unduly but I think, since you are all now in a learning situation, that you will need to have some general indication of what will be my coverage. I will run through it briefly.

Point 1. Distribution of intelligence.

Point 2. I dismiss remedial arithmetic because no remedial arithmetic is contemplated in High Schools. I shall therefore confine all my remarks to reading.

Point 3. What is reading retardation?

Point 4. What are its causes?

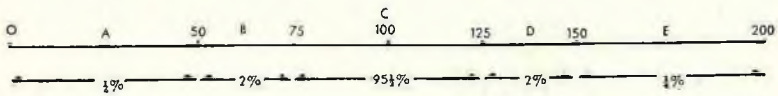
Point 5. What reading retardation has already been detected?

Point 6. What has been done to remedy this reading retardation? What are the techniques applied?

Point 7. What is the outlook in the Federation compared with the present position in Europe and America?

I think it is essential for any group studying any topic to have an overall picture of what they are going to study before they get down to specific details. I believe that if we ignore this factor we shall get learning retardation in this group in the same way as we have reading retardation in many of our school children — and possibly for the same reasons. In other words, the application of the wrong techniques and the ignoring of techniques which will allow all *persons* in every *group* to benefit from a particular learning situation.

Much has been said by Mr. Hawkridge and Dr. Rogers on the reservation which one must place — and most of us do — on the testing of intelligence. I like Dr. Rogers' use of the words "measureable intelligence". As far as I'm concerned intelligence is the result of an intelligence test and that's about as far as we can go on it. Since so much has been said about the distribution of intelligence I plan to take it one stage further. I shall take it into the visual field and give you a picture of what the distribution of intelligence is likely to be in any population.



We could theoretically distribute I.Q.'s from zero to approximately 200, with 100 being our mid-point. We could make further equal and neat divisions at 50 I.Q. and at 150. We could make similar equal divisions at 75 approximately, and 125, and then we have a fair idea of the actual distribution. I think it is important that we should know what the actual percentage position is in each category so that you will not only focus what you know about the 70-95 I.Q. group but also see it in relation to the rest of the distribution. The group from 75 I.Q. to 125 I.Q. would represent approximately 95 per cent of the population. The group from 50 to 75 would occupy approximately 2 per cent. The group from 125 to 150 a similar 2 per cent and your extremities from zero to 50 approximately ¼ per cent,. and 150 I.Q. and above another ¼ per cent. To anticipate the mathematicians who would be hunting for the missing ½ per cent., I would add it to the 75-125 range.

The immediate implications from the educational point of view are these. Facilities are made available for the education of the educationally subnormal group — B. They are placed in special classes where they will average approximately 12 pupils to one teacher. No appropriate facilities are available for the 2 per cent. — D at the other end of the scale. In the area below 50 I.Q. (A), the children are so low in their intellectual capacity that they are required by law to be excluded from school entirely as being ineducable. For them facilities are gradually becoming available — at the St. Francis Home in Bulawayo and in the various Hopelands organisations. But again, at the other end of the scale — E, no facilities are available.

We actually, from an educational point of view, draw our line at 50, so we have in fact more intelligent children in our schools than we have unintelligent. We have special facilities for the low I.Q. group that we do retain in the schools — Group B — and we do not have appropriate facilities for Groups D and E, so it seems to me that two things are happening. We are attempting to bring Group B to perform as though they were in Group C and, at the same time, we are allowing Groups D and E to become so retarded as to also end up in Group C.

I have said all this as a background to the discussion on remedial work because I must go ahead and discuss with you reading retardation in general. What is reading retardation? By definition — a child is a remedial case when that child has an I.Q. of 90 plus (you see how quickly I am getting to the top end of the group 70-95 I.Q.) and whose reading age is two or more years below his mental age. It is usually assumed that all teachers are familiar with the term 'mental age' but I think it is worthwhile spending a moment or two on this subject. I know that teachers have all studied mental ages in the course of their careers but obviously they have not necessarily met all the mental ages all the time and therefore, at the risk of boring those of you who are thoroughly familiar with mental ages I am just going to have a word on that.

Looking once again at our distribution graph we will assume that we are discussing only the age group of 10 and again you will see that the children in this age-group will differ in much the same ways as I have already demonstrated. The child with the average I.Q. of 100 will obviously have the mental age of 10 and I say obviously because the I.Q. is usually calculated as mental age over chronological age and multiplied by 100, which makes life a bit easier because it disposes of decimal points. So, as I have said, the mental age of a child of 10 who is average I.Q. must of course be 10. The mental age of the child bordering on the ineducable barrier will, at the age of 10 be 5 and similarly, the child at the other end of the scale with an I.Q. of 150 at the age of 10, will have a mental age of 15. Now, reading retardation is not concerned with chronological age! I regret to say that the principle of making comparisons between the child's mental age (mental capacity) and his reading age, is still not generally used. I strongly suspect that in a vast number of cases the child's reading ability is still rated according to his chronological age. But, look at the graph and you can clearly see the faults in this method. Our child of 90 plus I.Q. has a mental age of 9 plus and so on up to our 150 I.Q. who has a mental age of 15. I imagine that the bulk of teachers would be pretty satisfied if the latter 10 year old read like a 12 year old but, in actual fact, if he does he is 3 years retarded, relative to his mental age. The significance of this fact is that we have as great, if not greater, reading retardation at the upper end of the intelligence scale as we have at the lower. (I strongly suspect that it is far greater at the upper end of the intelligence scale where the children are not being pushed according to their capacity but are being allowed to work as if they fell into the normal pool). At any rate, there is your definition of what reading retardation is — an I.Q. of 90 plus and a reading age of 2 or more years below the mental age.

I would like now to spend a few moments on the actual causes of reading retardation.

1. *Physical.* Obviously a child who has a severe loss of hearing or of vision is not going to be able to benefit from the type of instruction given in the normal infant classes. However, gross hearing loss is very easy to detect — noticeable by every teacher — and the same goes for gross visual loss. Partial hearing and partial vision are less easily detected. You have probably all heard of some child who has been suddenly diagnosed, perhaps at the age of 10, as partially sighted. Hearing loss is even more difficult to detect because it varies so very considerably. The bulk of children suffering from some type of hearing loss are children who have a high frequency loss of hearing. They would not hear some high pitched voices but would hear a low pitched one. They might not hear the female teacher or alternatively might be more comfortable with the male teacher — who of course rarely teaches in the infant class. In the infant class, when you have a teacher with a high pitched voice and the child has high frequency loss, 50 per cent at least of what that high pitched voice says will not be reaching the child's brain and that child will be described regressively as unintelligent and subsequently, as having very little by way of concentration. There are many other physical factors. One of the most obvious is that of the child who is basically left-handed and is switched on to the right. This may on some occasions give rise to difficulty. When we are basically right-handers we write from our body and away and we read in exactly the same way. When a left-handed child attempts to do the same — writing from his body and away — then you get mirror-writing and the same happens in reading, where the word 'saw' is actually mirror-read as 'was'. There are the gross physical factors but since they are so observable they need not concern us here. I am thinking of the cerebral-palsied or polio'd, or any other specific physical defect which is not remediable and which is likely to lead to a disturbance in the reading ability.

2. *Emotional.* I could spend a lot of time on this but since I am unable to I shall just take one particular emotional factor which might lead to reading retardation. This is the case of the child deprived of maternal affection. You will readily understand that if the relationship between a child and its mother is broken, particularly during the first 2½ years, and if the child then has to create a new relationship with a substitute mother and if this substitute mother in turn disappears (as might easily be the case in an orphanage, for instance) then a resistance to establishing any type of relationship with any type of woman is gradually building up in this child. Place him at 5 plus in your Infant School and in that first year, as your infant teacher will tell you, she is in fact a mother substitute. The child may by now be unable to establish that relationship with this mother substitute and so the infant teacher is unable to have this child learn by imitation of teacher. That is just one type of emotional factor.

3. *Educational.* In all of the many researches done on reading retardation it has been indicated quite clearly that very rarely can reading retardation be traced to poor teaching, so I shall not touch on poor teaching but deal with other educational factors.

The first and most obvious one is the application of wrong methods or the lack of appreciation of the fact that there are individual differences

in all of us and that these individual differences are present in children in exactly the same way as they are present in adults. You all know that a vast change-over in the teaching of reading has taken place within the last two decades. I should imagine that, in this country, the major move from the initial phonic approach to the initial visual approach took place 10 to 15 years ago. Now I have studied this transition in three countries and in all of them the same thing has happened. Infant teachers who have grown up with a time-honoured technique, having been instructed to change to the visual attack, have almost invariably interpreted this to mean that they must abandon the old phonic system altogether and use the new system (which in fact they may not like or trust). Now I defy any infant teacher to produce any research or discussion which has instructed her to do this, nevertheless the reality of the situation has been that the emphasis has swung to the child in the Infant department starting on the visual system rather than the phonic; rather than the child being introduced to the phonic system before the end of his third term at school. All that should have happened was that the *starting point* was altered but both *systems* should have been operating. It would be quite ludicrous to suggest that one or other system should be used exclusively, because we do all differ. If you considered your own memories you would find this point quite clear. I have a very good visual memory. I shall remember all the faces I am looking at now for some considerable time. If I met you in the swimming baths at Bulawayo in three years' time I should probably wave to you. But who you are, what your name is, where you belong, I haven't the faintest idea, because you are out of context. In other words, mine is basically a visual memory. If I were to sit down here and be lectured at for a year I should at the end of that year have little idea of what was going on. If, on the other hand, I were presented with a visual pattern which gave me a focal visual point on which to hang all the ideas presented verbally, then the two factors would coincide quite happily. Among you will be many who have excellent verbal memories. You remember far better what you hear than what you see. So it is essential that we should cater for children in both types. (Another type of child I will come to later when discussing the remedial work at present being done).

One important educational factor is present in this part of the world to an extent unusual in most other countries. I refer to the tremendous shift in the population. It is not unusual to find a child of 8 who is attending his fourth, fifth or sixth school. Many children at the end of their junior school career have attended half a dozen schools, very often with major breaks of weeks or months between leaving school A and arriving at school B, and in the process of settling into a new school more time is lost. I believe much the same goes for teachers. There is a tremendous movement of the population — of the entire population.

There are other educational factors but I have probably touched on the main ones.

Present reading retardation: As things stand at present I can only speak on this point relative to my own Salisbury region — the top half of Southern Rhodesia. In Std. 2 we automatically test the abilities of all pupils. We follow this up with a similar and extended battery of tests at Std. 4. This programme was introduced in 1958 and it is now possible to look at the results in Std. 4 of all children right up to those

who this year are doing Cambridge. All of this year's Fourth Formers were tested in junior school. In case some of you are calculating — in 1958 we tested Std. 4 and 5, so the Standard 5's of 1958 are this year in Form IV. It is possible now, for the first time, actually to follow the career of a child from its junior school right to what, for most, is the end of their High School career. Alternately, we can follow the child's performance from Std. 2 in 1958 to his Form II of High School. Any significant type of retardation which appeared in the Std. 2 pupil of 1958 can be checked. We can observe what happened to a particular pupil in 1960 in Std. 5 and we also know what is happening to him in High School. When we look at specific cases we can be rather more sure of our ground than we can working on large groups where, statistically, all sorts of strange things may be going on. But let us look at the large groups in the first instance. I have recently done an analysis of reading retardation. (You will I hope bear with me if I remind you that in my definition a reading retard is a child of I.Q. 90 plus, in other words average intelligence, whose reading age is 2 or more years below his mental age). The analysis conducted was on all 15 Grade I schools in Salisbury. The average percentage of such reading retardation is 25 per cent. in Std. 2 of Grade I schools in Salisbury City. What then is the position by the time these children reach Std. 4? Far from remaining static at 25 per cent. the position deteriorates and at Std. 4 the average percentage is in the vicinity of 30 per cent. Now why is this happening? We do know that in Salisbury City the bulk of children (I would go as far as that) leaving the Infant Schools do so as fine, really tip-top readers, well up to the level of their mental capacity. Why is it that by Std. 2 serious retardation has set in and why is that by Std. 4 the situation has deteriorated? My opinion is that it is assumed, particularly in the Teacher Training Colleges, that the only place where you need to employ reading specialists is in the Infant years — Infants I and II, the assumption that by the time the children get to Std. I (and this in my opinion is the biggest jump they are ever likely to make, and I mean bigger than the jump from Std. 5 to Form I) they will be able to read quite adequately (quite true) and that with just a little bit of assistance during the rest of their five years in junior school the improvement will be maintained. This just does not work out. Mr. Hawkridge quoted a figure (for a British Secondary School I think) of 8 per cent. of entrants having reading ages below 7½. In other words, the reading ages had reached a particular peak and nothing else had happened for the next five years.

I make this point rather strongly because I believe that to involve ourselves in thinking in terms of remedial work in High Schools is a totally uneconomic proposition. For two reasons. Firstly, the limited specialist manpower available must be directed towards reading retardation in the junior school — and preferably as early in the junior school as possible. Secondly, if you are to involve yourselves in remedial reading at secondary level, say Form I or II, you are only going to be doing stopgap work. You may attempt to give children the purely mechanical equipment with which they will be able to learn to read, but are quite unable to fill the gap in their education which has occurred because of their inability to read over some seven years: and if over a period of seven years the children have not learned to read, the chances of teaching them to read in the time at your disposal in High School are exceedingly slim. What reading retardation has been detected? I believe that in High School you are inheriting something which is going on in Junior School and as far as remedial work in High

Schools is concerned I don't believe it is economic to consider that you can do anything about it.

What remedial work is in fact being done in Junior Schools? First of all we have now in the Salisbury Region, and I must further restrict myself and say Salisbury City, two peripatetic remedial teachers. These teachers move around all day. They visit six schools in a week, each school for half a day. In addition, instead of afternoon activities, these teachers are taking children from schools, other than the six they normally cover, by bringing them into a base school for afternoon sessions. All the sessions are the normal school period in length and the children work in groups of basically four. (I think you will agree that two remedial teachers are not going to make a very great impression on the reading retardation of hundreds of children in Salisbury City alone, quite apart from what is happening out of it). Secondly — and because of the limited specialist staff available — there have been instituted a number of reading clubs which are at the schools themselves and deal only with children from that particular school. As headmasters and teachers become more and more aware of reading retardation within their own school they set up some kind of reading club, which means that they will probably take say a kindergarten teacher and use that teacher on certain occasions to teach children who are out of kindergarten to read.

What techniques are applied? I mentioned earlier the verbal and visual memories. I can dispose of these quickly now because we are trying to find out whether the child is stronger on visual memory or on verbal memory so that we may adjust our teaching accordingly. The third memory is the kinaesthetic. This is rather interesting because there are many children who are normally intelligent and who have not necessarily a high level of visual or verbal memory. When this happens in a highly intelligent child he is going to be severely retarded in reading, and here we employ the kinaesthetic — the tactile system. We could say — to use a somewhat loose medical term — that some of these children are word-blind — they see the word but they don't know what it means. If in fact the child were totally physically blind we would teach it by means of Braille and this is the basis of the kinaesthetic method: to get a link through the tactile sense. We all possess this sense, not developed perhaps because we have had our eyes and ears to help us, but we do all have it and this can be developed in a great number of children to allow a greater contact with the memory — to supplement the poor factors. The kinaesthetic attack is a rather special way of handling this and for this reason it is predominantly limited to the peripatetic remedial teachers although some teachers in charge of reading clubs are also handling reading on this system.

What is the outlook in the Federation compared with the present position in Europe and America? Lest I sound pessimistic, which I am not, I shall tell you that reading retardation was only recognised on a national scale in Britain 15 years ago. This happened largely as the result of experiences during the war, when a large number of persons who were supposed to have attended school turned up in the British Army totally illiterate. When this factor was disclosed in Britain and at the same time in various other parts of the world — America included — it became obvious that something had happened to these unfortunate adults through-

out their school career. The first question was: are these illiterates unintelligent? Some were and some weren't but, as was proved by subsequent work, these adults could, with the appropriate specialist assistance, be taught to read. One wonders therefore how much more efficient it would have been had this been done at junior school level. Inevitably, after the war, education authorities became more and more interested in this problem and with the growth of educational psychology it became more and more possible to diagnose these children's difficulties. You see the 10 year old I mentioned originally who, at the age of 10 read like a 12 year old would for years have been assumed to be doing extremely well. It is only when it is ascertained that the child has a mental age of 15 or more years that he then becomes an educational problem and exactly the same thing happens at the other end of the scale. If you have a child with a mental age of 9 and a reading age of 9 there is a reasonable degree of satisfaction if that child is a 10 year old, despite the fact that he is one year retarded. That is really no major cause but when you get a major discrepancy, if a child has a mental age of 9 and a reading age of 6 at the age of 10 then of course he is 3 years retarded. In other words it applies to both ends of the extremities equally well.

The first analysis of the incidence of reading retardation in Britain disclosed a probable incidence throughout Britain of a school population of 20 per cent. of reading retardation — using the definition I have used here. In Denmark, a country using a language rather more phonetic than our strange one, the incidence is anticipated to be 15 per cent. When these fantastically high figures were disclosed — they considered 20 per cent. to be fantastically high — facilities were immediately made available by means of reading centres, peripatetic remedial teachers etc., etc., and these are situated throughout Britain at this time. In Denmark, in view of the seriousness of the situation, every junior school of more than 400 pupils has a specialist remedial teacher attached to its staff as a full timer. In the northern Scandinavian countries — Norway and Sweden — the situation has changed quite dramatically. The education reports from these countries in 1947 indicated that no specialist facilities whatever were available. Ten years later a second U.N.E.S.C.O. research indicated that the specialist facilities were almost as adequate as in any other part of the world. What had happened? The problem had been recognised and the appropriate measures taken. I hope that we will learn from these countries. I do not think that it will be necessary to prove by the deterioration of our own children's reading ability that remedial work is required. When I think of what has happened in the short time that reading retardation has been recognised in this country I am most optimistic. I feel sure that we shall have little to complain about if a similar comparison to that done in Sweden is made here over a period of ten years.

H. H. Hall.

DISCUSSION

The discussion revolved largely around Mr. H. H. Hall's main point that remedial teaching should take place only at the Primary School level.

In his introductory remarks, the Chairman, Mr. D. Eccles challenged this view, and several speakers supported his argument. They posed the question of whether the mechanics of reading was solely a problem for the Primary Schools, and they questioned in addition the adequacy of the present reading pronunciation test. Was the problem that of an inability to pronounce, or rather a lack of comprehension? Mr. Hall's reply, which met with apparent approval, was to the effect that recognition of words was surely a prerequisite for comprehension.

The general consensus of opinion was that, although remedial work in retardation *should* be completed at the Primary School level there was at the moment a definite need for remedial work in Secondary Schools. Mr. Laurie put forward the suggestion that to meet this pressing demand, courses should be established for the production of remedial specialists, and also for those presently involved in General Side work, who wished to attain a minimum working knowledge in this specialist remedial sphere.

In conclusion, Mr. Eccles stated that the onus was still upon the teacher to build upon the individual child's interests, to know, to aid and to sympathize with their needs.

He quoted this fable:

"Once upon a time, the animals decided they must do something heroic to meet the problems of the 'new world.' So they organised a school. They adopted an activity curriculum consisting of running, climbing, swimming and flying. To make it easier to administer the curriculum ALL the animals took ALL the subjects. The duck was excellent in swimming, in fact, better than his instructor; but he made only passing grades in flying, and was poor in running. Since he was slow in running, he had to stay in after school and also drop swimming in order to practise running. This kept on until his web feet were badly worn and he was average in swimming. But average was acceptable in school, so nobody worried about that, except the duck.

The rabbit started at the top of the class in running, but had a nervous breakdown because of so much make-up in swimming.

The squirrel was excellent in climbing until he developed frustration in the flying class, where his teacher made him start from the ground up instead of from the tree-top down. He also developed fallen arches from over-exertion and then got "C" in climbing and "D" in running.

The eagle was a problem-child and was disciplined severely. In the climbing class, he beat all others to the top of the tree, but insisted on using his own way to get there.

At the end of the year, an abnormal eel, that could swim exceedingly well and also run, climb, and fly a little, had the highest average and was valedictorian.

The prairie dogs stayed out of school and fought the tax levy because the administration would not add digging and burrowing to the curriculum. They apprenticed their child to a badger, and later joined the ground-hogs and gophers to start a successful private school."

(Dr. G. H. Leavis,
Assistant Superintendent, Cincinnati Public Schools).

P.S. Does this fable have a moral?

CHAPTER FIVE

VOCATIONAL GUIDANCE

I find myself in a most unusual, not altogether unpleasant situation: on the outside looking in, when for so long I have been doing vocational guidance *in* school, very much on a part-time, voluntary basis, and now find myself able to give all my time and attention to my own private practice.

The most difficult work perhaps in vocational guidance is with the brilliant child and the backward child. In-betweens are easy because obviously they have a fair range of ability and a good number of opportunities are open to them in employment. With the brilliant child, the abilities are there and the opportunities are there, but we must of course approach this with a tremendous sense of responsibility. We must take a very long view if we are to guide these people into the paths which will lead them to the realisation of their highest potential, for their sakes, the country's sake, or humanity's.

With the backward child, the problem is an exactly opposite one. There the range of abilities is comparatively restricted and we shall have to be very ingenious in finding, in discovering ways of employing these abilities after school. I should suggest therefore that the greater part of a careers' guidance programme should involve job analysis. A tremendous amount of job analysis. Finding out about jobs; what they are like inside; what they demand of one; what the qualifications are; what the rewards are; what they lead to. Therefore we must learn, constantly learn, more and more about the jobs, and we must turn ourselves into advice centres where the boys and girls can come and ask for concrete information about jobs. Apart from giving the information ourselves we shall of course build up a tremendous — I hope it's tremendous — library of books, pamphlets, brochures about various jobs (here we are given one straight away by the Department of Labour, who put out all these wonderful pamphlets on various careers), but of course we'll want to send to industries, commercial undertakings, and so on, and gather up our own collection of brochures as well. I should think most people who are engaged in vocation counselling just now have got Chaffey and Edmonds (publ. Cleaver Hume, from most bookshops), somewhere or other, that careers encylopaedia which I always drop a word about each time I talk about Vocational Guidance, and this time I've brought along something else as well, the Batsford Career Books (publ. Batsford Press, Rep. Mrs. J. Lindrea).

I brought this one on teaching because I thought this would appeal to most of you. That is a wonderful collection of books — the Batsford Books — it gives you a real day to day insight into the job that it's speaking about, and it doesn't just talk on one level, it takes you through all the various strata within that job (I know in teaching there aren't just so many strata but still it does touch on all aspects of it). In other occupations there are various strata and it goes very fully into all of these, and it doesn't just paint a rosy picture, it shows you the drawbacks very starkly as well, and it does outline the qualities that are needed if a person is to be successful in the career they are describing.

Apart from information, whether by word of mouth, or by means of a display of pamphlets in one's Careers Room, there must also be other ways for the boys and girls to find out directly about careers. Visits, talks, films. Churchill School have also managed to have a weekly project on, except during the holidays. The first two terms we have visits every Friday. The last term at school we have talks and films, and end up with tea, so that if they don't come for anything else they'll have the tea and cakes and they'll hear a lot that's useful on the way. That's quite deliberate you see on my part. There are drawbacks to this, particularly the visits. It all looks very pretty on paper, and I have a thrill when I've gone through my 150 to 200 'phone calls and at last got everything lined up for the year's programme. But, after all, each Friday, only 25 boys can visit a factory, or whatever the concern they're going to see. Of course when it comes to the Air Force, I have to turn aside about 300 who would like to go and there just isn't room in the lorry for them. The times that this need has been satisfied I think were when the University Womens' Association put on that Careers' Day in the University here and did such an excellent job of it, and again at the Commonwealth Training Week, where for a whole week young people had access to information on the spot, on the job. I wonder if it would be possible to get Commerce and Industry to do this sort of thing frequently? The banks now put on a yearly training week, a banking week it is called, when boys and girls are welcome to come and see what goes on in the bank. If we could just get the others to do that, then careers visits would really be worthwhile and large numbers could go to them. Talks and films are quite good because you get a bigger audience to that, more people can hear about it, and particularly if the film backs up what the talk has been about, then they go away having seen something. And so a great amount of your careers programme will be concerned with this disseminating knowledge about jobs.

Before I go on to the next part of the careers programme, which of course is the testing part of the programme, I should like to suggest something else which you can all do, and that is sending out careers post-cards. I have a follow-up service which goes on every six months for three years after the boy has left school or University, whichever the case may be, and I get these post-cards back. I took a bunch of the 1958 ones (I mean the boys who left in 1958), recent post-cards that have come back. If you will bear with me I will read one or two.. This boy says he is in the B.S.A. Police and tells me the place. Type of work: investigations. Successes or failures to report: commendations on the something-or-other investigation. (I don't know what it is), and a degree in Police Photography. Are you happy in your work? — Very. Have you any desire to change? — None. Are you studying for further qualifications, details please — Promotion 1963, and Lower Law. Further remarks: dealing with all types of investigations and very happy in my work. Would not change for anything.

And then here's an unusual one which will amuse some of you. This boy went in the Army and I was a bit doubtful about that because that had not quite been my diagnosis for him, but he had other ends in view as you will see and these I thoroughly commended, for him particularly. Place of work: Millbank, London. Type of work: Nursing. Successes or failures

to report: Second year qualification. Are you happy in your work: Yes. Have you any desire to change: No. Are you studying for further qualifications: Yes. Details please: State Registration. Further remarks: Returning to the Federation as S.R.N. in the Rhodesian Army. I give that boy full marks.

And here's another chap who was the best cadet in Passing Out Parade. This one is doing fine in maintenance of telegraph equipment, passed all exams. so far, and in further remarks he says: I feel that this is definitely my line of work. They don't all say that, naturally. There is an occasional one who doesn't terribly like the work he's in, and he's changing to something of a similar nature. Then it comes up the next year — he's enjoying that.

So I suggest that you do carry out a follow-up service. It will be your best judge, your best friend, your best critic. You will know what quality of work you are doing when you get back these post-cards. They are very easy to operate — put your own name and school on one side and all these questions on the other. Send it out to them under plain cover with no name on the card at all and give each boy a number so that his name doesn't need to appear. I have an index where I look up the number and find out which boy is replying, so they don't need to feel at all shy about replying and indeed they are not.

Well that is the *end* of your guidance programme, let's get back to the middle of it. You have now set yourself up with lots and lots of information, quite a number of ways that the boys can find out about careers apart from you as well, and you start into your testing programme. I am still advocating the seven-point plan; the National Institute of Industrial Psychology propounded this one many, many years ago, and I don't think it ever has been bettered. The first three points can be judged quite directly — (1) physical make up (2) scholastic attainment (3) home background. The next four points require testing or assessment at least, before we can give a result on them. These four points are: intelligence, interest, aptitude and personality. Now we have heard so much about intelligence, pro and con, that I feel really to say much more about it would be quite unnecessary, but one thing I must say, particularly about the type of boy and girl we are concerned with here: a group test will not do. You must be in complete control of the testing programme with these people, or they'll go to sleep in the middle of it, or something will happen, and really you won't be able to trust the results of your test. Now individual testing of course is a matter for the psychologist, and when you feel that that requires to be done I'm afraid you'll have to send the boys and girls to Mr. Hall or send them down to me. The next point was interest, and of course you, large numbers of you anyhow, will have your Kuder Interest Tests. It is an excellent one. The only other that comes near it I think is Strong's, and Strong's is most laborious to mark; you have to mark it all over again for every career that you wish to judge for this child. You take the results and you score them for accountancy, you score them for lab. assistant, you score them for teaching, you score them for whatever you are doing. Whereas with Kuder you take out, as you know, the results under ten headings and then you learn with experience that these ten headings can be combined in various ways. The most obvious one perhaps is computational/clerical for accountancy and banking, that range of work; outdoor/

mechanical/scientific and social service I find usually makes a pretty good farmer. It's a bit difficult when you get it on a girl's — you have to say 'farmer's wife', and find what she's to do until then! As a result once one has become really conversant with that test you find that you have something very diagnostic in your hands. It has one danger, which I don't think many people now will fall into, and that is presupposing ability from an interest test. These tests do not measure ability: they measure interest, and therefore we have to corroborate the interests that come up high or else not corroborate them, whatever the opposite of that word is, by aptitude testing. When you find aptitude and interest going hand in hand of course then it's quick — there is something there. When they diverge there can be a number of reasons for that: you may find a high interest and low ability, low aptitude. That probably means that the child has some hero figure — an uncle, or a father, perhaps his father is an engineer, so he wants to be an engineer. With a girl her mother had been a nurse before she married, and she's heard such a lot about that, or perhaps a great friend has gone nursing and she wants to be a nurse too. But not knowing what is involved in these jobs, while the interest is high, the aptitude is low because much as they would like to be that, they haven't got the aptitude for it. You may find a high aptitude and a low interest — that's usually because they don't know what the job entails, or if you dig a little bit deeper you may find that there is something else as well which you've got to find out about.

Aptitude tests now: we have Differential Aptitude Tests, but I prefer N.I.I.P. ones myself, I find them more searching, they give you a more whole result, a more varied result, each test really in itself is rather a battery of tests. The sub-tests tell you quite a lot, but they are again, like Strong, more difficult to set, very laborious to score, and it means that you won't be able to test so many people with them. D.A.T. is excellent in that you can do large numbers, and it does give you results in a profile form which you then can compare with Kuder. That of course makes it very easy for both child and parent to assimilate the information that you wish them to have.

Personality is the last of the seven points, and there I like to use an objective test. The two best ones I have are Bernreuter, and Cattell— his 16 P.F. or his H.S.P.Q. (High School Personality Questionnaire). These are really excellent tests. I have been using them for a long time now and find them well worthwhile. The 16 P.F. , as it suggests, tests the sixteen personality factors, and once you get them out of this test you have a talking point in interview, and you can observe and criticise these sixteen points yourself while testing the child and in interview.

Last of all, you come to the interviews themselves, and that is maybe the most important part of all the testing side of the programme, but I do think it needs those objective tests to back it up. I like to have an interview with the child first and then end up the testing programme with an interview with parents and child. What happens if parents don't agree with your diagnosis? I think that you will all agree with me that there are many, many parents, all of whose ducks are swans, and who find it very difficult to accept the fact that it isn't a cygnet after all. But one has to go very soft-footed on that one, and very understandingly to get the co-operation of the parent and the child and to give them a proper outlook. That is

where the whole testing programme is of such tremendous help because you are not saying (at least I hope you are not saying) as a result of having totted up some scoring cards and made out some profiles—'Oh yes, you're going to be an engineer'. Or, 'I think you'd do well in nursing.' Instead, the idea is to present the child and the parent with the results of these tests I usually come out first with the personality assessment. I hand it across and I say 'Now there's a pen, have a look at that, see whether you think I've hit that fairly well. Please don't be shy about saying that it's wrong on any point. Just take the pen and score it out if you think it's not right. Do remember, this isn't my idea. It's the result of an object test. It's the result of Peter's replies to a number of questions. Some of the questions are rather difficult, he may have made a mistake. It's possible for it to be wrong. Please do criticise it openly and let's discuss it.' And I have learned to trust this test. They may niggle about a little bit, then I say 'Right then that's out. You know your child so much better than ever I can,' and then usually all is well. I remember one little Frenchman saying, 'Mrs. Galloway, you have my son on this paper", which rather amused me. There you have the co-operation right away to begin with. They will recognise the truth of that diagnosis, something they have full experience of, they know the child, and if they see that that's the truth, then they are much more ready to accept the truth of the results of the other tests. So then you glide over the intelligence business, that he is not quite able to go to University, it would be much better if he looked for a career elsewhere— there are such openings. You have discussed these openings with him before of course, he has had the whole Careers Room at his disposal to read about these careers, he has been on visits, he has seen films, he has talked to you about it. There are all these other careers, we needn't worry that he is not to go to University, and what is he actually to do? He would like this, and there is his Kuder profile, and you explain it to them, and talk it over with them very, very fully, say that it doesn't presuppose ability, produce your aptitude test results, criticise the two together, get them to talk. Get them to discuss it most fully, and you'll find that when they go away after the interview they have a feeling of enlightenment. They have really learned something: it's been a maturing process if you like. The child has learned to criticise himself, to assess himself, to evaluate himself. The parent has been present at that process and has taken part in it as well, and if you find, as I've been finding, in a month or two, one is a boy and one is a girl, "Peter is a different boy since his tests: he's working again and he's going all out for Cambridge." "She knows what she's going to do, she's a happy girl: we get on so much better, the whole household is happier." When you find that, you know that the job has been adequately done, that the will is coming from inside the parent, to reach those ends, and when you discover that then your reward is complete. All the time, all the energy, all the work you've put into this business of vocational guidance is completely worthwhile.

Janet Galloway.

DISCUSSION

By the way of opening the discussion, Mr. Klette the Chairman used the two main points made by Mrs. Galloway in her talk — the need for more exhaustive job-analysis and the utilisation of a valid testing programme for less-successful secondary school pupils — as a convenient division and consequent ordering feature of the topic to be treated.

Mr. Klette was the first to draw attention to the immensity of scope involved in probing the suggested extension of job-analysis facilities. In her reply, Mrs. Galloway used a specific example to indicate that a 4-5 man committee per school was a workable, but hard-working, unit. A rapid show of hands showed that a very small percentage of schools had a fully-operative career service.

The testing programme outlined by Mrs. Galloway attracted many questions, which Mrs. Galloway handled in the following manner. On the question of how the programme was organised, she stated that it was spread over the year. It was developed along voluntary lines, with parental permission required for each pupil. It consisted of a series of of well-spaced appointments and interviews, which avoided any rush for the pupils, although the organiser was in no way so fortunate.

This lead on to the point of deciding at what stage such a programme should be introduced. Mrs. Galloway stated, that, in her opinion, the programme should be outlined at Form 1 level so that awareness of existing guidance facilities become immediately apparent to both pupils and parents. After this, the application of the actual testing programme was largely dependent upon the discretion of the examiner.

Generally speaking, Mrs. Galloway was against the idea of over-testing, insofar as such a practice would result in non-meaningful conditioned responses.

It was suggested that a full-time vocational guidance expert should be appointed to each region as soon as possible, and Mr. Hall took up this point by stating that, as some vocational guidance courses had already been completed, careers counsellors could go to educational psychologists who could handle the more awkward cases or supplement existing material with their specialised experience.

In conclusion, what emerged most clearly was the fact that the less successful secondary school pupil in Rhodesia was in a very difficult situation, and as such his position required every ounce of ingenuity from whatever guidance source was available.

CHAPTER SIX

VISUAL AIDS IN GENERAL SIDE CLASSES

The teaching of the less successful secondary school child is acknowledged to require patience and dedication, and one aspect of this lies in the planning, if necessary the making, and in the using of aids. It is felt that it may be helpful not only to high-light aids that would appear to have special value in General Side classes, but also to include information on books, the building up of an aid collection, the borrowing of aids, commercially-made aids, and the making of one's own.

Books

Though little has been written specifically on aids in General Side classes, there is an ever-growing number of books on the use and making of aids, which provide a helpful fund of ideas. Probably the most comprehensive of these is Edgar Dale's "Audio-visual methods in teaching", which contains an interesting background on the theory of using aids, together with chapters on their application in the teaching of specific subjects. All significant types of aids are dealt with, with the exception of television.

Building up an Aids Library

This is an undertaking that calls for careful consideration, whether the collection is designed to serve the needs of a particular class or subject, the wider requirements of a whole school, or to meet one's own needs as a teacher.

First, unfortunately, one must consider the question of *expense*: on the budget available must depend the scope of the collection and the rate at which it is accumulated. Secondly, there is the important question of *storage*: an aid collection that cannot be properly housed is an embarrassment, constantly in the way, and consequently easily damaged. Adequate shelving, cupboards and holders are a necessity, whether the collection is kept at school or at home.

Thirdly, *protection*: one can do much to prolong the life of individual aids, in addition to providing storage, by certain precautionary measures—binding the edges of maps with self-adhesive tape and reinforcing the corners where drawing pins cause damage, by using water-proof paints so that models can be washed, by storing smaller specimens in boxes, backing pictures with inexpensive paper, and so on. *Durability*: if an aid is worth putting into a collection, it is worth ensuring that it is strong enough to be reasonably durable. Slightly more expensive materials may sometimes turn out to be cheaper in the long-run.

Fifthly, one must consider the *manageability* of an aid. Is it reasonably portable, is it robust enough to be handled by the class if that is required, and are there adequate means of presenting it in the classroom—black-out, long enough flexes and suitable plugs for projection work, stands to hold models, places to hang up charts? Two suggestions

are made in this last connection—one is a strip of mild steel, painted to prevent rust, from which wall-sheets can be suspended by means of magnets (the strip of steel and screws cost 5/-, magnets are upwards of 2/6 each): the second method is to suspend the charts from a piece of string by means of clothes pegs. Other cheap and equally effective methods can be thought of.

The *usefulness* of the aid must also be considered. Will it serve more than one purpose, or if not, is its particular value of sufficient importance as to deserve its inclusion?

General Side classes in a secondary school might well be considered so specialized as to justify a separate library. Alternatively, lists of the aids most helpful in such streams might be kept as part of a school aids collection—if anyone can be found with the time to do this! Joking apart, such lists, including films and strips that can be borrowed, can be extremely valuable and time-saving.

There are three main ways in which we may obtain aids:

Borrowing Aids

The Audio Visual Services Library of the Federal Ministry of Education offers a very wide selection, and various commercial firms and consulates are helpful in this respect.

Commercially-made Aids

Some are obtainable free of charge or are comparatively inexpensive. Posters for example often make good teaching points, and unwanted wording can be cut off or masked.

Buying ready-made aids can be a justified outlay. For instance, a health flannelgraph of the human body (approximately 38/-) has been used most successfully in many schools. Good wall sheets are available, such as a wall chart of the banana, and a set on instruments of the orchestra. These give the learner an idea of the method of holding each instrument, and some indication of size (in relation to player). Colour is used consistently and helpfully in that all wood-winds are on sheets of one colour, brass on another, and strings on yet another.

Many commercially-made aids however contain far too much detail. Their cluttered appearance, excessively small diagrams and lettering etc., make them unsuitable for class teaching—The Life of Christ chart illustrates this point. Some of these aids are useful for reference purposes in academic streams, but are not recommended for the General Side, where the children cannot be expected to evince interest in such detailed material of their own.

Thus for many teaching situations, we must rely on aids of our own making.

Making your own Aids

Aid-making requires thought and energy, and is a time-consuming business, but the most expensive and elaborate ready-made aid is often not as effective as a simple, crude home-made effort, designed for a specific purpose.

So many new materials for aid-making are being put on the market these days that it is difficult for the busy teacher to keep pace with them but they can prove most helpful and labour-saving. Therefore, it is believed that a few hints on their use may not be out of place here.

Methods of lettering and colouring are worth noting. Felt tips are particularly effective for bold outlines, and cheap makes (at 2/6 and 3/6) are now in the shops. A simple freehand alphabet can be produced with a round tipped nib, but for those who prefer a more professional finish the Econasign brush stencils are recommended; the "Primary" kit (approximately 38/-) is used in the production of notices, for example.

Useful and time-saving in lettering work is a set of ruled lines placed under the paper to act as guide lines. Mistakes in lettering—so woefully easy to make—can be rectified by painting over the error with poster paints blended to the colour of the background.

Lettering, particularly with General Side classes, should be kept to the minimum.

Quick, inexpensive charts can be made with blackboard chalk, and this will not smear if the chalk is first dipped in milk or sugar solution. You can also spray on these liquids, though milk will show up on a dark surface. Perfix solution, obtainable in bottles, or, more expensively Aerosol sprays, will also set chalk and crayon. An atomiser for spraying on the liquids costs about 3/6d, but a home-made substitute of two narrow tubes held at right angles to each other is equally effective.

Most of one's ideas for maps and charts involve adaptations from text-books or the many excellent volumes with a visual approach that are on the market today. When making such adaptations, one often wants to *enlarge.* A good idea is to make a rough plan first. It is then possible to see where bolder effects, broader lines, etc. will be needed to make the chart visible from the back of a class room. Aids must always be big enough to suit the situation in which they will be used (whether they be maps, models or photographs) and a good maxim is "the bigger the better".

Chart maps and drawings should be simple; lines, colours, spacing should all combine to enable the viewer to pick up the message at the first look. When one is told that the black and red lines are the vocal chords of the human being one can realise this, but the significance of charts is by no means clear at the first glance.

Also of considerable help in aid-making are commercially or home-made templates or stencils; potato prints too can be very versatile.

Aids to help the aid-maker include such machines as rotary stencils (Gestetner or Roneo). The Gestetner firm offers an interesting service to enable teachers to put more complicated drawings on to stencils. A spirit duplicator (such as the Banda) is particularly useful for running off frequent and few copies, such as are likely to be required in General Side classes; it is cheap to run and easy to handle, and has the tremendous advantage of enabling one to use colour.

Aids and their application

Words alone are seldom enough in teaching situations. We understand new ideas in the light of previous experience and understandings, and where intelligence is limited and experiences are few there is a special need for aids to make our messages more concrete and vivid. We bring aids into the classroom so that the children may see and hear, touch, taste and smell, test and do: we bring their senses into play so that by experiencing they may learn. Aids enable us to put across teaching points in a realistic manner. When the learner can see a connection between what he hears in the classroom and his needs in the world outside, he is more likely to heed and remember. For example, the value of conciseness of expression can have greater significance if the "academic" approach is replaced by an exercise involving the composition of a telegram on a "real" telegram form (here the Banda machine can help), and the cost of sending a short or lengthy version is brought out.

Making and using aids can:

1) enable backward children *to develop whatever abilities they possess and to increase their skills* (e.g., in recalling what they see, hear, and co-ordinating their movements). The wide range of aids offers opportunities to meet different levels of intelligence;

2) *help build up a child's confidence in him or her self,* especially if quick successes can be achieved. Assurance is increased if the pupil feels he is "helping" the teacher by making aids that will be used in subsequent teaching situations—even perhaps in another class, by drawing on the blackboard (*templates* are helpful in ensuring correct outlines), by setting up electrical equipment and so on. In other words, aids should involve the learner in plenty of activity. Projects call for activity, and with the slow learner can require the making of simple models, dioramas and so on, not a great deal of reading and writing. *Gummed paper work* can be useful in this respect.

Inexpensive and quickly-made aids can be given to the class from time to time. It is pleasurable to receive a gift, and this can act as a stimulus. The Banda machine is useful for this purpose, as is the *newsprint board,* a variant of the blackboard.

Aids can be used to arouse interest. One method is to have a centre in the classroom for hanging *a few pictures.* These must be frequently changed and comment and inquiry about them encouraged.

Questions about reproductions of famous paintings, such as are obtainable on loan from Audio Visual Services, can lead to facinating stories with far-reaching implications. Pictures used in this way, however, should not be placed were they can distract the learner when other teaching points are being made—e.g. directly above the blackboard.

The arrival "by post" of *an outsize letter* in answer to an advertisement written on the blackboard can make a composition lesson more lively; such a situation approximates to one that the learner might well have to face outside the school gates. The specimen letter should be in the correct form—concise and to the point, so that it can serve as a model.

Projected aids can also be helpful in rousing interest. The bright light in a dark room attracts and focuses attention, while the whole idea of films and slides is associated in the children's minds with entertainment and hobbies—facts very much in the teacher's favour. The chief dangers to guard against are passiveness on the part of the viewer, and the putting across of too many ideas on account of the compressed nature of these aids. Six to ten frames are usually enough, though many strips consist of more than forty. For this reason it is often desirable, though not always possible, to cut strips and mount them as slides.

The tape recorder enables us to bring to life scenes from history, and also to let the children hear passages from poems and plays and novels that they would find too heavy to tackle on their own. Sound effects take the place of long descriptive passages so that attention is maintained by the action: pleasure may be derived, and in some cases, the stimulus provided to read the originals.

Excellent tapes are available, and it is an easy matter to make one's own for other purposes—e.g. to dramatize "real life" situations the children may later have to meet (opening a savings account, voting, etc.).

A further use for this excellent aid is oral composition. Children tend to lose their embarrassment with the machine, and since most of them like to hear their own voices played back (however unlovely!), the teacher is more likely to get co-operation in the exercise required to make the tape. The machine can be convincing in drawing attention to speech and reading defects, and no damage need be done if faults are pointed out in a kindly way. It gives assistance, too, in remedial work, for one sound can be repeated in exactly the same way as often as is needed. It is particularly encouraging if favourable comparisons can be be made between early and subsequent recordings, giving audible proof of the progress the pupil has made.

Opportunities exist for the development of skills if pupils are encouraged to work the machine and assist in the making of recordings. The class can supply sound effects for a story read by the teacher: a piece of cellophane crushed in the hand is a fire, paper bags can burst to suggest explosions. Perhaps the class can be encouraged to collect other ideas.

These are but some of the ways the tape recorder can be used; other procedures will suggest themselves.

Drama and mime can do much to instil confidence in the diffident. Perhaps even better with backward children is *puppetry*. Some will claim that an aid such as this belongs in the primary, not the secondary school, whatever the stream. The answer to this is whether the aid will work. Much depends on the teacher adopting the right approach. Recently a class of bright second-formers in a Salisbury school protested that they were not kids, when the teacher produced some mathematical models. They were soon interestedly working with them to their far readier appreciation of the concept being taught because the teacher's attitude was firmly persuasive.

The puppet theatre should be designed with storage problems in mind, so that it can be quickly dismantled and stored flat in a cupboard or against the wall. The height of the stand should be adjustable so that the pupils can stand comfortably behind it to work the puppets, and it will serve other purposes (as a shop counter and so on). The class might assist in the making of such a theatre and also in the creating of simple puppets. Glove puppets with heads made from match boxes or old balls are not hard to make or work. More complicated puppets, made with layers of muslin and paper, require time and patience, and are therefore not so suitable for retarded children. Marionettes are not recommended, as being too complicated and therefore discouraging, but rod puppets present real possibilities.

The making of puppets and their theatre, then, offers opportunities for the development of skills. Puppetry itself offers scope for oral composition. It is easier for the shy and diffident to speak through the intermediary of a puppet while hidden behind the stage than it is for them to talk direct to the class or teacher. The puppets can hold conversations on a given subject; very short plays can be written for them by the class jointly. If working the puppets and speaking at the same time is too great a task, the versatile tape recorder can be brought in to supply the voices, while the children concentrate on operating the puppets as the dialogue is unfolded on tape.

There is something remarkably disarming and appealing about puppets—even hardened adults will listen to controversial issues through the medium of the puppet show that they would not tolerate direct form a person in authority, and it is felt that puppetry offers real opportunities in General Side classes, if properly treated.

Of special value are *charts with moving parts* that the pupils can manipulate (the clock with moving hands, the 4-stroke cycle), though, as with all representations of 3-dimensional objects in 2-dimensional form, misconceptions may arise and require explanation.

The *flip chart* is another useful device, since a sense of development can be conveyed.

Graphs—bar, pie or sector and pictorial—are familiar to us nowadays. The *pictorial graph* is the most likely to meet with a response in General Side classes. It is easy here to convey the idea of large as against small

numbers of people, animals or things by means of a simple symbol. The use of Isotype can be helpful.

A chart can, however, be a difficult and abstract concept. A verbal flow chart may on occasions be a quick and lucid way of representing a process; often better for young children is a chart combining the verbal arrow flow chart with pictures of the process involved at each stage (The Making of Margarine chart). For General Side classes the pictorial version, is infinitely preferred. *Over-simplification* is a real stumbling block to be watched for. It is not hard to realize why certain charts on malaria might puzzle those whose intelligence is limited, since everything seems to be happening at once and there is no sense of a progress or cycle.

Maps also present problems. The slower child may find it easier to understand their message through first modelling maps, or the actual production of a local street guide "in the field".

Often more intelligible to slower children are the *flannelgraph, plastigraph* or *magnetic board.* These three are really variants of the same idea, and much depends on personal choice and budget as to which is preferable. Here symbols can be added and removed as a story unfolds, and the class can participate. A highly successful flannelgraph in West Africa has been worked out to explain the menace, causes, cure and prevention of bilharzia.

Symbols can wear the uniform of the learner's school, and the class can be further "involved" if they are given names that clearly refer to members of the class and any talents they may have—Handyman Harding, Musical Mary.

Plastigraph does all that flannelgraph can do, has the advantage of bold colour and the fact that layers can be peeled off to reveal detail below. In the example shown, a stylized mealie plant (green) can wilt (peel off layer to reveal yellow plant with black-spotted surface); the cause (peel off another layer) is revealed as the maize borer. A transparent sheet of plastic pinned over a basic design enables one to add details with the children as the lesson progresses. This sense of sharing a situation is important.

The magnetic board can be constructed so that both sides are useable.

To get one's teaching points across, one should always be prepared to *assess the aid from the learner's angle.* Doing this prevents various misconceptions from arising. The need to do so is illustrated by the true story of the European missionary who, disgusted by the sinful ways of his African congregation, preached a sermon of such fire and fury as to scare them into goodness. To drive his message further home, he organised *a poster* of souls in torment, to be placed where his chastened congregation would see it on leaving church. Great was his dismay, however, when he heard a burst of laughter. To the padre, souls were ghostly *white* beings, and as such he had represented them: to the African

congregation these "souls" appeared as *white men.* It was quite clear to them why the preacher was so upset, since hell was the fate awaiting him, but there was no need for them to worry!

Another point that gives rise to misconceptions is the matter of *scale.* If a large square is drawn on the board and its sides labelled 2" when they are really 2 feet, confusion may easily occur, especially if the pupils are required to draw a square exactly 2" or cut one out of a sheet of gummed paper.

Scaled-down models of large objects, such as a cow, are generally fairly easy comprehended. This is because in the scaled-down version all the obvious essentials are included—most people asosciate horns, four legs and an udder with a cow. Enlarged models however, often present real obstacles to understanding since small objects are imperfectly realized. In an enlargement, details become apparent which have never been seen before, and which therefore seem "unreal".

The real thing is often our best aid: actual coins and empty packets of cheese and cigarettes, etc., enable the class to "shop" and so understand the addition and subtraction of money in a realistic way. Sometimes, however, the real thing is not practical. It is too big to bring into the classroom, impossible to move, too dangerous and so on. Then we may resort to *a cut-away model or chart.* This may require careful explanation. From the cut-away examples of an oil tanker, a tractor and an Elizabethan theatre, a false impression might well arise—e.g., a tanker has a large hole in its side.

Consistency in the use of colour, capital letters and underlining (particularly where blackboard work is concerned) is important if we are to get our teaching points across. Colour should be used not only consistently but suggestively—green for vegetation, red or yellow for flames and heat, etc.

The above is a brief account of some aids and methods of applying them. Their range and possibilities are much wider, and discovering new ways of promoting understanding though their medium can provide stimulation and challenge to the teacher.

Nan Haggard.

CHAPTER SEVEN

JOB-PLACEMENT OF THE LESS-SUCCESSFUL SECONDARY SCHOOL CHILD

The subject under discussion, namely the less-successful secondary school child, implies that Education Officers have decided o nsome academic barrier below which they place this child, and I feel that we may agree to differ on this point when I explain how the Youth Employment Service defines its barrier.

Legislation for apprenticeship lays down a minimum standard equivalent to Form II education or commonly known as a pass in English and Arithmetic at Standard VII level. This I think is where we may agree to differ when discussing education, as some of you may scorn the idea of education being based at such a level. It must be borne in mind that employers have agreed that a child with this examination pass is acceptable to them to receive practical and theoretical training to craftsman level, and it must be assumed they are confident such a child can absorb this further tuition, which continues for four or five years. The acceptance of this level of education is our barrier *below* which we place the less-successful secondary school child.

A warning on the fixing of a barrier I think is worthwhile of mention at this stage. The economy of the country is closely related to supply and demand of labour and the Youth Employment Service is ever mindful that employers can raise this barrier. Presently employers offering apprenticeships have more workseekers than vacancies, so in effect when applications are being considered they may have the choice of Form III pupils, and employers will accept them in place of the minimum Form II candidate. The barrier is automatically raised.

In Southern Rhodesia we have approximately 1,100 of our youth in various stages of apprenticeships. The 1961 school-leaver campaign revealed that out of 1,253 vacancies offered only 60, approximately 5 per cent., were available to below standard VII level pupils. The vacancies offered were in sales, storekeeping, cinema and hotel staff, mainly jobs with poor prospects. From the above it is assumed that the less-successful secondary school child will become the less-salaried section of the community. We find that placing the under standard VII is very difficult and usually entails special canvassing by Youth Employment Officers with sympathetic employers.

The standard VII pupil has reasonable prospects of employment, but our registers mainly consist of the school-leaver who has not attained this standard. So, in fact, we have on our hands the educational problem-child, namely the less-successful secondary school-child. Industry in this country today can only absorb 5 per cent. of the less-successful secondary school children, based of course, only on our campaign returns, but what is the actual percentage leaving school with this form of education? One must bear in mind that Apprenticeships lay down *no* racial barriers and competition from African school-leavers is increasing; this is another serious challenge to the under standard VII.

From the Annual Report on Education for the year 1961, I read that in 1960 4,860 non-African children left school and 1,065 did not take any examination. Let us call it 20 per cent. of the total left school with no form of examination; with jobs available to only 5 per cent. of this group the picture is extremely distressing, although statistics do not always present a true analysis of the problem.

Educationally the answer would be to ensure that they all pass, with at least a standard VII examination, but this is not possible, as every child cannot attain this standard.

We cannot base our opinions on how we think employers should approach the problem as the position to-day is such that employers can and will accept the youth with the highest standard of education to the detriment of the less fortunate, but to the advantage, academically, of the employer. At least part of this problem is attributed to parents who do not insist that their children must proceed to a higher level of education and thus increase their children's prospects of employment. Employers have been indoctrinated that only Cambridge is acceptable and now, with Apprenticeship regulations in force, standard VII examinations. We must carry out a campaign to interpret G.C.E. and C.O.P. values to them. The picture will become more depressing each year, if industry receives no boost, and the problem will be most acutely felt by parents of the less-successful secondary school child.

I see no easy solution to the problem and again must emphasise that the Youth Employment Service in co-operation with Careers Masters are fully aware of the immensity of the problem and liaise to such an extent that special efforts are made on behalf of this child.

I would conclude now and say that while job placement for the less-successful secondary school child is extremely difficult, we attach great importance to their success in finding employment, knowing full well how much this means to the pupil and his parents; man works for money, which is important not as a means to buy the necessities of life, but because it is, in our present society, a measure of success to family and colleagues. Money buys the things which make possible a certain social status and the truth is that our wants always outstrip our desires.

M. MacInnes.

DISCUSSION

At the Chairman's request, Mr. MacInnes outlined briefly the services afforded to the public by his Exchanges. A number of questions later from the floor attempted to secure more detailed information on certain points.

Mr. MacInnes emphasised strongly during the course of the discussion that his Department could do nothing to force employers to accept employees recommended by it. At all times the employer was entirely free

to choose which standard of attainment he would require for a particular post, and what kind of person he would employ in that post. As far as possible employers were kept informed about changes in the educational system such as the introduction of C.O.P. and G.C.E., but very often the employers remained wedded to ideas such as "he's got to have his Cambridge," or "four years of secondary education, nothing less" the latter being based on the English system in which pupils enter secondary school at 11 plus and leave at 15 plus, whereas in this country in the Federal system they enter at 12 plus. Thus the role of the Exchanges and the Youth Employment Service was largely an informative and advisory one.

Mr. MacInnes' figures were questioned; it was pointed out that probably between 5 to 10 per cent. of school-leavers in 1961 passed no examination at all. More disturbing was the figure of 46, which represented the number of non-Africans who could not be placed anywhere by the Service during 1962.

CHAPTER EIGHT

ASPECTS OF DELINQUENCY IN THE GENERAL SIDES OF HIGH SCHOOLS

Causes of Delinquency: a summary.

The definition of a delinquent for us must be a person who tries to resolve personal problems in a socially unsatisfactory manner.

Much delinquency is to be expected here because of a social system in which there is little home influence and parental control, one in which mothers often work and, today, fathers are often unemployed, becoming frustrated, a state which communicates itself to the child. A second factor is the wrong choice of secondary school course, attributable to two causes: first, children who go through Junior School without themselves or their parents realising their limitations; second, parents who press children to reach high academic standards because of the competitive social system. Thus too many children take academic courses. When these have drifted into the General Secondary Side frustration sets in and the pupil has already lost his enthusiasm. An outlet is found through aggressive behaviour, and through this, notoriety is achieved, which compensates for attention lost in other ways.

These children still require certificates of educational attainment and failure leaves a blank future. This is where our great problem lies: there is no unskilled non-African labour force. The parent becomes dissatisfied and the child feels inferior.

At this point the communication factor comes into force, that is, contact with delinquent standards and lack of contact with the non-delinquent. The 'gang' system follows, facilitated by the ability to recognise other delinquents through jargon and dress. However, in this country we have some advantages, e.g., school uniform is worn from the beginning. Also our comprehensive schools bring all groups into contact. It is then through establishing the communication of a sense of belonging to a school and of non-delinquent values that the 'gang' system and wrong values may be combatted.

Mrs. J. Tozer.

Results of Delinquency.

Mrs. Tozer has very ably suggested some of the many causes of delinquency in the General Side of High Schools. It now falls to my lot to attempt to describe as I see them, the *results* of delinquency in the General Sides of High Schools. I should prefer, however, to make it quite plain at this stage, that I do not wish to confine my remarks to our General Sides in which, in my experience, the incidence of delinquency is no more marked than it is in the other so-called "fast" and "slow" academic streams. In fact some of the more difficult problems of behaviour and conduct occur in these streams, where also the maintenance of classroom discipline is often of the gravest concern — especially in the "slow" academic group.

Having, I trust, made this point clear, I must confess I find it a little difficult — in spite of my rather concentrated experience over a matter of a few years — to make any original observations on the results of delinquency.

If taken literally, the course of events consequent on proven delinquency is probably well known to all of you. But for those of you who have led a somewhat sheltered existence in your chosen occupation the following summary may be informative. Sooner or later the incipient delinquent, in pursuit of his desire to resolve his personal problems through overt aggressive acts, is apprehended committing a punishable or criminal offence. In about 75 per cent of delinquency cases, according to the Director of Social Welfare, this is a theft. By this the delinquent hopes to obtain the wherewithal, which he usually cannot get at home in sufficient quantity, to indulge further in some type of aggressive behaviour, so often witnessed in cinemas, juke-box cafes, and at rock and roll sessions. The latter I do not necessarily condemn as, if properly supervised, they do provide an essential opportunity for "letting off steam" in what can be a healthy and energetic exercise. If permitted to get out of hand, however, I can think of nothing more conducive to the encouragement of ostentatious, flamboyant and reprehensible conduct. To return, however, to the progress, or should I say retrogression of our delinquent. Having been caught in the act he is referred by the Police to the Probation Officer and later finds his way to the Juvenile Court. Here, depending on the gravity of the crime and his previous record, sometimes called for from his Headmaster, he may be cautioned and discharged; referred to the Probation Officer; have sentence postponed; be dealt with under the Children's Act; fined; ordered cuts; or be sent to a reformatory or even to prison. While on the subject of courts may I say that I subscribe to the opinion — at the risk of sounding jocular — that in many of these cases, especially those in the early stages of delinquency, there is too much "binding over" and not enough "bending over". I have no doubt, however, that Mr. Gaylard, will have something to say in this connection.

Having dealt with what I hope can be called the results of delinquency — if such a phrase is taken literally — I must now attempt to deal with the rather more tangible consequences as seen in our schools. If the delinquent is not removed from the school there is the immediate danger — and a very real one it is — of his corrupting his school fellows. If referred to the Probation Officer as a result of his appearance in Court, it is not only interesting, but surprising, to observe his reaction. This is normally one of bravado, and in many cases he feels a sense of pride, if you can call it that, in his notoriety. Persistent disobedience and insolence, even though punished, are often regarded with admiration and awe by other members of the class. In this connection, I quote again from the report of the Director of Social Welfare, who writes as follows: "Certain types of juvenile delinquents up to the time of the amendments (these were promulgated in Feb. 1961) had been able to ignore the instructions of probation officers and on occasions had defied them openly, but the courts are now empowered to apply sanctions to these juveniles".

Unfortunately it doesn't require much effort nor example on the part of the delinquent to stimulate and encourage similar behaviour in his weaker and more susceptible associates. Petty thefts in the school, and in

bicycle sheds particularly, immediately increase in number, and it is still unhappily true that the vast majority of schoolboys, suffering from a mistaken sense of loyalty or upholding their code of honour, will rather withhold information than attempt to assist in the protection and recovery of individual and public property. This is especially true of their attitude to government property in the schools such as stationery, textbooks, workshop materials and equipment. How can this state of affairs but lead to a most distrustful atmosphere in the classroom — especially in Art-Craft rooms and Workshops, from which materials with a ready re-sale value can so easily be filched? I distinctly remember the climate in a Metalwork Shop which resembled more that of a Police State than that of a contented scene of useful and interesting activity. Think also on the case of a boy of 12, referred to a Probation Officer, in spite of a previous period of probation and restraint in an approval hostel, who was guilty of 6 known punishable school offences, including truancy and forgery, within 2 weeks of his appearance in the Juvenile Court for the theft of £34 — in cash, from an adult supporter of the school.

This deterioration in conduct, both of the delinquent himself, and those he influences, is inevitably followed by a serious deterioration in their work. Depending on their nocturnal activities, complete indifference, sluggishness and apathy to instruction are encountered — in several cases this has been found to be due to the effects of dagga-smoking or to the consumption of alcohol, or both. In most instances however, it is attributable to the keeping of late hours — for what reasons one hardly dares to contemplate. One boy I knew used to return home regularly at six in the morning and "father" was not in the least concerned about it until he was threatened with prosecution. This lad I might say, was the eldest of three brothers all of whose school careers terminated in expulsion.

This deterioration in work can have only one inexorable result — the complete failure to gain any sort of qualification by the time school-leaving age is reached. Consequently there is no hope of employment and the delinquent, now consigned to roaming the streets and frequenting dens of dubious entertainment value, becomes an even more urgent social problem.

Further manifestations of the results of delinquency are the pictorial and written exercises which appear in increasingly competitive numbers on lavatory walls, and in obscene notes which are passed around the classroom. These outlets, or forms of expression, are in my experience again typical of most delinquents. The effect of these on the general school atmosphere can readily be gauged, and it is extremely difficult to counteract because of the near-impossibility of discovering the culprits.

I have perhaps painted a rather sordid picture of the results of delinquency as seen in our schools, but let me hasten to add that the incidence is not nearly as disturbing as you might have been led to imagine. In 1961 in Southern Rhodesia there were 226 known delinquents among a population of approximately 100,000 minors, which gives a ratio of about 2.2 per 1,000 persons. (Includes only "legal" delinquents) There is also a ray of hope if we consider yet another extract from the Social Welfare report, in conjunction with a rather succinct remark which appeared in the local press some weeks ago.

Social Welfare: "For too long negligent and indifferent parents have been allowed to escape their responsibilities and shift them to probation officers and school teachers."

Newspaper: "Child guidance is what more and more parents are getting from their children."

I suggest that if we persist in our endeavours to combat parental negligence and indifference, by educating our pupils on sound moral grounds it may literally in future be the case that the child be father to the man.

J. H. M. Brown.

Cures for Delinquency — a summary.

The major cure is prevention, which depends on perceiving the causes. Here the home background must be considered, making the answer difficult for the educationist to find alone. Thus a close liaison is necessary between the Social Welfare Department and the schools.

In the school itself firm discipline is essential, being necessary to give the child a sense of security within clearly defined limits of permissible behaviour. In every school the pressure of public opinion, especially that exerted by respected seniors, can have a good effect. On the matter of games in the school, they should not be compulsory, since most of those few who do not play voluntarily occupy themselves usefully in other ways. For the rest, compulsion is no cure and in any case delinquency occurs mainly when there are no organised games.

Three factors enter into wrong parental choice as a cause of delinquency: first — leaving school too early. We should encourage parents to keep children at school and subject to its restraints, remembering two things — that maximum delinquency among Europeans occurs in the 16-17 years age group, and that the potential delinquent often has difficulty in achieving the minimum educational qualification. Secondly — there are those who leave long after they have reached their maximum educational achievement. Thirdly — there is incorrect streaming. In all cases Head-Teachers can and must take a firm line.

Admittedly there will always be failures at the school level. Here the Head-Teacher has to decide between the individual and the good of the whole school. The best solution seems to be the removal of the child from the school. Where the home background is harmful then the child must also be removed from that, through the co-operation with the Social Welfare Department, to a reforming institution.

The overall picture is determined here by social insecurity, especially of employment. Even given this context, I feel able to express confidence in the present generation as a whole.

J. F. Gaylard.

DISCUSSION

One section of the audience felt that the school structure, as it presently stands, should be adequate and strong enough to *contain* social malcontents. As such, perhaps containment was the cure.

Another section, led by Mr. Hall, was of the opinion that more adequate guidance facilities should be established, and that a special school should be founded for the treatment of maladjusted children with emphasis placed on the *potential* deliquent. Early recognition of symptoms would make for easier cures.

Professor Milton concluded this discussion by posing the question — Does society in fact offer a satisfactory outlet for the physical and emotional pressures of our schoolchildren?

CHAPTER NINE

REPORTS OF DISCUSSION GROUPS

Group One: *Mr. W. W. Wilson.*

The group considered that 60 per cent. of the General Side of High Schools consisted of *educationally* retarded pupils who could be helped, by diagnosis of their difficulties at an early stage, preferably in junior school. The best chance of progress appeared to be through strengthening areas of weakness by direct remedial teaching. In this connection greater liaison between junior and high schools was necessary with regard to the specific difficulties of less-successful pupils. For instance, many pupils were in General Sides owing to low verbal ability; exercises and training were necessary, perhaps with afternoon classes in English for pupils whose mother-tongue was not English. Aim of junior school must be the elimination of reading retardation. Books suitable to interest age to be used. Pupils appeared to be very defective in their application of rules in written English and in free expression Research into the relationship between formal English teaching and free expression vital; perhaps Rowe's job-cards would help, spelling rules also worthy of more attention. In Arithmetic it appeared that most vital was continuity of teaching, therefore boarding facilities should be provided for children of people subject to frequent transfer. The cash-in-lieu-of-leave system helped too, but should be extended to married women. Varying methods of teaching arithmetic processes should be standardized.

Teachers in the General Side should be most efficient, up-to-date members of staff. They should be responsible for several subjects in the same class. A special/coaching class should be set up under trained teachers for each year-group in all the bigger High Schools. Some felt that children in General Sides should be freed from examinations of any kind, but others preferred to retain this incentive and objective.

Members of the group felt their own lack of training. A strong desire was expressed to attend further courses, ones in methods suitable for General Side teaching. Could the Ministry/U.C.R.N. reward this enthusiasm? Courses were suggested:

1. The administration and interpretation of diagnosis tests.
2. A study of the emotional factors in the lives of less-successful pupils.
3. Useful methods of teaching.
4. Methods and graded courses in remedial teaching.

Group Two: *Mr. T. Laurie.*

Teachers in General Sides were often not trained for the job, but it was pointed out that it needed qualities rather than qualifications. Staff should be encouraged to remain on and specialize in the General Side and its teaching.

It was considered strongly to be the task of the General Side teacher to attend to remedial teaching, and the group requested teachers' training courses in remedial methods. It was proposed that remedial teaching be included in the Bulawayo Teachers' Training course, and also that general secondary trainees at Teachers' College be given some opportunity to practice-teach in a junior school. In-service training such as that envisaged by the various courses already mentioned (see Group One) was invaluable, Some kind of Standing Committee for General Sides might be useful if established to look after textbook requirements, syllabuses, examinations, and so on, and General Side teachers should meet regularly for discussions within the General Side.

The class-teacher should take most subjects in his form in the first year at least. Twenty pupils should be the maximum for most General Side classes and certainly for the special classes. All teachers on the General Side must attend to language. Expression by the pupils must be encouraged by various means (numerous examples quoted by Mr. Laurie).

The group felt that the attitude of pupils in General Sides was poor, being apathetic to a marked degree, and individual work of some kind was essential in the General Side. Work-cards, job-card, banda sheets all offered fine means of motivation. The group would endorse any attempt to enlighten employers concerning the limited value of paper certificates as indicators of an employee's potential. Teachers in the schools, particularly those teaching General Sides, should gain a wider knowledge of the variety of jobs available.

General Side teachers did feel that frequently they had to go begging for equipment, books and staff to the Academic Side.

Group Three: *Mr. D. Eccles.*

Less-successful pupils should be afforded the security of being the same as the rest by having several teachers, said some; others said the teacher trained in this work had special advantages and should take a class for more than one subject. Correlation of subjects would be advisable, although this can be carried to ridiculous lengths. The Winnetka Technique was criticised as removing the teacher from his driving, stimulating position, from which he motivates the class to action and to learn. Rowe's Job-card System appeared to purpose to foster the spirit of investigation and self-help, and was approved. The group thought that more frequent opportunities for free self-chosen research should be provided in classrooms.

The group urged that complacency on reading disabilities should be avoided. It recommended that:

(a) secondary schools should undertake remedial work where necessary.

(b) this remedial work should not be confined to pronunciation, but extended to comprehension, etc., too.

Courses for practising teachers in remedial methods would be invaluable. Asian and Coloured children should receive special help with English at the primary level. Television outside school was discussed in

relation to the less-successful secondary school-child. Opinions differed on its influence.

There is a real need for us all to understand General Side pupils as worthwhile and capable individuals in their own right. Testing may be valuable in work with less-successful secondary pupils, but it is important not to neglect environmental influence which may alter results. A personal record system for the pupils (kept by staff) appeared to be an excellent aid to understanding problems of less-successful pupils.

Group Four: Miss L. Perold.

During wide discussion general suggestions were made: That education should be geared more to the environment of the child. That this education should tend to be practical rather than theoretical. That the teacher should be firm but sympathetic in the classroom. Greater freedom in the General Side classroom was more likely to help than to hinder the teacher's work. Pupils should endeavour to gain success at their own level, a level to be determined by the teacher. The importance of providing an incentive and sense of purpose for less-successful pupils was emphasised. An incentive might be supplied by withholding from pupils a chance to take a desired subject like typing until a sufficiently high standard had been reached in say English.

For the less-successful it was essential that they *aim* at Form 2 English/Arithmetic from the point of view of future employment. Child Guidance Centres should be established.

Less-successful pupils should remain in the main school, where they would benefit from the most normal atmosphere. A form-teacher or class-teacher, taking several subjects, was suggested for Form One and Two General, at least, with specialist teachers for some subjects like Woodwork. Correlation of subjects appeared to be desirable. Rowe's System might depend for its success upon the quality of the teacher. In schools where classes had to be "based" owing to shortage of classroom space, General Side classes should be counted out when making the arrangements, or at least not based on laboratories and such rooms, where they had no chance to gain a sense of security.

All secondary schools should have heads of General Sides. All co-educational secondary schools should have a woman in charge of girl's work in addition to a man as head of General Side. The problem of liaison between headmasters and heads of General Sides was noted.

General Sides need competent teachers; more adequate financial compensation might have to be offered. It was important that the right kind of person, if possible with training, should be chosen to work in General Sides. He might not require a high academic qualification. Training facilities should be provided for General Side teachers.

Group Five: Mr. S. F. W. Orbell.

This group felt strongly that it was true to say: "The child *can* do what he wants to do."

In the secondary school (which should remain comprehensive) a general education should be provided in Forms 1/2. Specially trained teachers should handle these forms. At the headmaster's discretion certain subjects would be abandoned at the end of Form 2, at which point there would be a Form 2 exam. in English and Arithmetic. Some pupils might have to repeat Form 2 to obtain a pass in the exam. Form 3 upwards would contain more obviously vocational training. Pupils would in any case derive considerable benefit from remaining at school longer. For those who completed Form 2 it might be advisable to set up a vocational training centre by taking over one smaller high school in each large town, a centre which would be both co-educational and non-racial. No pressure should be brought to bear on headmasters to stop them from guiding pupils to the vocational centre on educational grounds.

Pressure on organisations such as ARNI and ACCORN might help to enlighten employers concerning the merits of pupils other than those represented on a paper certificate. There should be further vocational guidance courses for teachers; vocational guidance and education should parallel one another. Pupils might be given a chance to work part-time in a job of their choice to gain a better idea of what is required in it.

Note must be taken of those pupils who fail to gain Form 2 passes, and of their predicament.

Group Six: *Mr. J. Campbell.*

General Side pupils see little purpose in what they are taught. Most school teaching at the secondary level is geared to academic examinations. This places the general side pupils at an immediate disadvantage within the school. Vocational guidance is suggested at the upper primary level to assist a pupil to make his choices in the secondary stage, and a wider range of vocational subjects should be offered at the secondary level. Guidance counsellors should be on the staff of every secondary school. The educational psychologist at Regional Office would be available for special cases. More educational psychologists were needed to bring the ratio up to the reasonable level of 1:5000. Employers would benefit too from such arrangements since they would have better personality, aptitude and interest assessments behind any selection.

Ways of developing pupils' personality were discussed. Clubs, sports, group-work, deportment classes, etc. Below Form 2 class-teachers taking several subjects were recommended.

Reading retardation did exist at the High School level, therefore remedial teaching was essential there. For this reason courses for teachers should be organized. Teachers' College at Bulawayo should also include training in remedial techniques in the course for all primary teachers and its general secondary trainees. The High School cannot be absolved from its responsibilities for the systematic teaching of reading.

There was urgent need now for a second Conference of the same nature as the present one, but on the subject of "The Gifted Child in the Secondary School."

CHAPTER TEN

THE PRACTICAL ADMINISTRATION OF THE GENERAL SIDE

In this last Chapter, we begin to take stock of what has happened. If nothing else, we have been forced to think again. Thinking on any matters such as those we are considering should never stagnate, and meetings of this kind stimulate us to puzzle out new attempts at solutions to our problems. I would be sorry, however, if we were to leave with no firm idea in our heads about what can be done next in the schools, where most of you work. For this reason, this Chapter will seek to anticipate the situation you will be meeting when you 'come down to earth', as it were. Already in Chapter Nine we have before us some excellent recommendations. Allow me now to detail a few other matters.

The work with less-successful secondary school-children is carried on in most of our schools, as you know, under the broad heading "General Side." As we noted in Chapter One, "General Side" cannot be accurately defined. It varies greatly from school to school, and from my personal observation I would say that the size of it depends on a number of factors, such as size of school, type of neighbourhood, policy of the Head of the school, and even the ability and drive of the person in charge. This somewhat arbitrary system is typically English and in many places works quite satisfactorily. I am not going to propose any rigid scheme of classification, so that, for example, streams E, F, and G in all schools shall become General, but I do suggest that we might consider more carefully the position of the Head of the General Side whom we shall call for the moment the H.G.S. I am well aware of the fact that a number of such persons have their own parishes well-evangelized, but all will I am certain be ready to discuss the problems involving in running such departments.

From my own experience I would say that there are two main headings under which the General Side work falls: (a) personnel management (b) administration. Naturally, the two overlap at many points.

(a) *PERSONNEL MANAGEMENT*

The whole of teaching involves inter-personal relationships, but the H.G.S. is a man who *must* be more deeply involved than others may be. Whatever his teaching-subjects, this man cannot afford the luxury of retreating into his chemistry laboratory to refill bottles of sulphuric acid, or into the library to classify books, or even into the geography room to trace maps, and thereby to find fulfilment in the ordered ranks of bottles or books or charts. which never play truant, nor have parents. This man must at all costs maintain a deep interest in persons as opposed to things. His daily routine will involve him in many, many contacts, most of which should be highly meaningful to him. If he does not find some difficulties arising through these contacts, then the chances are that he is drawing his responsibility allowance under false pretences. To support these strong statements, let me explain the realm of personnel management over which we might expect the H.G.S. to hold sway:

(i) *Relations with staff.* Like the General Side itself, the exact position of the *Head* of the General Side is ill-defined, and in my experience

this has led to considerable difficulty and even inefficiency in some schools. The chief questions at stake are: Who has the final word with regard to curricula and syllabuses? Who sets and moderates test and examination papers? Both questions refer, of course, to General Side clases. As you well know there are in our schools members of staff in charge of various subjects, many of them being recognised by the Ministry to the considerable extent of responsibility allowances being paid to them. These teachers are appointed for their knowledge of and skill in teaching their own subjects. Frequently they are persons of very good academic standing, probably with Honours Degrees, and with regard to their duties towards academic streams, they carry them out excellently. As far as General Side streams are concerned, however, many of them openly admit that they scarcely know what to advise. Few of them have been able to put forward suitable syllabuses for General Sides, because, as we have seen, their training has been very much otherwise oriented. At the same time, we know too that the person who is H.G.S. is probably qualified to teach only two or three subjects at most, and cannot possibly become an expert in the six to twelve subjects which may be strange to him yet are within his purview. This is how the problem of control arises. In the worst cases of conflict it may be necessary for the Headmaster himself to mediate or referee, which he is able to do more by his authority and professional status than by his own intimate knowledge of the problems involved. There is no easy answer to this question; many schools will continue to operate their General Sides on unskilfully watered-down versions of the academic syllabuses. Even College of Preceptors forms, which should be in the General Side, suffer from a lack of adaptation of the syllabus to their needs. Unnecessary detail is prescribed where a broad understanding would be of far more use both in the examination and in post-school days. This sort of thing is the responsibility of both Heads of subjects and H.G.S.'s, and it is in this connection, amongst others, that the latter is forced to exercise great discretion in his dealings with persons.

Further, the H.G.S. is almost certain to have within his department a large number of teachers, and some at least will resent the fact that General streams have been allocated to them. If we are frank, we must say the attitude of such persons is liable to be unco-operative. It is no use arguing that it is unprofessional to talk about such things — in every profession there are practitioners who do not measure up to the standard expected of them — the fact remains that these teachers exist, and pose an additional problem of personnel management for an H.G.S. who wishes to run his department in the best possible manner. At times discussions about textbooks, syllabuses, records of work, and such administrative matters, to say nothing of talks concerning individual pupils, may strain to the uttermost inter-personal relationships on the staff, particularly when the atmosphere is poisoned by wrong attitudes towards General Side teaching.

(ii) *Relations with Pupils.* We have already examined in detail the relationship in the classroom between pupil and teacher. It may be interesting to look now at the relationship which will exist between the pupil and the person who is H.G.S., not in the classroom so much as in the study. Although the duties of the H.G.S. vary widely from school to school, in most places he is regarded as being responsible for the welfare of the pupils in his care in more than the strictly educational sense This may include responsibilities for reward and punishment. for educational and vocational guidance. all of which imply personal

contact with the pupils. To my mind, it is vital that the H.G.S. should not fall victim of sentimentality towards his charges. particularly those who are the more pitiful. Indeed, I would go so far as to suggest that it is best for the relationship to be broadly an unemotional one. The need for the adult to exercise mature and unprejudiced wisdom and judgment is paramount. If it so happens that individual children in the General Side are unpresentable in manners or appearance, it is even more than usual the duty of the teacher in charge of the General Side to avoid letting these aspects of personality cloud the issue. This does not imply laxity but firmness, not indulgence but guidance, in a dispassionate manner. These, and other similar problems of personnel management of pupils, will demand high qualities of personality from the H.G.S. He must be master, but not driver. It has been suggested during the course of our discussions that extra "drumming-it-in" will achieve the desired aim, which in that discussion happened to be a Standard VII pass. Whilst it is perfectly true that in a minority of cases threats of punishment and frequent admonitions will educe from the pupil real progress, most people today will agree, particularly if they have had full experience of General Side work, that praise and encouragement are far more likely to attain this goal, hard as it may be for teachers to accord this praise. During the course of my time as H.G.S. I kept a careful record of the results of punishment, and I am very far from being convinced that this punishment achieved anything more than a minute percentage of what it was intended to do in the strictly academic sense. The boys beaten most often were those who made least progress, and those who made least progress were beaten most often — so the circle prevailed. Here too the H.G.S. is called upon to exercise great discretion, to deal with each pupil on a strictly individual basis. It is no good insisting that the "drumming-it-in" process will ultimately produce results, as it did in days of old — so they say. The answer to that one is that in days of old the less-successful children never really reached the secondary stage. We sometimes forget how very recently pupils in England were introduced to compulsory secondary education with a school-leaving age of fifteen. Not all educational problems have always been evident, although most of them are old.

(iii) *Relations with Parents.* In our discussions we have already mentioned on a number of occasions the parent of the less-successful secondary school-child. To summarize, we have noted

(a) that parents, on the one hand, want too much for their children and frequently insist on Peter or Pauline being placed in a course for which the child in our expert opinion is not suited.

(b) that parents, on the other hand, may want too little for their children and give them too little support and encouragement from the home, even to the extent of allowing their children to leave school "early" at fifteen without proper qualification. It has been pointed out too, mind you, that very few European children are actually leaving at fifteen these days, but instead are remaining in the sheltered environment of the school to mature in personality and possibly wisdom until the age of sixteen, seventeen or even eighteen.

(c) that parents find it hard to accept the advice of teachers or the school on matters of educational guidance, although Mrs. Galloway gave us an admirable model of interviewing technique with regard to vocational guidance.

(d) that parents may most certainly be involved in the problems in the education of their children by virtue of the type of response they make to their children's emotional, physical and educational needs. We quoted examples of parents being largely responsible, for instance through maternal deprivation, for serious blockages in children's emotional circulation — if we may call them that.

(e) that for all these four preceding reasons, parents' co-operation in alleviating the problems of educating their presently less-successful children *must* be enlisted particularly if Father's attitude is one of:

"You're not working the boy 'ard enough — I don't know why the Government ever pays you so much cash for not working properly for even 'alf the year";

or even worse,

"I was an instructor in the Army during the war. We got results, we did. None of this psychology stuff either."

Or perhaps Mother:

"You don't know what you're talking about, young man! Here I'm almost old enough to be your mother and you're trying to tell me how to bring up my children. Wait until you've teenagers of your own. I'll see the Headmaster, please . . . "

These are the moments when relationships with parents become difficult to handle, to say the least, and when the utmost tact and diligence is essential in handling each individual case. You might consider that such delicate affairs are beyond the purview of the H.G.S., and are certainly not worth undertaking at seventy-five or a hundred pounds per year. The former opinion I cannot subscribe to, because to use a full understanding of each pupil's background is basic to the work, although naturally such understanding does not arise all at once. The second opinion — the financial — I shall have a little to say about this later. Let me repeat at any rate that parents are a vital factor in the General Side situation, and we cannot afford to attempt General Side education without their aid, whether it be through teacher-parent interview, P.T.A.'s or any other system of liaison. Ultimately we need them at least as much as we need the pupils to teach or the teachers themselves. Parents complete an eternal triangle.

(4) *Relations with Students.* I would like to insert here a few quiet and I hope tactful words about the relationship between the H.G.S. and student-teachers from Bulawayo or U.C.R.N. who may come within his oversight. Whilst what I say is specially apposite for the H.G.S. it is for the ears of *any* teacher in the schools who has or had General streams. And under the heading student-teachers I would without much hesitation include the learner-teachers, to coin a term, those who have taught less than two years.

Student-teachers generally come to the schools part way through a course in theory and methods. They are obviously in most cases at a loss in the classroom for a while, and even when given academic streams they are very much preoccupied with preparation of actual lesson material and the day-to-day problems of maintaining control in the classroom. From time to time it has happened, as we all know, that student-teachers and learner-teachers have been given a majority of periods with General Side classes on their timetables. There may have been a very genuine motive behind this allocation: "Good experience — she'll learn a lot in 3F." On other occasions the same phrase is used: "She'll learn a lot in 3F", in a malicious sense, and with almost obvious delight (am I exaggerating?) at seeing somebody else being thrown to the wolves In fact, I am fairly convinced that if a survey were made, we would discover more of the younger teachers taking General streams than the older ones. May this not be the source of some of our attitudes towards General Side pupils? Picture if you will the learner-teacher, or the student-teacher placed with 3G for perhaps double periods at a time, unable to cope with both the difficulties of control (which very likely exist) and the difficulties of teaching and learning (which certainly exist). For us here at the College to encourage that student to take up General Side work is very hard thereafter. Do we wonder then that few teachers choose General Side work?

May I suggest to you then that young teachers would be more likely to render good service in the General Side if they were:

(a) introduced to it gently — perhaps one class only to begin with.

(b) encouraged and assisted, rather than dissuaded and commiserated with, by other staff, including more particularly the H.G.S., who should never be guilty of statements such as:

> "They're only 2G. You don't have to teach them anything really. Just keep them amused. They'll never pass any exam. of course. It's over to you, old man. Here's the syllabus for 2A-D; just water it down as you think best. Nobody'll bother much about what you do with them."

Both student-teachers and learner-teachers need far more specific help than this, of course, and the H G S. is the man best qualified and most responsible for giving it. Nor should he hesitate to give it, in my opinion, on the inadequate grounds that these are professional people who will resent his advice. First, they are people working under his authority; second, they are almost always people who will welcome his suggestions and help, or even criticism in the case of students. As a member of the staff of the College's Education Department may I make this plea with the rider that as a former H.G.S. I am not speaking entirely from an ivory tower.

(b) *ADMINISTRATION.*

Many of you will be well aware of the kinds of administrative duties which devolve upon the H.G.S. in most schools. For this reason I do not intend to go into detail under this heading. It may interest you, and may give you material for discussion if I make a few suggestions about these duties.

First, I wish to refer to record-keeping. There are some marvellous persons who are able to keep masses of detailed information neatly pigeonholed in their minds, even about people. They are fortunate. Those who live and work with them are not always so fortunate. Although written records do have certain disadvantages they do at least provide continuity, so that the mass of detailed information can be passed on to others, whether they be members of staff or successive incumbents of the post of H.G.S. I personally have suffered from lack of adequate written records, and I fear, have left behind inadequate written records myself. I am not suggesting to you that every H.G.S. should have a vast filing system with code numbers for every pupil, in which system he gets hopelessly lost himself from time to time, and which system occupies far too much of the hours between breakfast and bed just to keep it going. On the other hand, we need to develop in each school a set of cumulative records which will serve well the pupils and teachers of that school in their own local situation. Fleming has studied carefully the value of various types of records in the booklet "Cumulative Records" (Fleming 1954) which I recommend to you. We should mention too the record-cards of the Federal Ministry, which do sometimes offer us helpful information of a statistical kind, not forgetting too the medical cards which generally accompany them. I cannot resist the temptation to tell you briefly about the scheme being adopted by increasing numbers of schools in England, by which all pupils are photographed in their first and fourth or fifth year in secondary school. The work itself is conducted on a commercial basis by professional photographers, who make enough money out of orders from fond parents to be able to give the school free-of-charge a complete set of passport-size photos of the pupils. These are affixed to the record cards and form a fascinating gallery. The privilege of photographing the school is eagerly competed for in many districts.

Second, may I suggest to you that, if it is not already the practice in your school, decentralization should take place to the extent of all matters concerning less-successful secondary pupils becoming the initial responsibility of the H.G.S. This may sound like empire-building; in certain circumstances it could indeed become that, but under reasonably favourable conditions it should do nothing more than have the highly desirable effect of enabling the H.G.S. to attain a global view of his charges' problems. It is not satisfactory that General Side children should be sent sometimes to the Headmaster and sometimes to the H.G.S. for punishment for example. On every occasion they must come first to the H.G.S., who in cases of exceptional difficulty may well pass on pupils to the Headmaster. Similarly, parents should in the first instance see that H.G.S., who is likely to know far more about their child's problems than the more remote Headmaster. Again, specialist help from the Guidance Counsellor (if there is one) or the Headmaster himself, may be called upon when required. Staff who have found difficulties occurring with regard to certain individual pupils in the General Side should feel free to seek out the H.G.S. to discuss these children, when they may find out much valuable background information which is known to the H.G.S. and helps them to understand and alleviate the problems. Miss Perold's group's suggestion that in co-ed. schools a woman should be appointed to look after the girl's side of the work seems to me to be an excellent one which would make far easier this decentralisation I suggest. Lastly, may I point out that decentralisation is most urgent in the schools which have over 600 pupils, where the Headmaster cannot possibly have the personal touch he has in smaller schools,

and is most urgent too in some schools where the Head finds it difficult to delegate authority, therefore is forced by pressure of other work to neglect the demands of the less-successful secondary pupil, demands which we may say are at least as considerable as those of academic streams.

This brings me near to the end of this lecture, and to the grinding of an axe, but lest you should think it is my own, allow me to mention that my experience as H.G.S. was rewarding, responsible and (fairly) remunerative. The axe that needs sharpening is one which has been mentioned in the Group Reports — the status of General Side teachers. For those of you who may be unaware of the facts, may I point out that:

(1) H.G.S.'s receive responsibility allowances ranging from £50 - £150 per year. In a large school the G.S. may include 200-300 children, — involve up to 30 members of staff. The H.G.S. will possibly undertake all or at least most of the duties we have already mentioned and possibly many others. He frequently enters pupils for public examinations such as C.O.P. In his responsibilities if not in his status he *may* be second only to the Deputy Head of the school — and of course the Headmaster himself.

(2) It has been suggested that persons with M-level plus two to three years at training college will be suitable candidates for H.G.S., as well as actually teaching in G.S.'s. Would you really blame any *man* for choosing instead a primary school career which will lead him in a remarkably short time to be either senior assistant or headmaster of a primary school? Miss Behrman, of Teachers' Training College, Bulawayo, has pointed out to me that the general secondary course at the Training College is not well-supported. From this University College I can assure you that very few persons are likely to be attracted to G.S. work permanently, under the present conditions.

Lastly, at the risk of bringing a note of despondency into our thinking, may I point out that our position is scarcely stagnant. The chances of radical changes occurring in our educational system in the next five years are extremely high. It is perfectly true that our discussions have centred around problems arising in schools of the Federal Ministry — this is *only* because we are concerned with the situation as it is at present, that is, that a very small percentage of African children in the I.Q. range 70-95 are in secondary school now as far as we can tell. In years to come it is highly likely that there will be other discussions involving other racial groupings whose problems will be both similar and dissimilar to our own at this moment. This, I feel strongly, is something we should not forget when we return to the schools.

D. G. Hawkridge.

DISCUSSION

The Chairman, Mr. Mollatt, outlined the history of General Sides in Rhodesian High Schools, beginning with a report in 1936 which was

based on an English report of 1929. An unsuccessful experiment resulted from the report, namely the establishment of two secondary modern schools in Salisbury for girls and boys respectively. Since that experiment, work with the less-successful secondary school-child had reverted to the control of the ordinary High Schools, in which a method of trial and error had become the practice in the face of no clear lead from any other country in this matter.

Several questioners then asked if there could not be a clarification of the function and responsibilities of Heads of General Sides of High Schols, as a laissez-faire approach of the Ministry on this matter had led to difficulties such as those mentioned in Lecture 8. Other speakers thought that any such definition would be hard to frame and even harder to put into action, and that it would be better to leave this matter to the discretion of the individual Heads of High Schools, who knew the capabilities of the persons involved. It was pointed out, however, that Heads of High Schools were much involved with their examination candidates and in many cases could not pay sufficient attention to the needs of General Sides.

The Chairman indicated that the question of extra emoluments for workers in the General field was by no means simple.

Before closing the Conference the Chairman thanked the University College for its part in promoting such a gathering and expressed pleasure at the excellent response the meetings had received.

SOURCE MATERIALS

From "Educational Objectives for the Adolescent" (article by Dr. C. G. N. Hill, Lecturer in Education, University of Otago).

Last year, as each year, I enjoyed that odd collection of howlers and wisdom reported as the comments of heads of our post-primary schools at their breaking-up ceremonies. I have retained some to share with you—objectively—in the off season so to speak.

"The more I see of Education the more convinced I am that post-primary education is not meant for everyone."

"I feel that secondary education is for him (the slow learner), provided his limitations are recognised and his programme of work is suitably adapted."

"They (slow learners) should certainly not be allowed to go on to a post-primary school. Attempting to teach them is a shocking waste of time, effort and the country's money."

Another head advocated that some pupils' secondary education should end after the first year on the recommendation of the head.

One head made a plea to parents to allow their girls to stay longer: "Fifteen year old is too young."

To my mind we are faced with the problem of educating all the adolescents of the community as wisely and as well as possible. In what institutions this education should take place is a significant question.

From "Annual Report on Education for the year 1961" (Federal Finistry of Education), 1962.

(a) Extracts from the Ayerst Report on our secondary system.
Section J. Below Cambridge.

Half the boys and girls in high schools do not write Cambridge. Up till now most of them have taken the Ministry's General Certificate which comprised papers in English language and Arithmetic and in no other subjects. The first point that stands out is the very wide range of ability in the general streams which is not on the whole reflected in a simular range of methods and subject matter. The external examination for which they have been working is the same for boys of I.Q. 80. It is not surprising that roughly half the boys in the general streams secure a Form II Pass in the Ministry's Certificate and that half do not.

The second point that strikes one is the long time these boys and girls stay at school. A Form II pass should naturally crown the second year's work when a boy ought to be just 14. Compulsory school life ends at 15, but very few leave as early as that. The highest proportion of pupils leaving at 15 which I came across was 14 per cent. in one girl's school. By and large 16 is the real minimum leaving age. It is also the minimum age of entrance into apprenticeship, but being 16 is not itself a a sufficient qualification for being admitted. It is legally necessary to have Form II pass (more marks on the same examination) in Northern Rhodesia. It does not matter at what age the pass was obtained. One has only to talk to a class of boys who have just been sitting that examination to find out that among them will be boys of 17 making their third attempt. Even 18 is not unknown.

Apprenticeship is a wider term than in England, yet a stricter. More trades are covered. Some of them require a standard of education and intelligence greater than that represented by a Form II or Form III pass—the mining companies in the Copperbelt for instance are dissatisfied with the quality of boys coming forward as apprentices. They may acquire the manual skills required for the bare job they are being

trained for, but they lack the intelligence to go further — and the companies are looking for promotable recruits. Other apprenticeships are to trades which really hardly need, though the law requires, a Form II pass in arithmetic. The boys they accept may get it 'with a bit of luck' the first time they sit the exam. since they have done the work required. But, if the luck is against them, they will find they cannot be trusted not to lose their heads. If the examination is held on a day when they add in the date, they fail: if it is not, they pass. But, if employers really need sound arithmetical knowledge, they do not want boys whose reliability is unpredictable. If they don't need arithmetic they might—it seems to an observer—as well take the boys at 16 as at 17 or 18. They are not —many of them—really better when they pass than when they fail: they are luckier.

Nobody, however, can deny the importance of the examination to the boys, and therefore to his teachers. His future depends on his passing. If he can take it in his stride, well and good; but, as things stand, he would probably be in a 'Cambridge' and not a 'general' stream. If he is an Alfred Dolittle who needs 'a little bit of luck', then formal English and abstract arithmetic become the focus of his schooling; the only part of his education which matters to him, and the part at which he is probably least good. His education is not formally restricted. He has a full range of subjects and at some of them he may well be reasonably good; but his educational stake is limited to the 3 R's and with his stake his interest.

It is to remedy this that the Federal Ministry of Education has decided to replace in 1961 its own certificate examination by the School Examination of the College of Preceptors. It is hoped that a good many boys and girls who now struggle in the 'slow Cambridge' stream will write, and be content with, a College of Preceptors' full certificate taken in Form IV, though some no doubt (possibly as many as present) will want to go on to Cambridge in Form V. It is probable also that in the slower stream just below the 'slow Cambridge' one the College of Preceptors may prove a suitable examination. Still lower, there may be the possibility of pupils successfully writing individual subjects in this examination . . .

It seems to the overseas observer that there is bound to be a period of considerable chaos and experiment ahead as far as examinations for the third and fourth quartiles are concerned. Probably in Rhodesian circumstances some external examination for the third quartile is unavoidable; but one would hope that the fourth quartile could be excluded. If an examination there must be, it would seem to a stranger desirable that it should include an assessment of course work and possibly an oral examination on it. The whole field is by English standards small—not more than 2,000 candidates a year would cover both quartiles. Could this not, perhaps, be a matter in which the Area Training Organization might take an interest?

What does the education of these boys and girls of the general stream look like? For the first two years it is (like that given to the 'slow Cambridge") to some extent a matter of trial and error, where error could safely have been predicted. There is too large an element of taking up and putting down difficult new subjects. Too little of the work is within the pupil's intellectual compass. From the end of Form II it is necessary to consider boys and girls separately, for the story is very different.

Most girls of poor intelligence, as well as a good many average ones, seem to have set their hearts on being typists or office workers. If they are to succeed, they need reasonably accurate English speech and writing, and the ability to type swiftly, accurately and with some sense of fastidious lay-out. It is more doubtful whether most of them will ever use the bookkeeping they do. It sounds as if it would be vocational but is it? Is the shorthand in which they take lessons? (It would be shorter but less accurate to write 'learn'.) Anyhow the girls work well; their attitude is good and most of the things do seem to them to be relevant and therefore worth pegging away at.

In the same way the home-making side of the girls' education is efficient but too narrowly conceived. The skills are the skills—cooking or needlework—and very little more. They could be the way into thinking about behaviour and social and moral

values. Whether many of the present teachers could develop the human relations side of their work, I don't know. But it could, and should be done. If the girls on the General Side are to have any future in Rhodesia—and if they are to help and not to hinder the building of a nation—they will have to come to some better understanding of the African who will be their customers or fellow-workers as well as domestic employees. Both commerce and home-making could contribute to this understanding. I rather doubt if they do.

It is easy to see that with a real push, as the teacher-training programme gets under way, a good job can be done with girls' education through the integration of the general and vocational elements in the later years. It would involve in co-educational schools the creation of a second responsibility position for a woman joint head of the general side. It is worth remarking in this connection that I do not remember ever being introduced in a co-educational school (except perhaps casually in passing) to any woman with general reponsibility for the girls' welfare. There must be such people I know, but they do not seem to occupy as high a position in the school hierarchy as they do in England. And this, I think, is a pity.

The boys' picture is far less happy. There is no genuine vocational element on which to build for most of the general side. Most of the craft shops are run on traditional skill lines with only a choice between woodwork—leading on to joinery or cabinet making—and metal work, which theoretically should lead up to machine-shop work. Most of the boys with whom we are concerned will not earn their living in either of these ways. They know that they will not and that they could not. But they are going to be operators of various machines and one cannot help wondering whether in later stages of their course, work on internal combustion engines and electrical equipment might not have more value for them. One need not use the grandiloquent American phrase of 'automotive engineering' to secure the educational benefits for boys which the girls already find in their curriculum. This is not to argue against the craft shops as they exist (far from it), but to supplement them for older boys where they now fall short in that sense of reality which the girls enjoy.

Many of these boys will find their ultimate level (a pretty low one) in civil engineering jobs which will not necessarily be in the Federation. Meanwhile the country desperately needs a host of minor works projects of a social service nature, which perhaps could be tackled in part by these boys without arousing strong trade union opposition. In their later years, after 16, part-time 'release from school' to such projects would perhaps be justifiable and could be made—given the right staffing—educational not only in the small skills involved, but in the discipline of work, in the development of character and in arousing interest in the social value of the work done. Once again, it could be used to give some insight into their African fellow-citizens and their needs.

It is arguable whether the education of these boys after 16 should be school-based or college-based; or whether something like the Civilian Conservation Corps of the New Deal era would be more appropriate. I feel, however, that it is very important that they should continue to be brought up in a specially designed enviroment and that what they do during this period of a year or 18 months should be so arranged as to give them on a voluntary basis some opportunity of getting to know the Africans who form the great majority of their fellow-citizens. In race relations precept is not likely to be half as effective as companionship. It needs a young dog to learn new tricks, and the way ought to be opened now for young energetic European and African Rhodesians to get to know one another as it never was open (or could have been) for their elders. The replies to the Federal Ministry's circular about what is being done in schools to improve interracial understanding showed a fairly heavy concentration on 'learning about'. I doubt if boys (and girls) of average and below-average intelligence will learn much 'about', except by learning 'through being with', Africans.

Section K. A Balanced Education?

I could not help being impressed by the conviction with which I was told both by prefects and members of staff how marked was the change for the better in behaviour and character when a boy or girl in a general stream became a boarder, and conversely how rapid was their apparent deterioration if they reverted to day-boy status. One would like to know what criteria were being applied by those who made these judgments, and whether what may well be true of stupid boys in a big town is as true in the countryside. Unfortunately I only became aware of this as a problem in the later stages of my tour and I can do no more than suggest that there is a subject which would repay close attention.

(b) The College of Preceptors Certificate Examination

The year 1961 saw the introduction of the College of Preceptors Certificate Examination and the disappearance of the Ministry's General School Examination. The Ministry's object in making this examination available to schoole is to provide an examination on a full certificate basis for children in the second quartile, and on a subject basis for pupils in third quartile, at the end of a 4-year secondary course.

The response from the schools to the introduction of this examination was encouraging and the 1961 examination included over 2,000 entrants.

From "Teaching: A Psychological Analysis" Dr. C. M. Fleming (Institute of Education, London) 1956.

Little official attention was in the nineteenth century given to the reasons for educational defeat beyond branding teachers as 'inefficient' and pupils as 'lazy' and exhorting both to make better use of their time.

It is not now so often supposed that failure among pupils is wholly attributed to lack of energy on the part of their teachers. It has taken longer to discredit the belief that certain unsuccessful pupils are 'underfunctioning' or 'retarded'' — to use the modern counterparts of the earlier adjective 'lazy.'

Backwardness, dullness, and retardation.

A child with a mental age of ten was defined as one who was able to answer questions involving what is commonly called intelligence with the accuracy and speed of rather more than half of a representative sample of ten-year-olds. (The actual percentage varied slightly from one test to another and from individual tests to group tests). A child was said to have an 'intelligence quotient' of 100 when mental age as calculated coincided with chronological age — when the ratio of standardized test performance to age was as one to one. In similar fashion lower or higher relative status could be expressed as a quotient of chronological age in relation to subject age (in arithmetic, reading, and the like) or of subject age in relation to mental age. Using this convention, a 'backward' child was one who was distinctly below the educational level of the majority of his own age — whose subject age on standardized tests of attainment when divided by chronological age yielded a quotient of less than 0.85. A 'dull' child was one whose performance in tests of intelligence was well below that of most others of his age — whose mental age on standardized intelligence tests divided by choronological age was less than 0.85; while a 'retarded' child was one whose performance on comparable tests of educational attainment and intelligence gave a quotient below 0.85 for subject age divided by mental age. For convenience these quotients were multiplied by 100.

This formulation in terms of quotients was used both as a means of identifying varying types of irregular development and as a guide to educational prognosis. It was assumed that there was in the ideal state a complete coincidence of mental age and educational age. A retarded child who was 'not functioning to capacity' was therefore expected to improve to the level indicated by his mental age; but a dull child was thought of as one who could never rise to the level of those of his contemporaries whose intelligence quotients were higher than his own.

The interpretation was, in intention, an admission of the existence of individual differences; and it was at first a necessary protest against the earlier assumption of the equality of all minds and the consequent ascription of 'laziness' or deliberate defaulting to less successful learners. In practice, however, it led to the belief that the backwardness of dull children was irremediable — that they were of differing clay and required a teaching programme in all respects distinct from that of their more successful contemporaries. Teachers were therefore tempted to reduce their efforts to stimulate learning in pupils who had little initial success; and at the same time they were encouraged to put pressure upon those who appeared to be functioning less highly than was warranted by their so-called 'innate ability.' There was, therefore, a continuance of something very like the crude nineteenth-century belief that such pupils 'could do better if they tried,' were 'lacking in interest' or 'unwilling to concentrate.'

A challenge to the interpretation which had attributed constancy to intelligence quotients and had presupposed the lack of environmental components in intelligence test scores came, as has been indicated above, through long-term studies which established the intrinsic irregularity of mental growth. The same sort of conclusion followed from inquiries which showed a lack of parallelism in differing aspects of development. The Harvard Growth studies sponsored by Dearborn lent no support to the notion that growth spurts in physique or intellectual ability occurred inevitably at the same time, and the Californian studies analysed by Tyler indicated no coincidence of such forms of development as genital maturing and learning to read.

For all these reasons the appeal to a hypothetical examinable 'innate' ability has been gradually dropped along with the twin notions of the irretrievable backwardness of the dull child and the reprehensible retardation of those pupils who may do better in a test of general mental ability than in one of scholastic attainment. It has ceased to be the belief that a low ratio between standardized scores in an attainment test and an intelli- supposed that if pupils have been efficiently taught and have worked well, there will inevitably be a close correspondence between their relative status in educational tests and in tests of general mental ability. There is now much evidence in support of the finding that when achievement quotients are calculated from scores obtained in tests standardized on the same population quite large numbers of pupils have quotients both above 100 and below 100.

A low ratio between age and performance in an attainment test is not, in itself, a justification for criticism of the teacher as inefficient, nor is a low ratio between age and performance in an intelligence test (a low I.Q.) a reason for condemnation of the pupil as unteachable. Still less is there evidence to support the belief that a low ratio between standardized scores in an attainment test and an intelligence test is of itself an indication that a pupil is not 'trying as hard as he might.'

Awareness of this has come slowly down the decades; but through its realization the concept of 'retardation' or 'underfunctioning' has fallen into disuse and is now of academic rather than practical interest. A diagnosis of dullness or backwardness (a low relative status in comparison with one's contemporaries) is also for these reasons now used by discerning teachers as a challenge to hope rather than a pointer to despair. 'What some can do, he may do . . . He can at least give it a try! Wise teachers are in this sense cognisant of the disharmony and variability of growth and they decline to accept as final what so often proves a merely temporary set-back.

BIBLIOGRAPHY

Ayerst (1962) **The Ayerst Report,** quoted in "The Annual Report of the Ministry of Education of Rhodesia and Nyasaland for the year 1961." Salisbury, Government Printer.

Bayley, N. and Espenschade, H. (1944) "The Berkeley Growth Study." **Rev. Educ. Res.** XIV, 5.

Coy, G. L. (1950) **Ways Towards Self-discipline: a study in school living.** N.Y., Dalton Schools, Inc.

Dearborn, W. F., Rothney, J. W. et al. (1941) **Predicting the Child's Development.** Cambridge, Mass., Sci-Art Publishers.

Descoeudres, A. (1929) **The Education of Mentally Defective Children.** N.Y., Heath.

Dewey, E. (1924) **The Dalton Laboratory Plan.** London, Dent.

Duncan, J. (1943) **The Education of the Ordinary Child.** N.Y., Ronald Press.

Eysenck, H. J. (1953) **Uses and Abuses of Physology.** London, Penguin.

Fleming, C. M. (1934) **Individual Work in Primary Schools.** London, Harrap.

Fleming, C. M. (1954) **Cumulative Records,** London, University of London Press.

Fleming, C. M. (1958) **Teaching: a psychological analysis.** London, Methuen.

Frankson, A. S. (1950) **Individual Instruction in the Primary School, with special reference to the teaching of English and Arithmetic.** Associateship Report, London University.

Hawkridge, D. G. (1960) An unpublished survey of the less-successful pupils of Churchill Boys' High School, Salisbury.

Highfield, M. (1949) **The Young School Failure.** London, Oliver & Boyd.

Hildreth, G. (1950) "Individual Differences" **in Encyclopaedia of Educational Research.** W. S. Monroe, ed. N. Y. Macmillan.

Ingram, C. P. (1935) **The Education of the Slow-Learning Child.** Yonkers, World Book Co.

Inskeep, A. D. (1926) **Teaching Dull and Retarded Children.** N.Y., Macmillan.

Jackson, L. (1954) **Aggression and its interpretation.** London, Methuen.

Jones, D. M. (1948) "An experiment in adaptation to individual differences." **J. Educ. Psychol.** 39. 257-72.

Jones, H E. (1943) **Development in Adolescence.** N.Y. Appelton.

Leeds, C. H. and Cook, W. W. (1947) "The construction and differential value of a scale for determining teacher-pupil attitudes." **J. Exp. Ed.** 16, 149-59.

Macfarlane, J. W., Allen, L. and Honzik, M. L. (1954) **A Developmental Study of the Behaviour Problems of Normal Children between 21 months and 14 years.** Berkeley, Univ. of California Press.

McLean, D. (1952) **The Education of the Personality.** Melbourne, Heinemann.

MacMunn, N. (1926) **The Child's Path to Freedom.** London, Curwen.

Parkhust, H. (1922) **Education on the Dalton Plan.** London, Bell.

Rogers, C. A. (1956) **Measuring Intelligence in New Zealand.** Auckland, Auckland University College Monograph Series No. 2.

Rogers, C. A. (1958) "Backwardness in Reading." An unpublished address delivered to the Teachers' Association at the University College of Rhodesia and Nyasaland on October 1st, 1958.

Rowe, A. W. (1959) **The Education of the Average Child.** London, Harrap.

Schonell, F. J. (1942) **Backwardness in the Basic Subjects.** London, Oliver & Boyd.

Vernon, P. E. (1959) **Secondary School Selection.** London, Metheun.

Vernon, P. E. (1960) **Intelligence and Attainment Tests.** London, Univ. of London Press.

Vernon, P. E. (1961) **Selection for Secondary Education in Jamaica.** Kingston, Jamaica, Government Printer.

Washburne, C., Vogel, M. and Gray, W. S. (1926) **Results of Practical Experiments In Fitting Schools to Individuals.** Bloomington, Public School.

Washburn, C. (1932) **Adjusting the School to the Child.** N.Y., World Book Co.

Wickman, E. K. (1932) **Children's Behaviour and teachers' attitudes.** N.Y., The Commonwealth Fund.

CONFERENCE PERSONNEL

ANDERSON, Mr. E.	Marandellas High School, Marandellas.
APP, Mrs. P.	Roosevelt Girls' High School, Salisbury.
ARMSTRONG, Mr. G.	Prince Edward Boys' High School, Salisbury.
BACON, Mrs.	Girls' High School, Salisbury.
BALDOCK, Mrs. M.	Townsend Girls' High School, Bulawayo.
BEHRMANN, Miss J. E.	Lecturer, Teachers' Training College, Bulawayo.
BOWMAN, Miss M. A.	Roosevelt Girls' High School, Salisbury.
BRIGGS, Mrs. C.	Hatfield High School, Salisbury.
BROWN, Mr. A.	Mount Pleasant Boys' High School, Salisbury.
BROWN, Mr. J. H. M.	H-M., Cranborne High School, Salisbury.
BULMAN, Miss S.	Lord Malvern High School, Salisbury.
BURNS, Mr. B.	Jameson High School, Gatooma.
BURTON, Mr. D.	Llewellin High School, Ndola.
BUTCHER, Mr. R. A. G.	Robert Armitage High School, Limbe.
CAMPBELL, Mr. J. D.	Inspector, Salisbury Area.
CHAMPION, Mr. S. A.	Chingola High School, Chingola.
CHAMPION, Mrs. P.	Helen Waller Primary School, Chingola.
CHARD, Mr.	Fletcher High School, Gwelo.
CLIFFORD, Mr. P. J.	Sinoia High School, Sinoia.
COCK, Mr. W.	Prince Edward Boys' High School, Salisbury.
COOPER, Mr. R. P.	Milton Boys' High School, Bulawayo.
CORLET, Mrs. A.	Special Class Teacher, Admiral Tait Primary School.
COUPER, Mrs. A.	Roosevelt Girls' High School, Salisbury.
COVENTRY, Mr. H. O.	Northlea High School, Bulawayo.
CRUTTENDEN, Mr. A.	Representative for Oxford Univ. Press in Salisbury.
CUMINGS, Sir Charles	Personal Assistant to the Principal, U.C.R.N.
CUNNINGHAM, Miss	Roosevelt Girls' High School, Salisbury.
DEARLING, Mr. G. M.	Inspector, Salisbury Area.
DOBSON, Mr. F. J. B.	Lord Malvern High School, Salisbury.
EAKINS, Mr. E. R.	Jameson High School, Gatooma.
ECCLES, Mr. D.	Inspector, Salisbury Area
ELLERIE, Mrs. E.	Roosevelt Girls' High School, Salisbury.
ELS, Mrs. L.	Special Class Teacher, Lord Malvern High School, Salisbury.
EPSTEIN, Mrs. M. J.	Correspondence Course Centre, Salisbury.
ERLWANGER, Mr. S. H.	Founders High School, Bulawayo.
EVANS, Mrs. E. C.	Roosevelt Girls' High School, Salisbury.
FARQUHAR, Mr. J.	Institute of Education, U.C.R.N.
FINCH, Mrs. E. H.	Correspondence Course Centre, Salisbury.
FORREST, Miss D.	Umtali Girls' High School, Umtali.
FRASER, Mrs. M.	Roosevelt Girls' High School, Salisbury.
FRIZELL, Mrs. C.	Roosevelt Girls' High School, Salisbury.
GALLOWAY, Mrs. J.	Careers Counsellor, Churchill Boys' High School, Salisbury.
GARBUTT, Mr. P.	Mount Pleasant Boys' High School, Salisbury.
GAYLARD, Mr. J. F.	H-M., Prince Edward Boys' High School, Salisbury.
GLASSBROOK, Mr. D. S.	Milton Senior School, Bulawayo.
GOODENOUGH, Mrs. T.	Northlea High School, Bulawayo.
GORDON, Mr. C. A.	Morgan High School, Salisbury.
GRANELLI, Miss G. A.	H-M., Queen Elizabeth Girls' High School, Salisbury.
GREENSHIELDS, Miss A.	H-M., Hatfield Girls' High School, Salisbury.
GUBBAY, Mrs. D.	Lecturer, Teachers' Training College, Bulawayo.
HAGGARD, Mrs. N.	Visual Aids Division, Education Dept., U.C.R.N.
HALL, Mr. H. H.	Educational Psychologist, Salisbury Region.
HAMILTON, Mr. C.	Kitwe Boys' High School, Kitwe.
HAWKRIDGE, Mr. D. G.	Lecturer in Education, U.C.R.N.
HENDRICKS, Mr. J. R.	Morgan High School, Salisbury.

HENY, Mr. F. W.	Northlea High School, Bulawayo.
HOLL, Miss P.	Roosevelt Girls' High School, Salisbury.
HOLT, Mr. A.	Luanshya High School, Luanshya.
HUGHES, Mr. T. H.	Oriel Boys' High School, Salisbury.
HUTTON, Mrs. F.	Morgan High School, Salisbury.
JARDINE, Mr. N. B.	Ft. Victoria High School, Fort Victoria.
KELLY, Mrs. N.	Roosevelt Girls' High School, Salisbury.
KLETTE, Mr. R.	Senior Inspector, Salisbury. Region.
LAURIE, Mr. T.	H-M., David Livingstone Junior School, Salisbury.
LEADER, Mr. P.	
LECLER, Mr. C.	Mt. Pleasant Boys' High School, Salisbury.
LEECH, Mr. G.	Milton High School, Bulawayo.
LICHTENSTEIN, Mrs. L.	Chisipite Girls' School, Salisbury.
LYNCH, Mrs.	Lord Malvern High School, Salisbury.
LUCKIN, Mr.	Gilbert Rennie High School, Lusaka.
MACINNES, Mr. M.	Controller of Exchanges, S.R. Depot. of Labour.
McLACHLAN, Mrs.	Hatfield Girls' High School, Salisbury.
Sister MADELINE	St. Peter's Convent, Bulawayo.
Sister MANSUETA	Dominican Convent, Salisbury.
Sister MARY FIDELUS	Dominican Convent, Salisbury.
Sister MARY LEONIE	Dominican Convent, Salisbury.
MEYER, Mr. L.	Prince Edward Boys' High School, Salisbury.
MICHIE, Mr. W. D.	Churchill Boys' High School, Salisbury.
MILLAR, Mr. D. L.	Chingola High School, Chingola.
MILNE, Mrs. E. F.	Cranborne Boys' High School, Salisbury.
MILTON, Prof. A.	Head of Institute of Education, U.C.R.N.
MITCHELL, Mrs. D. M.	Girls' High School, Salisbury.
MOLLATT, Mr. W. A.	Chief Inspector of Schools.
Sister MONICA	Embakwe School.
MONTGOMERY, Mr. A. D.	Hillcrest High School, Livingstone.
MORTON, Mr. G. A.	Northlea High School, Bulawayo.
MURRAY Mrs. K.	Morgan High School, Salisbury.
O'BRIEN, Mr. R. P.	P.C.E. Student, U.C.R.N.
O'HARA, Mr. R. G.	Churchill Boys' High School, Salisbury.
ORBELL, Mr. S. F. W.	Headmaster, Selborne/Routledge Junior School, Salisbury.
OWEN, Mr. E. C. C.	Northlea High School, Bulawayo.
PALVIE, Miss A. S.	David Livingstone Junior School, Salisbury.
PATTERSON, Miss A.	Northlea High School, Bulawayo.
PEROLD, Miss.	H-M., Jean Rennie High School, Lusaka.
PHILLIPS, Mrs. M.	Morgan High School, Salisbury.
RENAUD, Miss D.	Cranborne High School, Salisbury.
ROGERS, Dr. C. A.	Acting Head of Department of Education, U.C.R.N.
SCHONLAND, Mrs.	Cranborne High School, Salisbury.
SETZCORN, Mr.	N.R. Labour Dept., Representative.
SHARPE, Mr. A. R.	Founders High School, Bulawayo.
SIEBERT, Mr. P. L.	Cranborne High School, Salisbury.
SINCLAIR, Mrs. E.	Roosevelt Girls' High Shcool, Salisbury.
SINCLAIR, Mr. M.	Churchill Boys' High School, Salisbury.
SOLOMONS, Mr. G. C.	Founders High School, Bulawayo.
SORRELL, Mr. F. B.	Jameson High School, Gatooma.
SOUTHALL, Mr.	Lord Malvern High School, Salisbury.
TATE, Mr.	Ellis Robins Boys' High School, Salisbury
TAYLOR, Mr.	Ellis Robins Boys' High School, Salisbury.
TOZER, Mrs. J. A.	H-M., Girls' High School, Salisbury.
TRAILL, Mr. J. A. H.	Fletcher High School, Gwelo.

TREGIDGO, Mr. M. W.	Northlea High School, Bulawayo.
TRYSSENAAR, Mrs. P.	Highfield African School, Salisbury.
TYSON, Miss E.	Eveline Girls' High School, Bulawayo.
VELLA, Mr. M. A.	Northlea High School, Bulawayo.
VULFSON, Mrs.	P.C.E. Student, U.C.R.N.
WAUDBY, Miss J.	Townsend Girls' High School, Bulawayo.
WALMSLEY, Mr. H. T.	Inspector, Salisbury Region.
WALKER, Mr. G. K.	Lord Malvern High School, Salisbury.
WEBSTER, Mr. G. K.	Jameson High School, Gatooma.
WELSH, Mr. A. H.	Cranborne High School, Salisbury.
WHITELAW, Miss V.	Inspector, Salisbury Region.
WILLIAMS, Mr. A.	Cranborne High School, Salisbury.
WILSON, Mr. W. W.	H-M., Highlands Junior School, Salisbury.
WOOD, Mr. R. H.	Lochinvar School, Salisbury.
WULFSON, Mrs.	Salisbury.

INDEX

PUBLICATIONS FROM THE UNIVERSITY COLLEGE OF RHODESIA AND NYASALAND

Faculty of Education

Occasional Papers:

1. The education of the less successful secondary schoolchild (papers and proceedings of a Conference held in August 1962), edited by D. G. Hawkridge, 1963. 7s. 6d.
2. The teaching of Latin in Africa (papers supplementing the proceedings of a Conference held at the College, August 1962), edited by C. R. Whittaker and M. E. Toubkin. 1963. 7s. 6d.
3. Community development, with special reference to rural areas (papers read at a Conference organised by the Institute of Adult Education, August 1962), with an introduction by Edwin Townsend-Coles. **In the press.**

Department of African Studies

Occasional Papers:

1. Garbett, G. Kingsley. Growth and change in a Shona ward. 1960. 7s. 6d.
2. Bell, Mrs. E. M. Polygons: a survey of the African personnel of a Rhodesian factory. 1961. 7s. 6d.
3. Bell, Mrs. E. M. Polygons: part two. Publication later in 1963. **In the press.**

MISCELLANEOUS PUBLICATIONS

Catalogue of the Courtauld Coin Collection: Roman and related foreign coins, with descriptions of each coin, plates, and an introduction on the monetary history of Rome by Prof. T. F. Carney. **In the press.**

Periodicals in the libraries of the Federation: a record of the detailed holdings of the most important learned, special and public libraries in the three territories, compiled by James Hutton, B.A., LL.B., Dipl. Lib. Loose-leaf format, with lettered portfolio binding. Basic volume publ. in 1962. Price: £2.2.0 post free, including free service comprising first 100 supplementary sheets.

For a full list of the publications of the College, write to the Librarian (Publications), University College of Rhodesia and Nyasaland, Private Bag 167H, Salisbury, S. Rhodesia.