

REFLECTIONS ON THE STRATEGY OF CHANGING A SCHOOL SYSTEM

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There is no group I would sooner meet than this, and no place I would sooner meet them than in Apia. It is here that, in 1945, I began my career as an international education busybody, and it is a great pleasure to be back in this friendly country, to see the great progress that has been made since then, and to hear from you of developments in other parts of the South Pacific. I count myself lucky to have this opportunity.

In order to dispel any idea that I come to you as an 'expert', let me tell you my background, so that you know my weaknesses as well as any strengths I might have. Roughly my professional career has fallen into three lots of 20 years each. The first twenty were spent training for primary teaching and then teaching in a university; I spent very little time teaching in schools, but concentrated rather on theory and research; this is a weakness. My second twenty were really tough, as an administrator running a national school system, and sometimes in international work and acting as a consultant in poor countries — a consultant being a person who goes overseas advising other people how to solve problems he has never solved at home. And my third 20, apart from the 4 years I was a rather bogus diplomat, has been concerned with developing countries all over the world. All of you have had more day-to-day experience in primary or secondary classrooms than I have, though I have taught in many universities, and have been fortunate enough to work in a score of school systems at all levels of development, even though briefly in some of them. Over the years I have become more and more of a 'generalist'. You all know the old definition of an expert or specialist, the man who knows more and more about less and less until he knows everything about nothing. I'm the opposite, a generalist. I've come to know less and less about more and more until I am in danger of knowing nothing about everything. I haven't worked in the Pacific Islands for 22 years and it would be nonsense of me to set myself up as an authority. For that matter, none of us here can claim to be an authority on the whole range of problems in education. But, as a group, we do represent, between us, a vast mass of experience. As a group we could be regarded as a considerable authority on education, though none of us is, standing alone. All I can do is offer my own small contribution to a group experience which I hold in great respect.

This is an edited transcript of an informal talk given by Dr Beeby at the "Seminar on Regional Cooperation in Teacher Education" held in Apia, 6-11 September 1981.

You have before you a paper setting out the headings of the talk I thought I might give, which will, I hope, give form to what might otherwise sound a rather rambling discourse. When John Weeks asked me if I would speak, I didn't know exactly who you were. I knew nothing of your backgrounds.

So I threw into these notes, everything I might speak about, leaving it till I met you to decide what to choose. I'll be happy, of course, to answer questions on any of the subjects under the headings. Some of the things I am going to say may sound pretty obvious to men and women of your experience, but I am not going to give any advice that I have not seen broken in some country, sometimes shockingly broken at a cost of millions of dollars. I shall begin by clarifying the meaning, and significance, of some key terms that will come up in the talk, and also, I imagine, throughout your meeting. I am interested, not in semantics as such, but in the practical implication for you as teacher trainers of the distinctions I make.

MEANING OF TERMS

Meaning of 'curriculum'

Those of you who have read Hilda Taba's book on the curriculum will probably agree with her that 'curriculum', in its widest sense, covers: (a) the aims in teaching the subject, (b) its content, (c) the methods used to teach it, and (d) an evaluation of the results. That doesn't leave out much that goes on in the classroom, does it? I don't think you can. All are interlocked, and teaching can fail if one is overlooked. When I was younger, what was called 'curriculum' usually consisted of nothing more than the syllabus, just the aims of the subject, in general terms and printed in large type, followed by the content, printed in small type. The school syllabus is probably the only official document where the small type is more avidly read than the large.

I once worked in a large and scattered country where the Minister of Education had great faith in the changes that could be brought about by simply changing the syllabus, or 'curriculum' as he conceived it. He changed it at such brief intervals that teachers in some distant schools had barely had time to see the first syllabus before the second was promulgated. I have no faith, no faith whatever, in the power of a new syllabus to effect major changes in teaching practice unless it is accompanied by a lengthy in-service training programme and constantly evaluated in the schools until it is well established. The moment you alter one of the four elements, mentioned by Hilda Taba, then changes have to be made in the rest. Without outside help, teachers have a remarkable capacity to go on doing the same things under another name, and the poorer their own education and professional training the more likely they are to be passively resistant to change.

And the greater the change the longer and more thorough must the retraining be. I shall come back to this later.

Pre-service and In-service Training

If you are trying to bring about major changes in a school system, I don't think you can separate in-service training from pre-service training. If you try to make the change by saying, 'We'll change the people in the training colleges, and their students will go out and reform the system', you'll be disappointed. Change in education just doesn't happen that way, because the conservative forces in most school systems are too firmly rooted to be changed by young beginners going in at the bottom. If you send isolated graduates, full of bright new ideas, out into thoroughly conventional schools where senior teachers have had no introduction to those ideas, their efforts will run away into the sand. Only the most courageous will be able to hold their own against the opposition or the inertia of their elders.

In even a highly centralized system, it is astonishing what gulfs can occur between pre-service and in-service training. While I was working in Indonesia, vast and admirable efforts were being made to introduce a new curriculum into the primary schools, and a country-wide in-service training scheme was built up to get the syllabus and the new textbooks into the schools. But in a country as huge as that, with changing personnel in the Ministry, and with poor communication with outlying areas, breaks in co-ordination easily occur. Somehow the directorate that controlled teacher training was left out of the picture until too late, so that the teaching in the training colleges was not changed to conform to the new curriculum. For instance, new mathematics was to replace the old arithmetic syllabus, but some training colleges were still training their students only in the teaching of arithmetic. The teaching colleges should have been right in the centre of the whole move to plan the new curriculum, but many of them were of very poor quality and very isolated, and they were bypassed in the haste of getting the changes into operation as soon as possible. It was a classical case of 'more haste less speed'.

The main reason why pre-service and in-service training should not be separated is, however, more important than just avoiding such break-downs in co-ordination; it is that, when you separate the two, you are in danger of separating theory and practice, which, I think you will agree, is one of the greatest weaknesses in teacher training in most countries. Educational theory is never easy to apply in practice, and if training colleges concentrate on theory, and inspectors and other advisers concentrate on teaching practice in the schools, both theory and practice will be the poorer for it, and classroom teachers will become confused, and cynical about the value of theory. I feel that your training colleges should be at the very core of any major changes in the curriculum, and that, in close co-

operation with the inspectors or supervisors, they should follow that training right through to the teachers' own classroom.

If the training colleges are to take a major part in in-service training, then they may have to be thought of as very different kinds of institution — unless, of course, they are expected only to run occasional refresher courses, consisting of lectures and discussions. But if they are to follow these courses up into the schools, into the teachers' own classrooms, and to continue that over a period until the new skills are thoroughly established, their job becomes much wider. It will need a different combination of skills. The subject specialists — who may not have had much experience in primary classrooms — will have to know how to *teach*, and must be conversant with conditions in the schools, particularly the rural schools, which are usually in the greatest need of practical help. There will need to be increases in staff so that members can spend time in the schools, and they will have to have means of transport to make that possible. The training colleges must co-operate closely with the inspectors, supervisors, and subject advisers, who will share, as equals, in the job of in-service training; a clash of opinion between these groups can be highly disruptive. And representatives of the training colleges should have taken part, at the appropriate time, in the planning of the changes in the curriculum. I do not know what part your training colleges now take in in-service training, but, in most systems that I know, training college teachers do not have enough chance to follow up in the schools the work they may do in refresher courses. New habits, skills and attitudes take a long time to establish in our profession.

Two Types of In-Service Training

In-service training is of two kinds: bringing poorer teachers up to the average in existing practices (upgrading), and training all teachers for major changes in the curriculum. You know far more about the first than I do; so I shall deal here only with the second. In-service training of this second type frequently involves more than simply new skills; it can call also for changes in objectives and in attitudes of mind, and this is far more difficult to bring about than mere upgrading, as you well know. If, for example, it is only a matter of introducing a new method of doing long division, or even of teaching the use of a pocket calculator, teachers already understand and accept the objective; all they have to learn is the means of reaching it, and this can be taught in a short lecture, followed by a little practice. But if you are changing from the teaching of arithmetic to the new mathematics, or from history and geography to social studies, you are demanding of the teachers not only new methods, but new objectives, new ways of thinking and of getting children to think. And this I have found, in every country I have ever worked in, demands a whole new dimension of training. It is not to be done in a week's course of lectures, demonstrations, and mini-lessons. The best of the

teachers may pick up what you have said and work out the rest for themselves and from the new textbooks, but the average or below-average teacher will find himself, within a week of returning to his classroom, faced with problems that he, and perhaps you, had never thought of. He needs personal help, either from his principal (who may know no more of the new moves than he does) or from an outside adviser, and he needs it, if possible, in his own classroom. Or the teachers within an area may meet together periodically, with an inspector or training college lecturer, to discuss the unexpected problems that have arisen in the classroom, although they seemed so simple in the lecture room. The failure to realize how long this in-service follow-up must continue with the weaker teachers explains why many attempts to introduce bright new ideas and practices don't get through to classrooms far removed from the places where the ideas were worked out with care and enthusiasm. Failure of this sort can, in the end, be more expensive than the admittedly high cost of providing extra trainers at the critical time.

Two Types of Qualitative Change

Teacher trainers, inspectors, and classroom teachers are accustomed to think of change in the quality of education as change in the achievement of pupils in the manner or content of teaching or learning that brings that improvement about. That is qualitative change of one type: change in classroom practice, that alters the manner or content of teaching or of learning. This is the kind of change you are normally concerned with, isn't it? My own little book, *The Quality of Education in Developing Countries* (1966), did not go beyond these bounds.

Qualitative change of another type, change in the 'flow' of students through the education system, is usually considered to be the business of politicians and administrators, who determine the conditions of entrance and the examination barriers throughout the system. But the longer I work in developing countries the more I realize that these two kinds of change are interlocked. (This seems to be my day for 'interlocking'.) Teachers may have little to do with the numbers who are admitted to primary school, but they have a great deal to do with: the kind who get into the limited vacancies in secondary schools; the kind who are blocked by examinations at one point or another; the numbers who repeat classes, and the numbers who drop out with courses unfinished, both of which are related, in some degree, to classroom practice. And teachers, especially school principals, have a great deal to do with the most important decision of all in a child's school life — the decision whether he shall take what I called a 'terminal', or a 'preparatory' course. This is a decision that is usually made (by the student himself or by other people for him) at the secondary stage, but how he has been taught and encouraged at primary school may do much to determine the line he follows at secondary school — if he ever gets there. A 'preparatory' course is one that is planned to lead on to further formal education; the ordinary school certificate,

university entrance and pass degree courses are obviously preparatory. So are courses leading to senior technical education where this is available. Courses whose primary purpose is to prepare students for immediate entry into the world of work, in rural pursuits, workshops, offices, shops, are 'terminal'.

Ideally, there should be no completely terminal forms of education, but poor countries often lack the part-time and correspondence courses and informal training facilities which, in richer countries, make it possible for those who take terminal courses to continue with some education after they leave school. In a poor country, a student who chooses a terminal course — if he has a choice at all in the matter — cannot usually change his mind later. So the choice, whether it be his, the school's, or the result of economic necessity, is a vital and final one, and it often has to be made as soon as he leaves primary school. In developing countries the rewards in money and social status for completing the full academic education are usually far beyond what you will get if you take a terminal course that lands you in some blind alley engaged in lowly manual work. Provided, of course, that you manage to get a job worthy of your higher qualifications. And there's the catch! So it is not surprising that parents and students so often opt for preparatory courses. It is what I have called a 'lottery syndrome'. It may be common knowledge that the labour market is flooded with unemployed young men and women with academic qualifications, but the value of the prizes to be won by the few is so high that parents and students take the risk in the hope that they will be the lucky ones. I do not know how many of your countries have reached the stage where this is a serious problem, but it is acute in countries like India, where a clash between the kind of education the government wants to provide for its own purposes, and the kind parents and students want for theirs, distorts educational planning. In many countries I have known, students who cannot win a place in an academic high school, will go to a technical school, but only with the idea of scratching up some kind of education that will fit them, however inadequately, for a white-collar job.

You may ask what all this has to do with you as teacher trainers. A great deal, I believe. Even at the primary stage, the attitudes that teachers have towards the purpose of their teaching, and the subjects on which they concentrate in the classroom, do much to affect the later choice of courses by their pupils. It's common knowledge that, in most developing countries, where entrance to secondary schooling is fiercely competitive, the senior classes of the primary school devote a very high proportion of their time to the subjects in the secondary school entrance examination, even though that means neglecting subjects and skill that are more closely related to their future life in the countryside. This may be forced on them by public demand, but the attitudes and skills it develops in teachers at all levels makes it doubly hard for the authorities to establish a curriculum to fit the majority of pupils for the kind of life most of them are likely to lead. The

teachers' own professional stock-in-trade becomes limited to formal academic subjects; so, to introduce a new curriculum that is less narrowly preparatory, you must overcome deep, and often unconscious, vested interests in many teachers. This is more obvious at the secondary level than at the primary, which makes sweeping changes in secondary schools much more difficult.

I am not suggesting that you give training college students, with a rather humble education themselves, abstruse lectures on the issues I have just raised, but you can do something to make them at least aware that different people have different views on the purposes of education. After all, you do lecture them on 'The Aims of Education', and, with most classes, you can raise a lively debate by asking the question, 'Whose aims?' The government's? The employers'? The parents'? The students'? Or the aims of some learned professor of education overseas who wrote a chapter on the subject? Our conventional treatment of the aims of education with students is far too bland and unchallenged — or it was in my days as a teacher of teachers.

FACTORS AFFECTING TRAINING FOR MAJOR CHANGES IN THE CURRICULUM

Conservatism of teachers

An education system is, by its very nature, conservative. Its original purpose, after all, was to 'hand on the torch', to pass down to the next generation, in a slowly changing world, the skills, knowledge and attitudes of their elders. It is only in recent years that education has come to be thought of as an agent of change to prepare the young for a rapidly changing world. We haven't quite adapted to this new function, or fully agreed on it, for that matter. I don't think you will find the majority of teachers in your systems straining at the least to make changes in their practice, or pestering you for a new and wider curriculum. In my experience, the majority of teachers would like to see improvements in the facilities offered them and minor alterations in the syllabus; I have rarely felt, in any system, a clamouring demand for the formulation of sweeping new objectives for the schools. I think that, in a good system, the desire for change is potentially there, that you can stimulate and strengthen it. Your best teachers will respond to the challenge and some may be away out ahead of the authorities, but I do not think that, for the average and below-average teacher, major reforms will be brought about by merely giving them freedom with the curriculum and a wider choice of teaching methods. For most teachers, freedom by itself is not enough to generate improved practices and skills. They need stimulation and professional assistance.

Quite apart from outside public pressures on the schools, there are peculiar professional factors that tend to make the average teacher conservative. For one

thing, the objectives of education, beyond skill in the 3Rs, are usually expressed in vague, general, and sometimes woolly, terms, so that teachers have no clear idea of what is demanded of them beyond the teaching of routine knowledge and skills. So unsureness lies at the root of some conservatism in education. Assurance in practice springs from a clear view of the goal.

Then teachers are the product of the very system in which they work and which they are expected to alter. We are the only profession that lives so completely on its own products. Moreover, the individuals in the profession carry on their work in isolation for most of the time. A lawyer in court argues with another lawyer, and sharpens his skills in the process. A surgeon operates under constant scrutiny. But a teacher, when the door closes on him and his 40 pupils, works alone, except for the occasional visit of an overworked principal or an inspector. So, if he has misunderstood something he learnt at training college or at an in-service course, he can go on, uncorrected, for years. Anything that can break down that isolation is valuable. Psychological research has shown that people's opinions and attitudes are changed much more rapidly when they are in groups than when they are in isolation. I was responsible, while I was on the Harvard faculty, for introducing team teaching into four or five experimental schools in Barbados. Team teaching was very much in vogue at the time, and I always thought that some of the theorizing behind it was a touch unreal. But one thing I was completely sure of, as the experiment continued, was that the improvement in the successful schools — and there were marked improvements — came from the fact that the teachers were watching one another at work. Lessons had to be properly planned and well prepared, homework had to be well set and promptly marked, sloppy teaching was exposed to colleagues. I think that the open classroom has the same advantage. I am sure this has implications for in-service training, and perhaps for pre-service training. You, of course, have the additional problem of isolated teachers away on distant islands. Reforms that work well in the practice school attached to a training college (with a proportion of the pupils the children of lecturers and teachers) frequently fail to work in the schools in the bush.

The last of the reasons for conservatism that I have set out on your paper is, I believe, the most important. No change in curriculum will ever be real until the individual teacher *understands it, believes in it and makes it his own, and feels secure with it*. If a young architect were given the job of designing the building we are now in, if he had been given strict instructions by his boss on the principles to be followed, and if he obeyed those instructions, it would make no difference whatever to the strength of the building that he thought the principles wrong. The roof wouldn't fall in because he disagreed with his employer. And the effect of a doctor's potion does not depend on the doctor's faith — unless he lets his scepticism get the better of his bedside manner. But in teaching, as in preaching, belief in what you are saying and doing is vital. There is no point in 'instructing' a

teacher to carry out a practice he doesn't understand, doesn't believe in, and doesn't feel safe with. The implications for teacher training, pre-service or in-service, are too obvious for me to mention to practitioners of your experience.

Teachers vary in their capacity to change

This you know as well as I do; you have mentioned it many times in the last few days. Your students come into your colleges with different qualifications, some with standard 6 or 7, and others with School Certificate. But apart from that range, even if they all came in with the same qualifications, their capacity to change their practice, their willingness to change, would vary widely. That, you will say, also applies to people in other occupations; so what of it? That's true, but in most other occupations, in office work for example, there is a natural hierarchy, and people tend to find the level of job and of responsibility for which their abilities best fit them. In a school, once the classroom door is shut, every teacher is as important to his pupils as every other teacher in the country, and only within very narrow limits can even the principal change that. The bright teacher is lively, imaginative, innovative; the dreary practitioner, wedded to routine, is dull and stodgy, but both are teachers, with equal powers and equal responsibility within their little kingdoms, and somehow the education system has to be adapted to meet their individual needs, strengths and limitations. The hardest job of an educational administrator is to devise an educational system (with its regulations, curricula, textbooks, examinations and systems of training and supervision) that gives the really bright, imaginative teachers the freedom to experiment within proper limits, and, at the same time, gives the slower ones the detailed support and controls their need if they are to give of their best. Some feel choked by a tight syllabus, instructions on how they shall teach, and rigid examinations to be aimed at; others feel lost and insecure without them. You yourselves will know teachers and students who are quite good routine teachers, skilled at teaching the 3 Rs, who fail entirely if you ask them to move outside that narrow structure and, say, teach their history and geography as social studies closely related to the community around them.

So how are you, as administrators or teacher trainers, to cater for this wide range of abilities among members of the profession who are all, in a very real sense, equal in responsibility? How are inspectors to treat all types of teachers with equal understanding and sympathy — and with firmness where necessary — the fast and the slow, the innovators and the natural followers? How are the same textbooks and the same curriculum to suit the different purposes to which they will be put? What kind of materials and equipment should be offered to the schools, those that give scope for creative activities or those that help the weak teacher to do a little better the things he has always done? Those of you who have ever had to make rules and regulations will know that those teachers who want to forge ahead and

do their own thing can be a bit of a nuisance, especially as some are likely to be the wrong things. But they are a highly desirable kind of nuisance in a naturally conservative system; to cramp them unnecessarily is like an inexperienced gardener pruning off the growing points of a favourite shrub. But to ignore the people down below, who need the support of examinations, a tight syllabus and regular inspection, is to cut the whole tree down. You might care, at some point, to discuss the problems this creates for the trainers or teachers. What I know best are the extraordinarily difficult problems the administrator faces, especially when manpower and money are too scant to have a highly diversified system.

Qualitative change rarely on a straight front

One result of all this is that educational reforms of a qualitative kind rarely move forward on a solid front. The front is ragged, with the adventurous teachers exploring ahead and the laggards trailing. The only way an administrator can prevent this is to hold back the fast ones, and that can be fatal, although badly devised regulations often do it. A clear map of this broken front is essential to those who control the in-service training programme of any big planned reform.

Not only is educational reform patchy, it is also very seldom continuous over a long period of years. This is especially true of developing countries, where ministers and administrators, and the policies they support, are liable to change more rapidly than in old, established school systems. In a new country, the initiative and drive for change often comes, in the first place, from the centre, from the Department of Education and the central training institutions, because there you will find men and women who have had experience and stimulation overseas. But this will not always be the case. Governments come and go, the officials with the passion for reform move on, grow old or die, and the flame flickers. It is essential that, from the very beginning of the reform, efforts be made to encourage, out towards the periphery, cells of teachers and local administrators who will themselves become centres of spontaneous growth. So, when the centre loses its drive — as it inevitably will — there will still be growing points in the outlying areas to keep the system alive and moving until the central authorities and institutions are once more ready to move forwards. It is the give-and-take between the centre and the periphery that prevents an educational system from sinking into self-satisfaction and apathy, and the outlying teacher training institutions, with their circles of keen teachers, are best suited to lead regional and local movements for reform. It is a function whose effects extend far beyond the normal boundaries of the colleges.

School systems vary in their stages of development

This is the central theme of my Book, *The Quality of Education in Developing Countries*, which some of you may have read. I have already talked too long to

have time to develop my ideas on this, but you have before you a chart (from p. 72 of the book, see Appendix 1) that contains the essence of my thesis of stages. Very briefly, my contention is that there are stages of development in the life-history of a primary school system, stages through which all systems, at least of most types, must pass, and which, though they might be shortened, cannot be skipped — with the exception of stage 1, which some new countries have missed. Two highly important factors (though they are not necessarily the only ones) limit the speed at which a school system passes through the stages; they are: (a) the level of general education of the teachers in the system, and (b) the level and nature of their teacher training. The characteristics of the teaching at each of these stages are shown in column 3 of the chart. There is only one point I have time to make here about these characteristics. I have used the term *formalism* to indicate the kind of teaching where symbols — letters, words and figures — are taught by rote with only a weak link with their meaning; you will have seen many cases of this. In the book, I distinguished between this and the *formality* of some teachers, who believe in approaching any subject through a strict study of its structure and form. If they are good formal teachers, they will finish by getting the intellectual significance of these formal studies across to their pupils, though they may not arouse the same emotional and creative interest as good teachers using a freer approach. But they can, and many do, operate at stage 4.

Although the thesis of stages has not been scientifically proved — or disproved — there is a great deal of practical experience in developing countries bearing it out, and most educators seem able to place their own system on the scale. I suggest you try it with your own system. If it is true that the kind of teaching you can expect from a group of teachers is limited by their own educational level and their amount of training, this has wide implications for both the educational planner and teacher trainer. A few specially gifted teachers may practice at a stage higher than one would expect of them, but the average and below-average teacher, with an inadequate general education, will not have the sense of security with his subject or his class to venture far from the words of the textbook or the narrow skills in which he feels safe. This is particularly noticeable in the higher primary classes, where the gap between what the ill-educated teacher knows and what his pupils know is not very wide. In the infant classes, the gap is greater and, with some help and encouragement, infant teachers will be more confident, and will adopt freer, active methods of teaching and learning more readily. It is the easiest place to introduce new techniques and attitudes; in developed countries, reforms in primary school practice have usually started in the infant room, and slowly spread upwards.

SOME PRACTICAL SUGGESTIONS AND QUESTIONS ARISING FROM ALL THIS

I have talked too long already to have any time left to say anything about the eleven suggestions and questions under this heading (see Appendix 2). But all of

them arise from what I have been talking about for the past hour, and they were intended only to suggest practical topics you might discuss at this conference, or think about when you get back to your own countries.

There are only two things I must still say. The first is no more than a shortened version of what I have already said. It is that, in any major reform of the curriculum, the four key forces that will do most to determine whether it succeeds or fails are: the teacher trainers, pre-service and in-service; the inspectors, supervisors, call them what you will; the textbooks; and the examinations. Teacher trainers should: play their proper part in the preparation of the new curriculum; operate at both the pre-service and the in-service stages, co-operate closely with the inspectorate throughout the whole period of establishing the new curriculum; have a hand in preparing, or at least be consulted about, the new textbooks; and have some representation on the body that evaluates the new scheme, and, if possible, on the body that sets the examinations.

The second thing I want to say is more personal. I have raised so many 'problems' in this conference that I may have made your job look even more complicated and difficult than you thought it was. It is true that old men, and particularly old administrators, tend to have an overdeveloped sense of the impossible, but I want to ensure you that, after sixty years in the profession, I am still an optimist about educational change. Indeed, I am inclined to think that, if you are to be an optimist in education, you must be either very young or very old. The young have still to know the frustration of cherished schemes that go astray and the slow pace of deep change in education. The old have had time to see the results of snail-speed progress that are hidden from those who are fighting to bring it about. I am, I like to think, still as impatient as any of you with unnecessary delays, and with those, in high places or low, who won't budge to meet changing conditions, but, in my lifetime, I have seen immense changes in education, particularly in developing countries, many of which started from practically nothing. I have seen them in the country where we now meet. When I first came to Western Samoa 36 years ago, the village schools stopped at standard 2. The best of them were just beginning to struggle out of the stage 2 in my chart, and the poorest of the pastors' schools were still at my stage 1. Reporting on the best government primary school in the Malifa compound, with one N.Z. teacher and 20 pupils, who entered with no more than a standard 4 education, the teacher said that she brought the pupils up to a 'poorish N.Z. standard 6 level'. The senior Samoan in the education service, the Chief Inspector, was a fine, wise man, and a good administrator and teacher, but his formal education had stopped with the primary Proficiency Examination. Compare all that with the schools you will see in this country now, and with both the content and the sophisticated professional character of the report from Western Samoa that you have before you, and even the most discouraged or sceptical amongst you must agree with me that progress in education in one professional

lifetime can be surprising, even dramatic when viewed like a speeded-up film in an old man's mind.

Finally, if I may say so without sounding patronizing — and I feel humble rather than that — one of the things that has impressed me most, and cheered me most, on this nostalgic visit to my past, has been the level of professional discussion around this table, discussion that would have been quite impossible in 1945. You, who work in developing countries, have a harder job to do than any of us who controlled education in developed countries, have ever had to face. We had more money, we had more specialized staff, we had more time because people were not expecting as much from education. But the people you serve, even in the more distant villages, have looked over the fence and have seen what they believe education has done for the young in richer countries. So you find yourselves in the midst of an explosion of expectations. And — I hope I don't underestimate you — you can't work miracles. It's an exacting job, but I shall leave this conference firmly assured that you have the background and the right philosophy — a happy blend of idealism and realism — to handle it. With all my heart, I wish you well in it.

APPENDIX 1.

STAGES IN THE GROWTH OF A PRIMARY SCHOOL SYSTEM

(1) Stage	(2) Teachers	(3) Characteristics	(4) Distribution of Teachers
I. Dame School	Ill-educated, untrained	Unorganized, relatively meaningless symbols; very narrow subject content — 3 R's; very low standards; memorizing all-important.	<p style="text-align: center;">t years</p>
II. Formalism	Ill-educated, trained	Highly organized; symbols with limited meaning; rigid syllabus; emphasis on 3 R's; rigid methods — "one best way"; one textbook; external examinations; inspection stressed; discipline tight and external; memorizing heavily stressed; emotional life largely ignored.	
III. Transition	Better-educated, trained	Roughly same goals as stage II, but more efficiently achieved; more emphasis on meaning, but it is still rather "thin" and formal; syllabus and textbooks less restrictive, but teachers hesitate to use greater freedom; final leaving examination often restricts experimentation; little in classroom to cater for emotional and creative life of child.	
IV. Meaning	Well-educated, well-trained	Meaning and understanding stressed; somewhat wider curriculum, variety of content and methods; individual differences catered for; activity methods, problems solving and creativity; internal tests; relaxed and positive discipline; emotional and aesthetic life, as well as intellectual; closer relations with community; better buildings and equipment essential.	

APPENDIX 2

Some practical suggestions and questions arising from all this

For discussion: some of them may not be relevant to conditions in the Islands.

1. Involve training colleges, inspectors and representatives of the teaching profession, from the very beginning, in all planning for changes in the curriculum and for training for them. Whenever appropriate, bring in also the private school authorities and teachers.
2. Get agreement on the objectives of the changes, and make them clear to the rank-and-file teachers.
3. In deciding the size and type of change in the new curriculum, consider the ability of the average and below-average teacher to make the leap from old practices and beliefs to the new. Is there a method of allowing the best and most innovative teachers to move faster than the rest? To what extent should they be permitted to experiment and vary the new curriculum? How are the slower teachers to be helped to keep up with the rest?
4. Give thought to the *speed* of change. Which of the steps you are contemplating must, by their very nature, be successive, and which must be simultaneous if they are to be effective? Examples to be discussed.
5. What provision can be made in curricula, textbooks, teaching aids, and examinations for the varied speeds at which different teachers and pupils can change attitudes and skills? Consider a 'two-stage strategy' for introducing innovations. (See C.E. Beeby, *Assessment of Indonesian Education*, pages 62-64, 298-301).
6. Consider the advantages and disadvantages of a system of 'rolling reform' of the curriculum, one subject at a time.
7. Do not place too much reliance on the effect of educational theory on the practice and attitudes of average and below-average teachers. As far as possible embody the theory in the textbooks and teaching aids. Make provision for teachers to see the new methods actually in practice, and, if possible, to take part in them with experienced teachers. Encourage local discussion groups on the purposes and problems of the new curriculum.
8. Many in-service training schemes for major changes in curriculum fail because there is insufficient follow-up of the initial training courses. There is a limit to what an initial crash course of a week or two can achieve with the average and below-average teachers. Continuing help and advice in the classroom and in small workshops and discussion groups may be necessary for

a very long time. What is the place of inspectors, training colleges and subject advisers in this process?

9. If there is a need to retrain some of the teacher trainers? How?
10. Even before it is possible to evaluate the *results* of the changes, it is important to have formative evaluation of the *process* of change in order to correct errors in this strategy as soon as possible. In the early stages of the operation, this is more likely to be done by organized feedback from trainers and teachers, and by one or two wise and experienced observers in the field, than it is by sympathetic testing, which properly comes a little later.
11. Finally, what help can be given regionally in these operations?