DOCUMENT RESUME

ED 093 069 EA 006 265

AUTHOR McKinnon, K. R.
TITLE Realistic Educational Planning. Fundamentals of Educational Planning -- 20.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France). International Inst. for Educational Planning.
SPONS AGENCY Swedish International Development Authority (SIDA).
REPORT NO ISBN-92-803-1061-5
PUB DATE 73
NOTE 47p.
AVAILABLE FROM UNIPUB, Inc., P. O. Box 443, New York, New York 10016 (Order number ISBN 92-803-1061-5, $2.65)

EDRS PRICE MF-$0.75 HC Not Available from EDRS. PLUS POSTAGE
DESCRIPTORS Case Studies; *Change Strategies; Cost Effectiveness; *Educational Needs; *Educational Planning; Educational Strategies; *Humanization; Human Resources; Mathematical Models; Organization; *Resource Allocations; Systems Approach
IDENTIFIERS New Guinea

ABSTRACT

Expertise in the technical aspects of planning and a keen appreciation of the social factors involved are not, in themselves, sufficient for satisfactory educational planning. The plan will still not be feasible unless there is attention to a third group of factors called "practical issues", "organizational features", or "processes". These are the features that must be planned and coordinated if there is to be any chance of getting to an ideal educational structure or the desired quantitative goals. Planners need to be concerned with the legal and regulatory features of the educational system, its organizational framework; and the relation of that framework to the more general pattern of government, the pattern of financing and administration, and the communication and supply networks integral to successful operation. (Author/WM)

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Realistic educational planning

K. R. McLaughlin

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K.R. McKinnon

Paris 1973
Unesco: International Institute for Educational Planning

The Swedish International Development Authority (SIDA)
has provided financial assistance for the publication of this booklet

Published in 1973 by the United Nations
Educational, Scientific and Cultural Organization,
7, Place de Fontenoy, 75700 Paris
Printed by Ceuterick, Louvain
Cover design by Bruno Pfäffli

ISBN 92-803-1061-5

Printed in Belgium

Fundamentals of educational planning

The booklets in this series are written primarily for two groups: those engaged in or preparing for educational planning and administration, especially in developing countries; and others, less specialized, such as senior government officials and civic leaders, who seek a more general understanding of educational planning and of how it can be of help to over-all national development. They are devised to be of use either for private study or in formal training programmes.

The modern conception of educational planning has attracted specialists from many disciplines. Each of them tends to see planning rather differently. The purpose of some of the booklets is to help these people explain their particular points of view to one another and to the younger men and women who are being trained to replace them some day. But behind this diversity there is a new and growing unity. Specialists and administrators in developing countries are coming to accept certain basic principles and practices that owe something to the separate disciplines but are yet a unique contribution to knowledge by a body of pioneers who have had to attack together educational problems more urgent and difficult than any the world has ever known. So other booklets in the series represent this common experience, and provide in short compass some of the best available ideas and experience concerning selected aspects of educational planning.

Since readers will vary so widely in their backgrounds, the authors have been given the difficult task of introducing their subjects from the beginning, explaining technical terms that may be commonplace to some but a mystery to others, and yet adhering to scholarly standards and never writing down to their readers, who, except in some particular speciality, are in no sense unsophisticated. This approach has the advantage that it makes the booklets intelligible to the general reader.

The series was originally edited by Dr. C.E. Beeby of the New Zealand Council for Educational Research in Wellington. It is currently under the general editorship of Professor Lionel Elvin, formerly Director of the Institute of Education of the University of London.

Although the series has been planned on a definite pattern, no attempt has been made to avoid differences, or even contradictions, in the views expressed by the authors. It would be premature, in the Institute's view, to lay down a neat and tidy official doctrine in this new and rapidly evolving field of knowledge and practice. Thus, while the views are the responsibility of the authors, and may not always be shared by Unesco or the Institute, they are believed to warrant attention in the international market-place of ideas. In short, this seems the appropriate moment to make visible a cross-section of the opinions of authorities whose combined experience covers many disciplines and a high proportion of the countries of the world.

Preface

When educational planning became a conscious activity with concepts and procedures of its own there was a tendency to think of the 'planner' as someone who drew up a plan, with as much quantitative analysis as possible, but did not concern himself with the broader settings (e.g. the political and social) in which the plan would be expected to work; and equally concerned himself very little with the process that was started once a beginning had been made with putting the plan into effect. One reply to this dangerously limited idea of the role of a 'planner' was to say that it is really administrators who plan, and the idea of a 'planner' who comes in from the outside and leaves again as soon as he has deposited his blueprint on the Minister's desk is not helpful at all. Dr. McKinnon, basing himself solidly on his own experience in Papua and New Guinea (where he has been Director of Education for a good many years), takes a middle position. He sees the function of the administrator, perforce having to deal 'ad hoc' with all sorts of details and emergencies, as different from that of the planner, whether the latter comes in from the outside or is simply a colleague in the office. But he insists that the planners must be sensitive to the contexts, both general and more narrowly educational, in which their plan will be tried. He argues that so many plans have gone wrong because these were overlooked. And he shows, from the example of the three-man planning committee that came to Papua and New Guinea to draw up an educational plan, that on these terms planning can be done with success.

Dr. McKinnon has given his monograph the title 'Realistic educational planning', and the first word in the title is the important one. But what are the things that planners of educational development

have to take into account if their plan is to be 'realistic', in the sense of fitting the context and allowing in advance for difficulties that may be in the way? In this essay Dr. McKinnon gives what seem to me very convincing and salutary answers.

LIONEL ELVIN
General editor of the series

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A conception of planning

Introduction

The proportion of successful plans (successful in the sense that the plans are adopted and implemented) compared with the total of planning attempts is undoubtedly low. Yet there is abundant evidence that the gap between educational needs and resources everywhere continues to grow in so menacing a fashion as to demand the utmost rationality and economy within education systems.[1] What is wrong? Does the fault lie with the plans or with those who should be using them?

No doubt some of the blame lies with those who should be using plans. Effective implementation of even the best plans will be prevented by men who are short-sighted, conservative or incompetent. There are others, too, who distrust the whole notion of planning and who stubbornly resist attempts to make them plan or work within a plan. Fortunately they are not more than a small fraction of the total number of administrators, the remainder of whom welcome all techniques which promise assistance with their manifold problems.

The frequency with which plans are rejected implies that often planners do not address themselves to the 'right' problems, that what they see as important and what decision-makers see as important differ markedly. It is true that there is often a difference, sometimes a considerable one: it is also unfortunately true that there has been insufficient exploration of the requirements which must be met to

1. Philip H. Coombs, *The world educational crisis: a systems analysis*, New York, Oxford University Press, 1968.

make planning realistic and useful. The objective of this paper is to show the way towards an improvement in the rate of acceptance and implementation of educational plans, demonstrating, through examples, that for good reasons administrators require a great deal before they can accept a plan.

Part of the reason for a low acceptance rate for planning may be a consequence of an otherwise desirable development within education systems – the new specialization of educational planning. In the days before there were educational planners, senior administrators were the only planners. Through the experience of trying to implement their own planning they learned hard lessons about the ability of apparently minor and familiar structural or procedural issues to impede, or even completely prevent, implementation of attractive educational plans. When they were the only planners, administrators gained experience of what was possible and were content to plan well within the system's readiness for change. Since it is more difficult for the new specialists to acquire the insight which came from such practical experience, there is greater likelihood of unacceptable planning.

Another part of the reason, which also partly explains the restricted scope of some educational planning, lies in the apparent strength of the relationship between educational planning and economic development. Economic development, the goal of so much effort by governments in the last quarter of a century, has seemed to be dependent on precise planning of trained manpower outputs. In turn, precision in manpower planning has seemed to depend on exact educational planning and has led to a new category of specialists – educational planners. The more precise and ambitious the plan, the greater the changes required and the more complex the problems of achieving the changes. Ambitious educational planning in itself heightens the risk of unworkable plans.

Because the impetus for much modern educational planning has developed in the course of economic planning, educational planners have perforce become familiar with economic techniques and statistical methods. The same expertise which has given them status and a mystique among educators has, however, resulted in narrowness and neglect of other important issues, perhaps because, lacking mathematical exactitude, those issues were regarded as trivial. A rise in the acceptance rate of plans will come only when there is adequate understanding of the complexity of such issues and attention is devoted in the plan to the necessary measures for solution.

Lack of practical experience and over-concern with techniques, when given as reasons for poor planning, are both evidence of the failure to identify important planning variables. Important variables can only be recognized when appropriate commonsense criteria of good planning are used. Plans may serve many purposes and have different features according to those purposes, but whatever other features are taken into account in assessing its worth, it is indispensable that the plan be feasible, that it can be carried out. Throughout this paper discussion will be directed towards defining the conditions under which an educational plan becomes realistically feasible.

Educational planning

Fundamentally, the task of an educational planner must always be that of planning the rational and economic use of the nation's educational resources.

Such basic data as enrolments by level and sex, rates of progress and repetition, unit and aggregate costs, manpower requirements forecasts, and building and equipment needs are always essential, as are data on social structure and social mores. Yet, important though these are, they are not by themselves enough. The complete plan must take into account another group of issues which are the facts of life for an administrator: the pattern of pressure groups, organizational structure, pay scales, union rules, or any combination of a host of other complicated features which might force reluctant rejection of a plan unless that plan indicates necessary changes in those features.

The limitations of planning which concentrates on technical factors are not difficult to see. The emphasis on quantitative goals and on increasingly complex mathematical models of planning leads to planning which distorts reality by ignoring many of the important variables. Mathematical models give static plans which define ultimate destinations and some intermediate way-stations, but give no indication as to whether the road is passable. Formal planning techniques are undoubtedly very useful, but only to the extent that they do not rest on the false assumption that citizens are ready to accept any discipline or undergo any reorganization if the resultant system is more 'efficient' in economic terms. Technically impeccable comprehensive plans which do not concern themselves with the characteristics of human systems are not very useful.

The social context of educational planning has had some attention.[1] Increasingly, planners try to take into account national aspirations and the structure of society in general. The politicians, who ultimately decide the fate of educational plans, are acutely conscious of the reactions of society and are especially good at assessing short-term social pressures and balances. Educational planners are conscious of the need to bring the insights of social psychology and sociology into the planning process, although it is not completely clear how profound concepts such as freedom and social justice can be realized through planning.

Nevertheless, expertise in the technical aspects of planning and a keen appreciation of the social factors will not in themselves be enough; they are necessary, but not sufficient. The plan will still not be feasible unless there is attention to the third group of factors already mentioned. Some would want to call these factors 'practical issues', others 'organizational features' and still others 'processes'. The name is not important as long as the distinction (for discussion purposes) between this third group and other aspects of planning is clear. These are the features which must be planned and co-ordinated if there is to be any chance of getting to an ideal educational structure or the desired quantitative goals.

Planners need to be concerned with the legal and regulatory features of the education system, its organizational framework and the relation of that framework to the more general pattern of government, the pattern of financing and administration, and the communication and supply networks integral to successful operation. Unless these factors and their inter-relationships are adequately specified as part of the over-all planning process, it is not likely that the resulting plan will be one that can be implemented.

It is easy to show the effect of these factors. No planner with an understanding of them would be confident that a planning recommendation to move the most talented teachers into positions of responsibility would have any chance of success, unless he simultaneously indicated how to overcome service seniority rules, or the morale problems of disgruntled teachers with dashed expectations. In a developing country he would be cautious about such an apparently obvious innovation as educational broadcasting by radio until he was sure that he

1. C. Arnold Anderson, *The social context of educational planning*, Paris, Unesco: International Institute for Educational Planning, 1967 (Fundamentals of educational planning, 5).

could devise a practical way of keeping radio-receivers in working order. He would always be concerned about the 'machine' that is the education system, for its characteristics and potential for change determine the goals that may be set.

Moreover, a complete plan includes both objectives and the whole range of management, logistics, personnel and other changes necessary to realise its over-all aims. The plan must specify not only primary effects but secondary consequences, and how these are to be handled, for it is not possible to assume that even secondary effects will be so small or self-cancelling that they will not limit over-all outcomes.

Planning of processes and structures should not be confused with the administration of processes in the implementation stage. In the course of administration there will still be problems, adjustments, reweighting of influences and partial failures which will demand the whole range of an administrator's skills. It is one thing to plan out what should happen but quite another to cope on a day-to-day basis with new contingencies which cannot be foreseen, no matter how comprehensive the planning.

It is difficult to convey a full appreciation of the wide variety of matters which need to be taken into consideration in realistic planning. In practice unexpected problems intrude continuously into the planning process. Good planners are always on the alert for such problems; they explore their dimensions and provide solutions as a matter of course. Unfortunately, successful examples, such as the case study on Papua and New Guinea traced in the next chapter, are all too rare. There is little literature which admits the importance for planning of *such issues or provides examples for those new to planning.*

The chapters which follow attempt to go beyond demonstration of the importance and complexity of these issues in successful planning. The final plan is important but so is an appreciation of the planning process. A worthwhile plan is more than a specification of goals; it is a blueprint for a series of systematic, sequential actions, each related to the others in complex ways (including time and space). Inability to relate legal, financial, physical, human and other aspects of planning is one of the more common causes of unrealistic planning. The necessity of keeping these many variables under control is shown below, first by the example of a complete planning operation in Papua and New Guinea, then in succeeding chapters by other specific examples.

A case study of successful planning

The educational system of Papua and New Guinea provides an excellent example of the real imperatives of educational planning. Rationalization, co-ordination, and even relevance and purposefulness, had been hampered for many years by the difficult terrain and the communication problems and by the presence in the educational field of many mutually suspicious and competitive agencies other than the government. Within the government, rapid post-war expansion had strained old systems past the point of reasonable efficiency. These and other similar stubborn impediments to the achievement of national development goals provoked a review of the situation. It was clear that more effective educational planning was necessary to enable greater progress towards over-all goals.

It was not that there was much dispute about what needed to be done, at least in the quantitative sphere. The obvious shortage of high-level manpower and the narrow base of educational enrolments, coupled with the recent establishment of third-level institutions, made agreement on some of the targets relatively easy. Nor was there a great deal of dispute about the balance desirable among the various competing sectors of education. Some educationists felt that a higher proportion of total resources ought to be allocated to education in preference to other sectors of the economy, but these were all relatively dispassionate discussions which soon became lost in the heat and excitement of trying to find solutions to the more resistant problems of the structure and organization of the education system itself.

The education system of Papua and New Guinea had developed in a peculiarly fragmented way because of the linguistic diversity within the country (over 300 discrete languages), the broken topography,

communication difficulties, the temporary changes in sovereignty during the 1939-45 War, and the lack of pre-war government effort in education arising from the financial stringency of the depression. The government spent little on education in the pre-war period and relied mainly on the efforts of christian missions.

In the post-war period circumstances changed. The government became dissatisfied with the efforts of missions and entered the educational field in a big way itself. Meanwhile, a bewildering variety of missions established themselves and commenced 'schools', which were sometimes effective educational institutions, but were often merely evangelical or catechetical centres. Efforts at detailed planning in the late 1960s met with the practicality of over fifty mutually suspicious mission groups operating in fairly tightly defended territorial areas, all within a country with a population of slightly over two million people.

Government entry into the educational field had begun cautiously in response to demands from salaried town dwellers dependent upon educational qualifications and a mastery of English for their prosperity. At first, government schools were started only where it was impossible or inappropriate to have church schools. Since most churches felt schools were essential to their missionary work, they were happy to be left as much of the responsibility as possible. Some, of course, were resentful of any government activity in education.

As was inevitable, church schools came under increasing financial strain, and, responding to pressure to alleviate this strain, the government introduced subsidies based firstly on pupils' examination successes and later, to overcome the bad effects of that policy, based on teacher qualifications. Financial problems increased and reluctantly the government increased subsidies several times, but it proved more and more difficult for church schools to keep going.

Similarly, pressures increased for greater enrolments in government schools. Government schools could cater for all the children, whatever their denomination, with better trained teachers and they would make it possible for educational development to be integrated more easily with over-all national planning. The government had, by this time, been forced to defer earlier optimistic ideas of universal first-level education and had adopted more sober attainable objectives of 50 per cent of eligible children as an initial first-level enrolment target. Enrolment targets in the second-level and technical schools were linked to the projected growth of the economy. Although there was an existing

absolute shortage of output at the end of second-level school, plans for expansion were to be projected against the long-term needs of the economy.

But no quantitative targets would be practicable unless the education system itself was reshaped. The churches wanted not less than full government salaries for their teachers, free equipment and government support for buildings. If one can oversimplify by cataloguing the most extreme hopes, they also wanted continued freedom to enrol (and refuse) children at their discretion, to place a school wherever they wanted, to continue to employ untrained staff, to have several small uneconomic schools competing in one village; in short to have complete freedom to carry on untrammelled by any restrictions. Moreover, some took refuge in the belief that critical comments directed at the administrative deficiencies or diseconomies in this situation were attempts to restrict religious work.

Despite the need for conservation of scarce resources, no educational plan would have much chance of successful implementation if it failed to take into account the vested interests of the different groups, and the public disputes which would follow any heavy-handed action which diminished historic prerogatives. More likely it would go the way of myriad plans gathering dust in the pigeon-holes of the world's nations. The government decided to grasp the nettle and plan realistically.

The planning task was entrusted to a three-man committee,[1] officially known as the Advisory Committee on Education. The committee was given the task of advising the government on means of co-ordinating the educational activities of the various agencies engaged in education; the amount, payment and conditions of support from public funds of salaries of teachers; and the organization of the teaching service. It was also to advise on ways of increasing the participation of the local level in planning first-level education, and to advise the government on the administrative arrangements necessary to carry out its recommendations. The committee was enjoined to make recommendations which would enable attainment of education and manpower targets in the five-year economic development programme.

1. Comprising W. J. Weeden, C. E. Beeby and G. Gris. Weeden and Beeby are well known internationally and Gris is a New Guinean dentist.

Immediately the committee began its work, the difference between narrow model-building conceptions of educational planning and the broader conception, involving understanding and resolution of the dynamics of the system, became apparent. The committee's first activity, after initial courtesy visits, was to move out through districts and regions visiting educational institutions and discussing the education system with those involved in its operation. What came through at this stage were the fixed points of the system – the size and placement of schools of the various agencies in relation to each other. More particularly, the attitude of various interest groups became apparent. Not surprisingly, unless it surprised the heads of missions, the views of indigenous church teachers were often different from those of the expatriate church leaders. Equally, government school teachers had interests which they felt did not always coincide with those of the Department of Education, and rights which they were anxious not to diminish in any process of rationalization.

The planners then began the arduous and lengthy process of defining a set of objectives, which would be additional to numerical targets, but which all groups would consider fundamental to effective development of the education system. A short list was defined. They would, it was hoped, lead towards:

a) higher standards of education;
b) a truly professional body of teachers;
c) a more effective use of limited resources;
d) a system which would be workable both immediately and following self-government;
e) a system which would contribute towards the strengthening of the sense of national unity;
f) continued protection for parents to choose, as far as possible, the type of education they would wish their children to attend; and
g) safeguards for preserving the identity of voluntary agency schools.

It is significant that further planning did not progress far until these objectives had been hammered out and re-discussed in detail with each identifiable group over a period of some months.

The learning curve for each group varied, but always there was the initial expectation that all their special objectives could be met and it was up to the other groups to compromise and fit in. Gradually each

interest group began to see the interests and fears of the other groups. This understanding, in turn, led to the modification of demands and agreement on objectives.

From the basis of the set of objectives it was possible to move forward to planning the shape of the system. Looming large at all times were economic considerations. Every possible innovation or change was tested against the criteria of how much it would cost and how much it would contribute to the quantitative and qualitative targets desired by the government. Yet these were not the only considerations. Every time new patterns were discussed there were associated problems which had to be solved. Some involved fundamental political philosophy. Could the government really share control of the education system with non-elected private citizens? Could decentralization really work in the face of other centralizing forces? What institutional forms could mediate between the poles of carefully planned use of meagre resources and democratic choice at the local level? How could democratic choice and denominational religious interest be reconciled? How could minority interests be preserved if denominational schools were fostered? How could rural schools be staffed if teacher appointments were by application and choice? Could Public Service teachers be transferred to a new Teaching Service for all teachers, preserving their rights and seniority, yet without putting other teachers at a disadvantage likely to have a qualitatively adverse effect on the whole school system?

These and many other questions kept recurring as the committee met local government councils, teachers' unions, church leaders and civic organizations (e.g. chambers of commerce) as they moved to the national level and back to the district level. At each point the ideas and questions of one group would be tried out in a tentative way on other groups. The effect was a clarification of options and a development of ideas within the committee, serving as a preparation for formulation of the plan.

After many weeks the committee felt able to advance fairly clearly articulated ideas which would allow the achievement of defined quantitative goals but which also provided for the establishment of a national Board of Education with policy making and executive powers. Recommendations for management of the system by the Department of Education dealt with administrative services, control of specifically government schools and safeguarding of standards for the whole system. A Teaching Service Commission was suggested as the employ-

ing authority for all teachers and as the institutional device for regulation of teachers' conditions.

Concurrently, ideas for decentralization of management functions through District Education Boards, specific powers for local government councils and retention of several of the rights and prerogatives of church groups, paralleled the suggested national organization.

Four sets of conditions were set out for each of four classes of membership for schools and teachers, depending on the willingness of either school authorities or individual teachers to agree to common conditions, or various modifications of these conditions. The various classes of membership would attract different levels of financial support, ranging from full salaries and equal rights for member teachers in member schools to no support for permitted schools.

The specifics are not as important in this context as the fact that there were options which would allow each group freely to choose the level of participation, provided the financial consequences were also accepted. Conversely, the attractions and advantages were highest for fully participating schools and progressively diminished in other categories. Since teachers were to receive full salaries only in member schools the attraction was clearly to that level of participation. Nevertheless, no one was 'forced' to compromise basic beliefs for there were alternative options for conscientious objectors.

These ideas were shaped in draft documents produced by the committee as a result of the initial exploratory contacts with representatives of the various interest groups. The drafts, however, were clear, well defined and detailed, making obvious the way in which local, special and national interests had been integrated. It was a definite staging point in the planning process, preparatory to the next stage.

There is no neat way to describe the ensuing stage. Government officials and economic planners took the first drafts and worked up the costs of the various options, thus clarifying which of these they would advance to the committee as being either too generous or too difficult. Religious denominations caucused to see the extent to which their concerns were shared. Teachers sought advice from many sources as to where their best interests lay. Officials made tentative estimates of the impact of proposals on wastage and on progression rates. Informal workshops were held to bring together the different groups to hear each other's point of view.

Towards the end of this stage, perhaps the most valuable exercise of all was instituted. A small group of informed government, church and

teachers' union officials met together with the committee and began a deliberate unravelling of each thread of the proposals. Each answer to a question raised other questions. If a church wanted affiliate membership for its schools and some of its teachers wanted full membership, for the sake of the financial benefits, would they have to accept appointments in government or other church schools? In that event, how would they make the move? Assuming the move were permissible, would this not re-distribute the proportion of schools in various areas? Would not such changes, in turn, lead to concentrations of schools in areas other than those planned? How would this affect the district part of the five-year plan? How would this, in turn, affect realization of the national plan?

Since a key issue of any education plan is the quality of schools, care had been taken in formulating these proposals to build in, as far as possible, arrangements which would tend to improve the quality of schools. One device was to restrict full participation to those schools prepared to offer a full first-level course (in the case of first-level schools), in a well enough equipped building and with satisfactory progression rates. Teachers could only obtain full financial assistance in schools of this kind, so there was an incentive for them to encourage their own agency into operating effective schools or to gravitate to schools of membership status. As much care was taken over formulating these self-regulating conditions for improved quality as was taken with the formulation of conditions which would control the scope and direction of the school system.

Many innovations fall on unreceptive ears when first introduced. One of the difficult arts of the planner is to achieve a willing suspension of disbelief over a long enough period to allow a proposed innovation to be examined unemotionally without over-hasty or defensive rejection. The concepts of varying levels of membership, and election by each group as suited its interest, were at first not well received by some government officers who were anxious for tight control of the system, nor by those seeking financial assistance without restriction on their freedom. The skill of the planners lay in setting out the proposals in a way which made clear to the government side that effective responsiveness to national goals could be achieved, and to the other side that there was adequate scope for individual freedom. Nevertheless, suggested innovations, when advanced, took time to mature. By the time the Committee of Inquiry retired to write its report after this continuous consultation which covered a period of some weeks,

there was no doubt that many of the people consulted felt that they had a major part in the shaping of the ideas it would contain. There were many who were committed, by the support given to their own ideas, to support the logical flow-on effects in other aspects of the proposed plan.

Publication of the Report[1] was followed by a speedy consideration by the government, since the planners had at all stages kept in close contact with the decision-makers in government (which in this case meant both in New Guinea and in Australia). There was no barrier to acceptance of the report in those quarters. Similarly, the respective authorities in church agencies and in teachers' groups supported the report. Members of the House of Assembly thus became aware of a ground swell of support, which had the result, when the report was introduced to the House of Assembly, of giving it an easy passage to acceptance. The Department of Education was directed to implement the whole report without modification. Decisions on implementation were taken within three months of first publication of the report.

Following acceptance of the report, the usual implementation problems had to be overcome. There were two years of strenuous activity, in which legislation was written, boards and committees set up, applications for membership of the new system analysed, new paying and administrative arrangements devised – in short, the whole apparatus for the new system. Although easily described in a sentence or two, the early part of this phase was beset with many doubts and fears. Similarly, major administrative changes were not accomplished without the tremendous strain characteristic of administrative change in a developing country. It is not the place here to describe the implementation phase, or be concerned with its difficulties and successes, but simply to show that there was a long and involved implementation phase, not much less difficult than the planning phase, but different in character.

In this way a national education system, shaped and geared to the needs of Papua and New Guinea in the seventies, was created. All those who became members of the new system were forced, as a condition of joining, to examine their own progression and wastage rates and guarantee to work within national parameters (which, by the new arrangements, they would have a hand in shaping). Similarly, the

1. *Report of the Advisory Committee on Education in Papua and New Guinea, 1969*, Department of Education, Canberra, 1969.

arrangements provided for a balance between levels and sectors of the education system and means of correcting any disequilibrium. All of these arrangements were, in the ultimate, integral to making a plan which, when implemented, made the education system responsive to national needs.

Planning in practice

The example in the Papua and New Guinea case study of the complex interplay of many specific factors is typical of the difficulties which will confront a planner seeking to devise a plan which will appear to the country concerned to be what is needed. What the Papua and New Guinea Advisory Committee had to do is typical of successful planning. Unfortunately, planners rarely write up such experience, precisely because it is difficult to categorize, and hence, seemingly, somewhat less 'respectable' or 'scientific' than other planning techniques. It isn't surprising that these aspects of planning seem less scientific for it is as yet often difficult to find better descriptive words than 'intuition', 'feel', 'experience' or 'judgement' to describe how the planner arrives at an assessment of the importance of problems. Nor is it easy to describe the process of finding order amid complexity. Individual experience is still the most common guide.

This chapter will not be able to provide a comprehensive typology of such experience. The most optimistic hope is to give some examples which will provide clues to the sort of investigation and constructive action required of a planner. There is no complete short cut to the skills acquired from long experience by men like Beeby and Weeden: their long experience enables them to spot pressure points without wasted effort or false starts. Even if there was a short cut for training in analytical techniques, there would remain the problem of planning new structures and procedures. One can't be sure that any training is particularly effective for that purpose, especially as each planning exercise will demand a unique solution in at least some respects.

Creative educational planners are no more likely to emerge from university courses in 'educational planning problems' than first rate

writers are from courses in English literature criticism. Some may survive, as some authors have, but others may be loaded with a numbing weight of precedent. Moreover, the generally conservative orientation of the teaching profession raises additional problems for the ex-teacher changing over to planning. As in other fields, successful work-experience will give the planner more capacity as well as more assurance in the creative aspects of his task, although the experience might be costly for his first clients. A safer route is undoubtedly the kind of clinical apprenticeship training, on the job, with an experienced professional which has characterized medicine and law.

More explicitly one needs to think in terms of characteristics desirable in a creative planner. He will clearly need skills in devising novel arrangements—for some situations there will be no precedent in other education systems. He will need the capacity to visualize the whole network of relationships within an education system and the effect on all of a change in one—the same sort of skill displayed by a master chess player working out contingencies several moves ahead. Third, he will need training in risk-taking, primarily to weigh up the relative risks of possible planning options, although also to be professionally comfortable in high-risk situations. All of the characteristics which make the planner 'creative' require the capacity to go out from the known, routine ways of operating in new directions; they are requirements not easily satisfied.

Certainly the initial approach to planning is common to successful planners. They are akin to detectives in their willingness to spend hours unravelling details which at first sight appear only distantly related to the main sweep of enrolment targets and budgets, but which on closer investigation can be seen to flow in a series of logical connexions from the main thrust of the planning. Like the detective, too, they have a distrust, almost amounting to a cynicism, of easy answers. The prevailing philosophy is always 'it can't be that simple'. They assume there are attitudes, beliefs, habits and traditions about which it is difficult to acquire information but which are integral to understanding. Patient, careful investigation is essential.

What follows below is a series of examples grouped in an elementary way to show the type of problem encountered and the way such problems might affect planning. Planners must expect such problems and provide solutions in any final plan.

Political considerations

General political instability will obviously interfere with most activities within a country, including the approach to planning. Similarly, the philosophy of the party in power exerts considerable influence on planning possibilities. Those sorts of political influences on planning are well enough known not to need further elaboration, but beyond them are apparently less major influences and events which can be quite important for an educational planner hoping for implementation of his plans.

The stability of the government as a whole may mask frequent changes of minister. Rarely do two successive ministers press the same policies, for each minister, especially if young and ambitious, tries to establish an individual political personality through his handling of the portfolio. Often, too, the government allows considerable freedom of action to individual ministers. When there are frequent changes, time is wasted in the change-over of each minister, in acquisition of mastery by the new minister of on-going activities, and in anticipation of further changes, so that during such periods, which can be almost continuous, effective planning is unlikely even if permanent officials see a need for fundamental reform.

Frequent ministerial changes should lead to contingency planning to counter their effects. The strategy might either be limited objectives, or the creation and use of unorthodox techniques for bringing about change. It might be necessary to work out means of re-insuring against ministerial eccentricity by seeking cabinet decisions on much more than the broad lines of development policy. This in turn may necessitate getting educational planning submissions to the cabinet as part of other decisions, although necessarily, if they are not to be opposed, in a form that the Minister for Education does not feel threatens his ministerial prerogatives. Proposed immediate changes with far-reaching consequences may have to be insulated against future thoughtless cross-currents by incorporation into amendments to the Education Act. The possible techniques range over presidential decrees, cabinet decisions, institutional structures, procedures, legislation and many other devices as fit the circumstances.

Similar planning responses may be necessary to counter personal antipathies among ministers. Time after time at conferences one hears that a particular event or innovation would have been possible but for the fact that, say, the Minister for Education and the Minister for Labour would not get together. The same is true of course at the civil

servant level for permanent secretaries. What's more, everyone knows about such facts of life and routine activities are adjusted to circumvent the difficulties. Planners cannot pretend there are no such problems; possibly they cannot be mentioned explicitly, but the planner will have to show that he is aware of the situation by setting up his plan in a way that achieves consultation, perhaps, for example, by ensuring equal prestige to the two ministers concerned, or by allowing public opinion to bear if one is likely to hold back.

Absence of personal antipathies will not mean automatic interdepartmental co-ordination. Lack of experience in individuals or inability to see clearly the advantages of co-ordination are two common reasons for liaison problems. In my experience, another, at the civil servant level, is sheer shortage of capable people. Often there aren't enough working hours for the few competent officials to manage both field operations and achieve interdepartmental liaison, so what disappears very often is the lateral consultation. Moreover, the 'politics' of the civil service are not less a factor than at the level of elected parliamentarians. Civil service rivalries can be even more frustrating than political rivalry because there is no election to give any possibility of relief through replacement of an offending official; all of which makes life difficult for the planner and demands ingenious solutions.

Treasury regulations

One of the agencies most deeply involved in planning is the treasury, not only for the provision of cash but in predetermining (often inadvertently) whether new schemes can be made to work. Consider, as an example, the nagging apparently simple problem, common in developing countries, of maintenance of equipment and re-supply of consumable items for teaching. The treasury usually operates on the quite rational general principles that government cash funds should be handled only by a limited number of trained officials, and that maximum economies are obtained through bulk purchasing arrangements. Unfortunately, in the case of equipment and consumable supplies, there is rarely an efficient internal distribution system to break down the bulk supplies into acceptable packages for transport (especially such supplies as acids for science teaching) and, moreover, internal transport patterns do not necessarily centre around the point of delivery from national and international suppliers. Treasury regulations may conflict with practical distribution patterns and, as a result, schools

will go without. Machines break down for lack of spare parts and teaching is ineffective through absence of welding steel, or iron sulphide, or ink for the duplicating machine.

Provision of an adequate budget for materials purchase and supply won't necessarily solve the problem for there may be rules which prevent distribution of cash funds to individual schools or there may still be physical problems of distribution. In the latter case the planner's assistants will have to investigate the distribution system personally. He may then have to prove to sceptical treasury people that the supplies cannot be distributed through the government system or that the cost of distribution through government supply organizations will be more than the efficient alternative he proposes.

Treasury officials rightly suspect the motives of those who want government cash in their hands. There is a natural tendency to think that teachers will use it carelessly and, of course, there is always a fear that someone will pocket some. Treasury regulations are designed to prevent theft and misuse of public funds, a principle which in some countries is carried to the point where the regulations prevent the development of efficient systems of supply.

Treasury Acts, Auditing Acts and their accompanying regulations, in my experience, take precedence over almost all other legislative bases of government action. Although it is reasonable that this should be so, problems arise because the regulations are often taken over from a developed country able to afford regulations which reduce the incidence of error or theft to minimal proportions, and also because the dynamic nature of many countries makes frequent revisions of the supply system necessary – something that is rarely done.

On the other hand, it is a constant challenge to the planner's ingenuity to prevent apparently simple and useful changes in the education system from involving more cost and effort elsewhere in the government system. A simple example, showing how easily one can be deceived, occurred in one planning exercise when there was an apparent annual saving of hundreds of man-hours of staff work brought about by a change in the pattern of deductions from teacher's salaries. The change involved making two separate deductions in place of one amalgamated deduction which had to be re-analysed later. The innovation could not be implemented because all of the channels on the treasury salary calculating machines were being used already. The change would have required much more work (by causing double processing) than the effort saved in the Education Department.

Budgetary planning

It is helpful to look at some planning problems in the budget process. The five-year plan which balances finances so neatly when first written is always upset by falling commodity prices, rising salaries, inflation or some other similar problem. Almost always, there are also increased costs, so that as early as the second year available resources are less than demands.

Although everybody suffers in the general slowing down of the development programme, two factors compound the squeeze on the education budget, the fact that, as everywhere in the world, inflation hits hard through the high proportion (in the region of 75 per cent) of recurrent budget costs spent on salaries, and the fact that numerical expansion targets are the last targets politicians are willing to see reduced. Teachers are kept on, but all other costs are cut.

Typically, budgets are made up by the treasury setting aside for education a proportion of the over-all budget in accordance with the cabinet's directions. Teacher salary costs are computed as a first charge on the total available and only that cash remaining can be allocated for such other expenses as curriculum development. Treasury officials may regard typical arguments about the need for adequate curriculum materials as colourful waffling. They have little time to accomplish a thankless and difficult budget-balancing task and, in any case they work usually within a cabinet direction on over-all proportions, so they tend not to be impressed by imprecision.

The wise planner will foresee these problems and adjust his planning strategy to the rule-of-thumb attitudes of those outside educational circles. At the risk of over-simplification, the educational planner needs to avoid the charge of 'waffling' or hazy thinking. One strategy is to devise a firm ratio of curriculum development costs to salary costs. The size of the ratio may vary from place to place according to the emphasis placed on curriculum development, and as such does not concern us here. What does concern us is the ability of the planner to forecast the pressures, and the way most people will want to deal with them, and react accordingly. In the present instance his strategy of tying the component costs of a teacher's salary, a unit of curriculum development costs, a unit of furniture costs, etc., into an over-all package, which everyone regards as indivisible, gives an easy, mechanical way of arriving at the budget. At the same time it counters pressures to employ more teachers in spite of an inability to service them reasonably

well. Existing costs can easily be demonstrated but plans may not argue the relationships between component costs convincingly enough for the future if the development of budgetary pressures is not foreseen clearly.

Service conditions

The effect of service conditions on planning objectives contributes one of the more serious reasons for non-implementation of plans. Some examples will serve to illustrate the types of problems and the chain-reaction effects which flow from them.

One might see in an educational plan a sentence like 'The D certificate teacher will be phased out over the next five years'. Bald phraseology of that kind gives no clue to the human problems involved. A plan for the development of the Eastern Region of Nigeria some years ago calculated that nationalization and amalgamation of schools would result in a diminished need for teachers—some 10,000 less than the current level of employment. The teachers displaced would be the untrained or inadequately trained. Imagine the cost in human suffering if these teachers were merely displaced without some consideration of alternative forms of employment or compensation. The obligation of governments who have been happy to utilize teachers' services, no matter how inadequate those services, do not cease when the need is removed. Plans are, after all, meant to increase the well-being of a nation's citizens.

Another example arises from the reasonable hope that improvements in the quality of teachers, especially in positions of authority, will automatically improve the programme offered in schools. This expectation suggests a plan to promote qualified young teachers quickly. What, then, of the older teacher who has given faithful retainer service, and who would normally, in his own society, acquire increasing status and respect as the years passed? Under promotion by qualifications systems, this type of teacher is frequently by-passed by younger men and the status and respect accorded him progressively diminish as the years pass, as successive waves of increasingly better educated and trained young people take over the status positions. Planners who have not seen, at first hand, the hurt and bewilderment that this process causes, could be excused for considering the problem as relatively unimportant in the sweep of national planning—but if they plan this way they may also wonder why their otherwise unexceptionable plans do not get far.

Similarly, important questions asked of proposed changes in salary schedules, designed to keep the best teachers in classrooms, would be the real or imagined changes in status and prestige for different groups affected by the change – issues arousing much passion. Sensitive understanding of status issues would be necessary, for although the changes may be consciously directed toward a better reward pattern for the future, they would have a counter-productive influence if currently serving teachers were to see their present status threatened, even temporarily. In this sense planning possibilities are always mortgaged to present realities.

One can even see planning problems if it were suggested that 'inspectors' be converted into specialist advisors. Along with the professional gains obtained by removing the 'bogey man' image, there would be other consequences not so advantageous. Presumably inspectors could not in the new role prepare the inspection reports upon which many appointments are currently based. Abolition of the reporting role might lead to appointments based on seniority of service alone, or on some other unattractive basis – with disadvantageous results for the quality of the education programme. The plan must be explicitly designed to prevent consequential ill-effects of otherwise desirable changes.

Organization and staffing

The management structure of the education system of a developing country can remind one forcibly of a juggling act with the difference that more balls are constantly being added, until the management is trying to keep an impossible number of balls up in the air at once. It may look an obvious case for re-organization, but no-one has time to think through what is required and prepare the detailed documentation for the Civil Service Commission. The apparently unenviable choice between neglect of an on-going activity and deferral of organizational reform is not really a choice in practice; immediate pressures always win – the line of people outside the office door can never be ignored.

The necessity for a planner to be creative, and the difficulties of training and selection this necessity causes, have already been mentioned. There is, in fact, a double difficulty, for the planner has to be so creative with his solutions as to overcome the lack of creativity in those who are to implement the plans. Undoubtedly it takes more

talent and time to devise a new organization or to implement change than to administer routine activity running in well-defined channels. People with the capacity to implement change creatively may not be available, so the plan must endeavour to compensate for the deficiencies of present incumbents of senior positions.

The organizational problem of education systems often appears at first glance to be an administrator's problem rather than a planner's problem, but I do not see that the administrator can be expected to deal in other than an *ad hoc* way with the planning of an effective system for identification, preparation and placement (and, possibly, displacement) of individuals in tenured civil service systems. It is a planner's task whether carried out by the generalist administrator or the specialist planner. My contention is that such intricate planning requires finesse and judgement; above all it requires the insight to understand the relationship of the organizational pattern to the objectives of the education system, and time to complete the study of the long-distance implications. The distinction between the administrator and the planner lies essentially in the planner's brief to be concerned with events over a long time and throughout the education complex. The press of daily events demanding the administrator's time prevents thorough study of all the necessary variables which will ultimately affect and limit long-range outcomes.

Community attitudes to the education system

Although much detailed information on community attitudes and values will always be lacking, there is a constant necessity in planning to improve this information and to make intelligent appraisals on the basis of existing information. Although we cannot get full information on questions such as: why do parents send their children to school at all; why do they enrol the particular children and not others; why boys in preference to girls; why do some villages enrol equal boys and girls and others only boys; which relatives contribute to fee payment; what do they expect in return--planning still must go ahead.

The negative aspects of community attitudes better illustrate our present concern. New types of educational institutions succeed, change or fail basically on community reaction. Even the best publicized and supported government programmes for agricultural education in village schools fall by the wayside in the face of indifference or even outright antagonism from both parents and pupils. A colleague rue-

fully tells the story of a follow-up he did fifteen years after his ex-pupils graduated from a rural-bias second-level school, thought at the time to be most successful. Of 200 ex-pupils, only one was working on the land. Most of those surveyed were quite surprised at the suggestion that the purpose of the school had been to prepare them to work their family land, even though many lessons had been conducted in the pig pen or in the coffee plot, and they had spent the major part of their time in rural activities. They had been sent to school for another purpose.

The tightness of the relationship between communities and the educational institutions which can be developed to serve them can be seen through an example at the second level. The British grammar school model, which has been paramount in much of Africa for decades, has been severely criticized as unsuitable for the needs of African countries. Some feel that the philosophy of the American comprehensive school is better suited to development needs. In an interesting attempt to 'plant' this sort of second-level institution on Nigerian soil and to explore the problems of institutional innovation, Harvard University sponsored and developed a comprehensive second-level school (Aiyetoro), including open entry from surrounding first-level schools. It was also, through expert assistance from Harvard using Ford Foundation funds, to develop and pilot-test comprehensive school curricula.

Praiseworthy attempts have been made to fulfil the original objectives, but the facts of the Nigerian scene illustrate how the basic idea cannot be fully realized. Comprehensive schools are not possible when all cannot go to school. The fierce competition for second-level places necessitates selection, either on examination ability or by capacity to pay fees, or both. Second-level pupils are thus the more gifted children of higher economic classes. The comprehensive school ideal must founder unless there are schools for all children and unless there aren't any fees which keep out poorer pupils, that is, there must be universal second-level education supported by tax revenues. Where these conditions are not fulfilled, as in Nigeria, schools are forced to become selective and curricula must be varied to suit the type of student body which is enrolled as a result.

The comprehensive idea *might* work if the level of facilities and teacher costs is kept within reach of a determined energetic community, and if there is a determined move nationwide to prevent the counter-attraction of élite schools.

Most developing countries are not able to develop genuine comprehensive second-level schools for the conditions in which they can flourish do not exist. That is not to say that better curricula than the present curricula are impossible. It is merely to acknowledge that communities have expectations of the school system which may be different from those of the educational establishment. They have the common sense to exploit the system, whatever it is, to their own best advantage, thereby putting great pressure on innovations like Aiyetoro. Inevitably the educational establishments are re-shaped or even transformed by community pressures or they can plan ways of developing new expectations, a very difficult task indeed.

Similarly community expectations frequently cut across such well meaning plans to improve education as the abolition of examinations (a move designed to foster diversity and professional initiative). In developed countries state-wide public examinations are much maligned as barriers to professional initiative and freedom, yet they seem to reassure communities in quite important ways, especially when there are insufficient places at the next level for all those leaving the lower level. The monetary rewards of passing at the next level, and the job which depends on it, are so important, and competition is so intense, that a system of selection open to public scrutiny is essential. Abolition of examinations would impose the difficult requirement of substitution of other devices in which the community has equal confidence. Planners ignore such expectations only at the risk of being ignored themselves.

Reconciliation of interests

In the example of Papua and New Guinea discussed earlier, there were a variety of opposed interests which had to be reconciled in the planned structure of the over-all system. A major planning task is always to identify these and then provide planning solutions which reconcile the various interests and balance their influence in the national interest. No planning task is more fraught with difficulty or more absorbing. From the great variety of examples, two, concerning unions and religious bodies, will be used, for both influences almost universally have a bearing on the educational structure of any country.

I speak first of teachers' unions. The discussion of service conditions has illustrated several examples of changes which involve teachers' unions deeply. The quality of leadership of the union and the union

philosophy have considerable bearing on what can be achieved. No example is needed of the strong conservative teachers' union which acts as an impediment to change; there are many current examples in both developed and developing countries of unions reluctant to accept change, thereby taxing to the utmost the ingenuity of planners to find means of overcoming the difficulties caused by conservatism.

Creative planners could also think of union leaders in another role – facilitators and organizers of desirable change. Such a role will only be possible if union leaders see benefits for members in the plan, a matter, for the most part, depending on the planner's knowledge of the aspirations and motivations of the union leadership. A well run union has the effect of channelling the energies of teachers into action which can just as easily be constructive as obstructive. Absence of an effective union, for example, can lead to sporadic, unpredictable local disputes. Changes are viewed with suspicion because there is no organization which teachers view as particularly theirs and from which they get advice. There's many an administrator who has helped the union to suggest desirable changes to himself and has then enthusiastically adopted them.

Planning involving participation of the union is more advantageous than leaving the union out of consideration, even if the union is militant, provided the planning is knowledgeable and aware of union aspirations.

The opposite side of the coin, the inter-relationship between unions and political action, is just as important. The prominence of ex-teachers and teachers' unions in the politics of developing countries may lead prime ministers to adopt cautious attitudes towards any moves for the government to establish, strengthen or even co-operate with teachers' unions. The planner has the delicate dilemma of deciding what recommendations concerning the involvement of unions in educational development will win acceptance and yet be worthwhile enough to harness the energies of teachers in constructive ways.

The other example I have chosen of the need for the reconciliation of a multiplicity of interests concerns religion. Religion and education have been so closely related as to be inseparable in the minds of many, particularly, for example, adherents of Christian denominations and Moslems. The resulting problems for planners cannot be ignored. My experience has been within areas where only Christian denominations are active, but that has not lessened the problems. In one example which comes to mind, it seemed desirable to have church

educational representation on several key boards and committees, but church adherence was split seventy-five per cent for one and twenty-five per cent for the other – and there were only two places. Should there be one representative of each or two from one denomination and none from the other? If one and one, could the one from the larger group claim greater weight for his views? The religious denominations felt that the solution lay in increasing their representation to three, on the basis of two representing the larger denomination and one the other. When the other interest groups to be represented on the board heard of this request they sought greater representation, which in turn would have made the board unworkably large. Agreement was only reached when re-arranged constituencies for the boards made membership allocation clear-cut.

A plan invariably means more careful shaping of national resources by elimination of wasteful competition or inefficient practices. Any moves of this kind can easily be interpreted as interference with religious freedom or nationalization, especially when words like 'restrict', 'authority' and 'control' appear in the plan. The accustomed usage of such words is frequently quite different in theological circles from that of government circles. The missionary working away in the provinces reads a quite different implication into the plan and begins to build opposition from the pulpit.

Beyond that sort of misunderstanding there are many occasions on which the fundamental philosophies of church and state can come into collision. Despite (or because of) their debt to pioneering church schools, many leaders of developing countries see a need for the state to have a strong hand in the management of the school system. Those churches which see schools as the principal instrument of evangelization resist interference in what they feel is a fundamental right to teach the truth as they see it.

The practical problems are myriad. Even within the supposedly monolithic Roman Catholic Church, in modern times, one can find supporters of state financing and control of first-level education (providing the right to teach religion is safeguarded), as well as fierce partisans for traditional church schools. Capital grants with or without conditions may be supported by some denominations and may be opposed by others, depending on the foothold in the country of that particular denomination and its view of the rival denomination's efforts. For staffing, equipment, conditions of entry of pupils, capitalization, membership of committees or any of the other practical issues,

there will be divergent views which must be harmonized, not only at the time of initial planning, but also by the creation of institutions which will facilitate harmonization in the future.

A further point is that the interests of teachers, churches and, of course, parents coincide in apparent opposition to the planner in concern for *individual* as opposed to *national* considerations. No planner should forget that in, say, specifying a limit on intake into second-level schools, he is effectively challenging every classroom teacher's ingenuity. By their commitment to the individuals, teachers do not accept as just that only a small proportion of their classes can be admitted to the second level no matter what the state of the economy. They use all their skill and inventiveness to do the best they can for their pupils, to press against the restriction, to probe the selection devices. A plan which shows compassion and understanding of concern for individual worth, will be more acceptable than one which omits such considerations, but more practically, the planner needs to be very skilful to devise justifiable schemes of streaming and selection in face of the tests his schemes will be subjected to by the teachers.

Lack of educational knowledge

Paucity of statistics and the unreliability of those available are well known phenomena in planning circles. The diseconomies of repeaters and large percentages of drop-outs have become well enough known to encourage more effort to establish these figures and the situation is improving almost everywhere. When there are good statistics, there will be underlying educational issues which can only be ignored at the risk of producing plans based on wrong suppositions.

One common explanation of drop-outs, for example, is the poverty of parents and their need for every extra hand in the fields. If so, drop-out rates should be highest where food is hardest to obtain and low in fertile, volcanic areas which have abundant food. In one instance in my experience, there wasn't any evidence supporting the view that differing drop-out rates depended on food availability. So it was suggested that it might be differences in teacher characteristics which caused higher drop-out rates from one school to the other. Unfortunately for planners there were no reliable significant differences on that variable either. Investigation of other suggestions did not reveal conclusive evidence. Pity the planner who has to plan more economical use of resources when there is so little real evidence of true causes of drop-outs.

Literacy is a commonly stated goal of educational programmes; one which is fundamental to decisions on the length of the first-level school programme. In New Guinea, planners were required some years ago to advise the government whether a four-year first level could be substituted for the then current seven years. There were good political reasons to spread available resources thinly and bring a little education to all, but it was agreed that at the very least the first levels of education should result in literacy. Because of the large number of languages (over three-hundred) and the small size of each language group, government policy was to use English as the language of instruction. As it turned out, when the search for data on language learning had been in progress for some time, there was little reliable evidence on rates of literacy accomplishment in first languages in countries like New Guinea, let alone evidence relating to second language learning. Reluctantly, planners came to the conclusion that they could not say what time at school was necessary for *permanent* literacy. After six years an examination might attest proficiency at that time, but how long the skills last and under what conditions is often outside the range of present knowledge, particularly for second language literacy, so planning must proceed on informed guesses, which naturally have a high error rate.

It is likely that there is a similar gap in knowledge of what mass literacy means to economic development. In other words a fair amount of all planning is based on faith alone. Assumptions must be made, but those whose educational validity is questionable will surely lead to gross planning errors. The wise planner will resist the temptation to appear more certain than the verifiable evidence allows him to be. When he then goes on, as he must, to plan in the absence of good data, his planning will be more realistic and convincing, since he will be building in a safety margin against the possibility of planning error.

Further considerations

The preparation of planners

Any Director of Education in a country about to employ a specialist in educational planning will have expectations about the kind of person needed. Those with skills limited to the manipulation of quantitative data which throw up new enrolment projections are unsuitable because they are unprepared for the toughest problems. In many countries, the manpower *needs* are quite clear from the analyses of economists, and it is a relatively simple task to analyse the *supply* from the education system (if present policies are continued). An educational planner is needed when the supply does not match the need, when changes in the system are essential. He is needed to plan what should be done and to demonstrate that it is feasible.

The experts chosen for the Papua and New Guinea task were technically competent and had skills of analysis in the socio-political field. Above all, however, the problems demanded an understanding of organizational structure, of administrative processes and of the various interdependencies between church and state, between government and unions and between the national level and the local level. The relative merits of various arguments had to be assessed in the process of devising an optimum solution which could be implemented. The planners were successful because they went beyond the indispensable formal analyses to get reactions and opinions to tentative solutions, to get more qualitative evidence and to test possible arrangements against practical situations—in short, to plan realistically.

Manpower analysis is not the main task of an educational planner. Economists have the tools to undertake that task more efficiently, and

have the added advantage of being aware of the limitations of their knowledge. The educational planner's special task is to provide skills and insights peculiar to the educational system. In many ways his role is analogous to the role of a management consultant in commerce who must plan rational management structures and appropriate company business processes as part of his planning for increased profits.

The discussion throughout has thrown into relief special personality characteristics such as balance and judgement, the necessity for which becomes more and more evident the further one goes from reliable quantitative data. To these should be added objectivity for this is a particular way in which the planner's role is distinguished from that of the administrator. Whereas the administrator has close ties to daily activity and even an emotional commitment to particular lines of action, the planner has the responsibility to stand rather outside the fray assessing pressures dispassionately.

In earlier discussion, I stressed the need for a planner to be especially ingenious and creative. Examples of the need for creativity abound but special notice needs to be taken of the point that problems go without solution for long periods simply because hard-pressed administrators are unable to devise a new institution or new procedures. In the Papua and New Guinea case study, for example, the device of several levels of possible financial assistance, giving graduated involvement in planned development, solved many real problems, for it provided a choice (so as to avoid charges of diminished religious freedom) but promised resources in return at a level the church schools were accustomed to receiving and could not do without. The planning art lay both in the creative device and in the careful calculation of forces which would make everyone happy.

Planning approach

One element of successful planning, rarely given sufficient emphasis, is time - time to let plans mature, to digest new ideas, to become used to new proposals. Ideas emerge and crystallize from a vast mass of inchoate feelings and attitudes. The initial reaction of those to be affected by new proposals, and who must work willingly together if they are to be successful, will take some time to become known to the planner, and yet planning is often done as though the end product is the first airing of proposals. Lacking explanation, involvement, and possibly even awareness, there can arise among those affected the

resentments which will prevent implementation. In realistic planning, ideas are explored and tested, re-shaped and re-tested; there is feedback through responses to the original stimulating ideas and successive reshaping of the material, with each stage more nearly approximating the desired result as more difficulties are resolved or eliminated. Many human activities are improved in this way.

Presentation of plans

The plan that is the most obvious outcome of the planner's work reveals the planner's conception of his own role. In a national development plan the space available for discussion of education will naturally be limited, so that possibly only a summary of the plan, confined to quantitative tables with only brief mention of major issues and problems, will be presented. Possibly, too, the choice of language in that summary will be impersonal and formal, but a plan is rarely accepted on the summary alone. Before that stage the whole plan must pass through the hands of many people, whose opinion is critical to implementation decisions. Moreover, following government acceptance of the over-all educational targets, the details are still of vital importance to successful implementation.

If carefully presented, the detailed plan will do much to guide the administrative approach, the manner of implementation and the reaction of those affected by the planning, and thus will influence general acceptance and successful outcomes. Successful planners know that the following points of detail are important.

1. *Audience*

One needs to be aware that there are several audiences for any plan, ranging as high as the Prime Minister, through Treasury and Ministry of Education officials, churches, businessmen, teachers and, not least, the parents whose children are affected by the plan. If they are not to oppose the plan these groups must be addressed in ways which allow them to understand directly, without the need for the Ministry of Education to explain, that their firm convictions have been registered and have been weighed with compassion in the final planning, especially if the plan cuts across those convictions.

2. *Assessment of the present system*

It comes as a shock to many people to see a crisp analysis of the sprawl-

ing ramifications of a system with which they are so familiar. That alone, may set the stage for acceptance of change.

3. *Principles*
Ultimately many specifics of the examination system, selection, placement of second-level schools, provision of boarding facilities, fees, etc., trace back to a particular social principle such as 'equality of access'. The more explicit and acceptable these principles are, and the more logically they can be traced and shown to be operating in the specifics of the plan, the more reasonable the whole plan will seem.

4. *Lucidity*
Because the present system can be criticized and, like all education systems, can look pretty chaotic when crisply analysed, considerable art must be employed to convince readers of the advantages of the new course of action rather than of their previous follies.

5. *Level of detail; completeness*
If, as suggested above, the task of the planner is to strive for the kind of completeness which covers not only what must be done but how it can be done, the question arises—where does it all stop? There are always time and cost limitations forcing planners to stop somewhere. Sometimes a key detail is necessary; sometimes the broad brush is enough. When an apparent detail can impede the main thrust of a plan, particularly when it has been a long-standing difficulty, it must be covered in the plan. The judgement is always made in terms of whether implementation of the plan would grind to a halt if guidance were not provided.

The planning function of government

Many will not concede that there is legitimately a professional speciality in education entitling a person to call himself a 'planner'; there are many others who insist that planning is just as legitimately a specialized task in education as any other of the current specialities. The argument is irrelevant provided it is admitted that there is a difference in functional emphasis in government between administration and planning, a difference often necessitating different officials. Partnership is essential between officials carrying out these different functions, whether the planner is outside the education ministry in a planning commission

or is part of the ministry itself. They have complementary roles which will be most fruitfully realized when each is aware of the importance of the other's skills and function.

Delineation of a specialist planning function has not lessened the responsibility of the administrator, for even now final responsibility for planning most often rests with him. A specialized function of planning (and hence 'planner') has undoubtedly become better defined because the immediate pressure of daily tasks prevents the administrator from giving adequate time to planning and because, as I have mentioned earlier, of the apparently powerful relationship between educational planning and economic development. It is not surprising that there has been an over-emphasis on technical factors in planning, nor that the issues discussed in this paper have been seen as issues requiring little more than *ad hoc* responses. Despite the truth of the assertion that administrators have sometimes, by drawing on their experience, managed to implement many incomplete plans, no plan is adequate if it neglects organizational and process issues.

Many of the examples in the preceding pages have been deliberately chosen to show how 'micro' problems can effect the more familiar broad-brush 'macro' planning. The day-by-day juggling with these problems, which is the administrator's lot, must be superseded in the planning process by conscious and systematic analysis which projects forward any likely developments, judges the relative importance of different aspects and designs new processes and structures which will contribute to the realization of the over-all goals of the plan.

Similarly, it would also have been obvious that many of the examples were concerned with the 'quality of education', all too often inadvertently missed by those whose main interest is economic planning. Human and organizational problems loom large in planning for quality in education. Where quality is a major goal of the education system the factors discussed in this paper will become of paramount importance.

I have tried to show throughout the discussion that one can admit the difficulty of obtaining objective data and the need for sensitive investigation and weighting of the variables – in short, the rudimentary state of the art – without at the same time agreeing that these aspects are to be ignored. It is one thing to agree that one needs the patience of a jig-saw-puzzle addict to find solutions, but quite another, intolerable, attitude to suggest that the jumble of pieces of information is unworthy of the attention of a skilled planner. The very volume of data readily

available on these aspects demands highly skilled attention if the basic pattern is to be discerned and developed.

In conclusion, it is useful to restate the opening argument: educational planners are useful if, and only if, they have the skills and insights to do what general planners cannot do. The education system is the biggest single enterprise in most countries and its unique feature is that human beings are (in economic jargon) the complete unit—input, output, processing machines and managers. This unique involvement of human beings in every aspect makes their capacities, reactions, systems and aspirations the main variables in planning. Educational planners must then be comparably skilled. On their skill in organizing and creating the processes and structures within the education system which best promote these aspirations, will ultimately depend their usefulness. Successful planning, whatever the circumstances under which it is done or by whom, must in the end be practical and realistic.

IIEP book list

The following books, published by Unesco:IIEP, are obtainable from the Institute or from Unesco and its national distributors throughout the world:

Educational cost analysis in action: case studies for planners (1972. Three volumes)
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Educational planning: a bibliography (1964)
Educational planning: a directory of training and research institutions (1968)
Educational planning in the USSR (1968)
Financing educational systems (series of monographs: full list available on request)
Fundamentals of educational planning (series of monographs: full list at front of this volume)
Manpower aspects of educational planning (1968)
Methodologies of educational planning for developing countries by J.D. Chesswas (1968)
Monographies africaines (five titles, in French only: list available on request)
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The new media: memo to educational planners by W. Schramm, P.H. Coombs, F. Kahnert, J. Lyle (1967. A report including analytical conclusions based on the above three volumes of case studies)
Planning the development of universities - I (1971) *II* (1973. Further volumes to appear)
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Published by N.V. Martinus Nijhoff, The Hague, 1973
Managing educational costs by Philip H. Coombs and Jacques Hallak
Published by Oxford University Press, New York, London and Toronto, 1972
Quantitative methods of educational planning by Héctor Correa
Published by International Textbook Co., Scranton, Pa., 1969
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Published by Oxford University Press, New York, London and Toronto, 1968

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The book

Expertise in the technical aspects of planning will not in itself be sufficient to ensure acceptable educational plans. Realistic and feasible plans will only be achieved when due regard has been paid to the underlying structure and organization of the educational system, the human pressures which it is subject to and the processes by which it may be improved. This study analyses these issues, illustrated with case studies, and explains in detail many of the difficulties to be faced by the educational planner.

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ISBN 92-803-1061-5