

A Course of Action to Improve Standards of Education", published in the Proceedings *Seminar on Educational standards, Goroka Teachers College, 15 May 1981* (Editors Dan Harvey and Bill Palmer). Paper read to Kenehe Committee on educational standards on 26 May 1981.

A COURSE OF ACTION TO IMPROVE STANDARDS OF EDUCATION.

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ABSTRACT

This paper examines three areas which would be effective starting points for improving educational standards in Papua New Guinea. They are Teacher Training, Curriculum, Assessment, & School Inspection. This paper suggested a number of ways to improve the standards of education in PNG, which at the time were in need of improvement, but both the political will & increased financial allocation to education were necessary. A list of recommendations which is attached highlights the main suggested points for action.

A COURSE OF ACTION TO IMPROVE STANDARDS OF EDUCATION INTRODUCTION.

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This paper follows Beeby (1) in that it considers that concentration on the following key areas of an educational system will be the most effective in improving the educational system as a whole, particularly where, as in most developing countries, lack of financial & manpower resources is a major constraint.

According to Beeby these key areas are Teacher Training, the Educational Inspectorate, syllabus & curriculum revision & the improvement of the teaching of the lowest class within the system. A previous paper of mine (2) follows the history of Papua New Guinea's educational system & shows fairly conclusively that the only time when both the quantity & quality of education were improved simultaneously was in the early 1960's when Roscoe (3) concentrated on just these factors. However it should be remembered that he also had the political backing of (4) Hasluck, & a guarantee of sufficient resources to enable a start to be made to his plans for Universal Primary Education. This is equally true today. This paper will suggest a number of ways to improve the standards of education in PNG, but both

the political will & increased financial allocation to education have to be available. Without these there is little hope of a rapid improvement in standards. This paper thus makes a number of assumptions about the 'status quo', firstly that the allocation of resources between primary & secondary education stays the same, & consequently the general shape of the educational pyramid will not change & secondly that the government decides to make additional funds available to education to increase efficiency within the system rather than to expand the system further.

Given this scenario what improvements would we like to see carried out? This paper looks at three of the four factors isolated by Beeby & gives a number of suggestions for improvement, each of which would lead to an improvement in standards. In particular the author will give special attention to the role of the inspectorate, but this does not indicate a direction of priorities, only of the author's interest.

Teacher Training

With regard to Primary Teacher Training the author has nothing to add to the suggestions of the authors of the National Education strategy(5). In the field of Secondary Teacher Training the recent report (6) on Secondary Teacher Training in Papua New Guinea again has made clear to the government what needs to be done to improve the quality of secondary teachers. The report awaits implementation. It is also necessary to retain more of the teachers who are trained: salaries appear to be one factor in teacher dissatisfaction, but the main problems seem to be in the posting of teachers & in their conditions of service. However the truth seems to be that very little is known about the retention of teachers in the service. Further research (7)is needed. Finally regular In-Service Training is needed for all teachers. There is no doubt that inadequate teachers have been turned out in the past at all levels of education & we must look at the Nation's stock of teachers & gradually try to bring up their levels of attainment & competence so that new more advanced syllabi may be introduced. In the Science Department at Goroka Teachers' College we have introduced such a course for science teachers, & other departments will be following suit next semester.

Curriculum Improvement/Assessment

Here I will deal just with the secondary school situation. I consider the main constraints on pupils learning in secondary schools to be:-

(a) Lack of text books

One particularly worrying feature of Papua New Guinea secondary education is the lack of text books. I know of no other education system which has so little regard for the written word. In the Nigerian situation with which I am familiar I can state that most pupils had text books in most subjects, though there were undoubtedly shortages & deficiencies at times, but where there were such failures the authorities recognized this & tried to do something about it. I think it is a serious indictment of the Papua New Guinea Department of Education that it does not appear to recognize the need for text books. The provision of syllabuses, work books etc, which is itself inadequate, is not a sufficient substitute, because a clever Papua New Guinean child who has the misfortune to have incompetent teachers cannot learn for himself from books as can children in other countries. One wonders how much

talent has been lost in this way. One can understand the reluctance to use "culturally based" or unsuitable texts, the problems of providing books at the correct level and the problem of the smallness in size of the Papua New Guinean market. However anyone of a number of textbooks would in most subjects be preferable to the almost complete vacuum which now exists.

(b) Lack of Science Equipment

I believe the lack of equipment in secondary schools particularly in science is extremely serious. The extent of the problem is still a subject for research & two members of the science department are investigating the equipment in Provincial High Schools. I have found science equipment extremely limited in the schools I have visited, yet when I asked the In-Service Science teachers at the start of their course for written comments on the problem, shortage of equipment did not rate very high. On teaching practice, students because of lack of equipment, on several occasions did experiments as demonstrations which would normally be done as practicals. If this is the case in, normal teaching it is hardly surprising that pupils fail to master scientific concepts.

(c) Agriculture

Another problem which does not seem to get recognition is the amount of school time given to agriculture, self sufficiency & community projects. They are all very worthy, but it did seem to me on teaching practice that some schools were using student labour wastefully & inefficiently. Many projects are of value educationally, but I got the impression that some projects used large amounts of student time but achieved only limited financial savings.

(d) Science curriculum

The science curriculum is a fair start on which an improved curriculum should be built. Its main deficiencies are repetition of a number of topics, lack of any numerical work, lack of use of instruments which students have made themselves, & the very small proportion of chemical topics included in the syllabus. The rate of progress through the syllabus as measured by the amount of material covered & understood in a given time is abysmal in most schools. The syllabuses themselves if completely understood by Grade 10 would only have covered a small fraction of the work covered in Britain or Nigeria to 'O' level. I would recommend that more than 5 periods per week be given to science & that in Grades 9 & 10 the Physical Sciences & Biological Sciences be taught separately. In the long term separate Physics, Chemistry & Biology should be taught.

(e) Examinations

Finally there should be formal nationally set & marked examinations at the end of Grade 10 in every subject. The performance of students in this examination should be the key to further education. Its level should be about that of CSE in the United Kingdom initially, & hopefully it would be possible to raise standards to about 'O' level eventually. The Prime Minister (8) has said "We in Papua New Guinea can accept no less than that accepted (international) level of performance. There can be no "Melanesian" way to pilot an aeroplane..." If the government really believes this, then there needs to be

a standard international method of measuring performance, i.e. an examination. I also believe that the shared tasks of setting & marking papers in a systematic manner will give Papua New Guinean teachers an excellent opportunity to improve their own knowledge of their subject.

Inspection of Schools

School inspection is considered by international educationalists to be an effective means of raising standards of education, but inspection systems vary as widely as systems of education themselves(9). Modern thought (10) however emphasizes the advisory role of inspectors which is not the main priority of inspectors in Papua New Guinea. This should not be taken to imply any criticism of inspectors in Papua New Guinea, who seem more conscientious & regular in their visiting of schools than many other field officers in the Public Service are in visiting their own areas of interest, and it may well be that it is the regular visits to schools & the good relations which they have with schools that have prevented standards of education deteriorating still further. Inspectors in any country have a fivefold task. Firstly, inspectors offer advice which may be definition be accepted or rejected (11). This advice usually concerns either a subject specialism or wider administrative problems. Secondly, inspectors themselves have an administrative role which means that they are involved in the allocation of human or material resources (12). Thirdly, inspectors make assessments on behalf of a management system. They may assess either the general quality of teaching or the individual quality of teachers & may (13) report to one or two levels of management. Fourthly, inspectors are used as a channel of communication between local & national education authorities & the teachers in schools. When they obtain information on which administrators will base (14) their policy decisions this is a "fact finding function" and is becoming extremely important. In the United Kingdom an increasing amount of the time of inspectors is spent on "fact finding" for reports. Finally inspectors have a duty to inspire teachers to do better, even in the most unpromising situations. This is the role of the 'educational missionary'(15)or an 'energising role' which is of major importance in developing countries where the work of an understanding Inspector can boost the morale of the teaching service in a large area. To carry out all these roles well, would need "supermen" rather than mere mortals, so there is a tendency for different educational systems to emphasize different roles for inspectors. The system of inspection in PNG gives priority to the grading of teachers as the inspectors' most important task coupled with the administrative role of allocating resources. I would recommend a change in the structure of the inspectorate to facilitate inspectors taking on a more advisory role than they play at the moment. The first structural change to be made is to reorganize the inspectorate into a single division including primary inspectors, inspectors of National & Provincial High Schools, Technical Inspectors & most of the staff working on curriculum development. Fewer of these people should be concentrated in Waigani & -are in the Provinces working together from a single office in each province. Gradually through the interchange of ideas, the general expertise of the educational system as a whole is increased, particularly if many visits to schools are made jointly. In addition centrally organized inspections of schools at all levels should be made so that inspectors become used

to working as a team. Such a team is organized(16)to produce full formal reports of particular, institutions which could be primary schools, teachers college technical colleges, Provincial or National High Schools. What has to be fostered is team work through the joint discussion of all major issues in the report on a school. National & expatriate inspectors then develop a broader picture of education, the progress of which is seriously held back by the water-tight organizational compartments in the Department of Education. Inspectors with specialist subject knowledge also work on curriculum projects, but see more of what happens within schools. Not only are more people needed in inspection, but to be able to inspect a wide variety of institutions better qualified people are needed. Additional functions have been suggested for inspectors, so the function of the grading of teachers should be gradually phased out. If teaching is a "profession", then the grading of teachers, which is an archaic hangover from the "payment by results" era in the United Kingdom, should be abolished, as it has been throughout Australia which is where this particular form of the system originated. As the Provincial systems of education begin to grow so they too will develop their own inspectorates. This may be a decade or so away, but what is needed now is a strong National Inspectorate which thinks professionally & not administratively about education. I believe that the proposals I have made would help to achieve this aim, & would assist in raising the standards of education in PNG.

FOOT NOTES.

- (1) Beeby, C. (1967). Improving the Quality of Education, *Papua New Guinea Journal of Education*, Vol. 5, No.1, p. 17 (May)
- (2) Palmer, W.P. "School Inspection: has it Improved Educational Standards in Papua New Guinea?" (Unpublished available from the author).
- (3) Roscoe, G.T. was appointed Director in 1958 in succession to W.C. Groves.
- (4) Hasluck, P., was the Australian Minister of External Territories.
- (5) National Education Strategy. Papua New Guinea Education Plan, Review & Proposals, (I.A,S,E,R Monograph # 9) Chapter 7. p. 61
- (6) Planning the Future of Goroka Teachers' College, (University of Papua New Guinea, 1980)
- (7) Kuhlman, D.W., Attrition Rates of Teachers, paper at Extraordinary Faculty of Education Meeting, Sept. 19, 1980.
- (8) Chan, Sir J., Address to Conference for the Heads of Tertiary Education & Training Institutions, Administrative College, 9 June 80, p. 2.
- (9) For comparison of British & Nigerian systems of School Inspection see:- Palmer W.P., The Changing Role of the Inspectorate: British & Nigerian Perspectives. Unpublished M.Sc dissertation, Oxford University.

(10) Baddely, A.B., (HMI) "The Modern Inspector" (paper given to initial training course for Federal Inspectors of Education at Ibadan University, September, 1973).

(11) *Education in 1949*, Ministry of Education Report (UK), p. 94.

(12) Kogan M., Advisers in Conflict, *Times Educational Supplement*, 5 April 74, No.3071, p. 2.

(13) In the United Kingdom, HMI's report to two different levels of management, whereas, I.e.a. advisers report at only a single level. See:- Kogan M. "Administrative Relationships between School & Outside Institutions" Chapter III. Creativity of the School (C.E.R.I O.E.C.D. 1971 workshop as Estoril, Portugal)

(14) Edmonds, E.L., *The School Inspector*, (Keagen Paul 1962), p. 173 - 175.

(15) Ibid

(16) See: Palmer, W.P., A Brief History of the Federal Inspectorate of Education in Nigeria as an Example of the Growth of Federal Power. (Unpublished article available from the author 1981).

RECOMMENDATIONS

(1) To carry out without delay the major proposals of the Rogers Report on Secondary Teacher Training in Papua New Guinea.

(2) To undertake a program to ensure that textbooks are provided for schools.

(3) To improve the quality of Science equipment at present available in schools.

(4) To facilitate Research into what items of equipment are in short supply in schools.

(5) To attempt to increase the mathematical content of the Science syllabus.

(6) To increase the depth & range of these syllabi.

(7) To provide more In-Service Training for those teachers who need help in adapting to new syllabi.

(8) In the long-term, to have separate Physics, Chemistry & Biology in Provincial Secondary Schools.

(9) To increase government financial help to secondary schools so that students can concentrate on their studies rather than spending too much time in manual labour.

(10) To work towards separate subject examinations of the School Certificate/'O' level type at Grade 10 so that students gain a nationally & internationally recognizable certificate.

(11) To create a larger & more unified inspectorate.

(12) To remove the role of the individual grading of teachers from inspectors.

(13) To give inspectors a more advisory role.

(14) To give inspectors the task of carrying out full formal inspections of schools so that central government is more aware of the detailed problems which schools face.