ABSTRACT
The study attempts to enquire into whether Papua New Guineans see education as a cargo cult, an investment or as an item for consumption. The definitions of cargo cult are examined as are the basic principles of the economics of education.

The main discussion within the study is whether Papua New Guineans see education as a cargo cult, an investment or as an item for consumption? Some years ago European missionaries and settlers used to say that Papua New Guineans sought education simply as a ‘cargo cult’, but the study indicates reasons for modifying this view.

The histories of education and higher education in Papua New Guinea are briefly described, paying particular attention to the role of Goroka Teachers College in the area of secondary teacher education. The unequal distribution of resources between the constituent parts of the University of Papua New Guinea is also discussed. These conflicting cross-cultural perspectives are matters of concern.
Introduction
The life histories of eminent elder statesmen in Papua New Guinea such as Sir John Guise and Michael Somare bear witness to their humble origins and comparatively low initial levels of education. Personality and ambition, combined with further training later on, helped them achieve success. It is now difficult to imagine new leaders achieving success without considerably greater levels of initial education. For a young person, leaving school now, a grade 10 certificate is no longer a passport to modern sector employment.

This year (1986) there will be about 12,000 grade 10 school leavers and probably only about 3000 of these will gain entrance to higher education, further training or employment with major private organizations.

After the Education III Project (a World Bank Project to expand and improve secondary education) is completed in 1988, it is likely that the number of Grade 12 leavers, which has stayed roughly constant for the last five years, will increase by about 25%. This will eventually make grade 12 a basic necessity for higher education or modern sector employment. Perhaps by the turn of the century a degree will be a necessity to obtain employment in modern sector jobs.

Some Definitions
Blaug (1970) considers that Adam Smith laid the foundations of the economics of education as long ago as 1776, but in recent times interest in the subject was revived by Schultz (1961). Since that time the area has excited extreme interest with academic contributions to the subject by Bowen (1963), Bowman (1966), Blaug (1970) and Vaizey (1973), to name only a few of the contributors. Education is seen both as an investment and as a consumable commodity. Decisions as to amounts to be paid for education are made both by individuals and society and both individuals and society generally may benefit from the education so purchased.

It is extremely difficult to know even in the case of an individual, whether a particular course was attempted with a major aim of pleasure (consumption) or to give a qualification for promotion (investment). It is also possible that the final outcome may be the reverse of what was originally intended, so in calculating rates of return it is usual to neglect the consumption element in education and consider it purely as an investment. It is then possible to calculate the increased salary accruing to an individual over his remaining working lifetime, which is the return, as opposed to the cost of the course and the income foregone, which is the investment. Few individuals actually make such cold-
blooded calculations even in developed countries, but where calculations are made there is usually a good return in investment with the rate of return often decreasing as the level of education increases.

The expression ‘cargo cult’ is defined as follows:-

A variety of millenarianism found in New Guinea. Its adherents believe that the valued material goods of Western civilization (the ‘cargo’) are about to be delivered by miraculous means, arriving with the spirits of the dead and ushering in the millennium. The cargo is clearly symbolic of a desired change in the social position of those who await it, and the cults are concerned with power and status, not merely with the magical acquisition of material things. (Bullock and Stallybrass, 1977)

Do Papua New Guineans see education as a cargo cult, an investment or as an item for consumption? Some years ago European missionaries and settlers used to say that Papua New Guineans sought education simply as a ‘cargo cult’. This view was expressed in a more academic style by Essai (1961):-

Dominated by an epistemological system which uses myth and magic to interpret reality, the native regards the European education as the magic key to the white man's secret of success and physical comfort. (Essai, 1961)

‘Cargo Cults’ were common in certain areas of Papua New Guinea such as Buka (Griffin, 1973), Sepik (Steinbauer, 1979) and Madang (Santinella, 1975), but in general they did not exist in the Highlands.

In Melanesia the more common reaction was a great desire or ‘hopeless envy’ of the white man's goods expressed in a cargo cult. But no fully developed cargo cult has appeared in the Highlands. (Brown, 1973)

McNamara (1979) and Roscoe (1959) tell of the Highlanders' desire for the goods which Europeans had and also of their understanding that learning English was necessary for Highlanders to obtain such goods themselves. Rosoe quotes Sivi (a Simbu leader) as saying ‘We want our children to be exactly like you’. Brown, (1971) shows another Simbu leader (called Kondom) as encouraging education as a means of rapid advancement for the Simbu people. However perhaps the ideas of investment in education and education as cargo cult are really not so dissimilar. In the cargo cult myths, it was common for quite ambitious tasks to be undertaken before the promised cargo could be delivered. Such tasks would involve considerable investment of time and energy.

Similarly attendance at a school may be seen as something that has to be done to obtain the Grade 6 or Grade 10 Certificate which, it is hoped, will bring the rewards of a permanent job and the wealth and status attached to such employment. However, if what goes on in school appears to be ‘mumbo jumbo’ which is learned by ‘rote’ without understanding, then the purposes of education are being by-passed and this may well be
seen as form of cargo cult. But, if the purpose of the individual involved is to gain understanding, then the schooling should prove to be a useful investment, because the understanding so generated, will enable the individual to work usefully in formal employment.

The Papua New Guinea education system has espoused the idea of the blending of cultures (Williams, 1935 and 1939) through the triple tasks of maintenance, expurgation and expansion. These ideas were developed further by Groves (1936) and were put into practice by him when he became the first Director of Education. All Papua New Guinean school curricula developed since then have been much affected by this notion. Perhaps the local idea of cargo-cultism and the western ideas of education as an investment have become inextricably woven together. The idea that does not seem commonly held by local people is that of education for personal fulfilment or pleasure (which would be education for consumption in economic terms). Perhaps it is only when learning for personal fulfilment is widespread that the ghosts of cargo cultism will be banished for ever.

The Development of Higher Education
Palmer (1984 and 1985a) has given brief accounts of the development of higher education in Papua New Guinea. Inglis (1980) gave an account of the early development of the University of Papua New Guinea, whilst Rogers (1985) described more recent developments. Botsman (1976) reported on the development of the University of Technology, Lae.

Post-war development of the education system was slow. The implementation of the policy of ‘blending cultures’ in education, combined with financial restraint, helped to prevent the production of an indigenous elite. The aim of the Minister for External Territories was for equality, so he opposed the establishment of institutions which would produce elites (Hasluck, 1976).

By 1960 there were less than 100 persons with secondary education (Good, 1979). It was only in 1964 that the first Papua New Guinean obtained a degree (Hastings, 1971) and to date, for example, there are only two Papua New Guineans with doctoral degrees in Chemistry. Australian policy was knocked out of its complacency in 1962 by the Foot Report of the United Nations and Australia set about rectifying previous neglect. The Currie Commission (1964) recommended the establishment of a University which started in 1967 with 52 male and 5 female students (Meek, 1976). Almost simultaneously, Goroka Teachers College, whose role had been training primary school teachers since the early 1960s, was adapted to train, secondary teachers (Solon 1980).

Australian policy was at this time increasingly looking at a shortening timescale to Papua New Guinean independence, so it was not only education that created new institutions of higher education. There were, in fact, a whole range of institutions for nursing, technical trades, administrators, agriculture and forestry staff etc, each set up on a small scale by different ministries or different religious foundations regardless of expense. The policy of the 1960s could be defined as finding and training an indigenous leadership in every field
often without regard to cost or quality. The result of this policy was to found a higher education system littered with a wide variety of small but expensive training institutions paid for by different government departments (Brown Report (1971) recommended the amalgamation of many of these institutions, but, in general, the report was not implemented. However one amalgamation resulting from the report (that of Goroka Teachers College and the University of Papua New Guinea) did take place on 1st January 1975 (Tinsley, 1977).

Historically there have been considerable tensions between and within institutions of higher learning in Papua New Guinea (Howie-Wills, 1980) describes in particular the tensions in the formation of the University of Technology and also the problems leading up to the amalgamation of Goroka Teachers College with the University of Papua New Guinea; Howie-Willis uses the term ‘a Cinderella complex’ which in some ways still illustrates the relationships between the institutions. Palmer (1985b) shows how that ‘Cinderella’ relationship has continued since the amalgamation.

The system of higher education now.
In a recent article Potter (1986) briefly describes the present chaotic situation:

There are at present 62 institutions of higher education, 57 of which derive all or part of their support from public funds. These institutions come under 19 different departments, ministries or agencies.

Weeks (1986) states that these institutions are estimated to cost about K60 million a year, whilst primary and secondary education together cost K73.8 million. The total number of students in higher education would be about 10,000 (4,000 in Universities) and a total of about 400,000 pupils in primary and secondary education combined 344,616 in 1984 in Community schools and 44,420 in 1984 in provincial high schools (NDOE, 1985).

Rough costs to government per pupil per year are K 154 in community schools, K 357 in secondary schools and costs varying between K 4000 and K 8000 in higher education depending on the institution. There have been numerous suggestions for rationalization, coordination and amalgamation within higher education. For example (NES, 1975).

It is of fundamental importance that the government accept the policy to coordinate higher education and establish appropriate machinery for this.

The Commission for Higher Education (CHE) was established by Act of Parliament in 1983. In 1984 it sponsored a conference to collect opinions on the future of higher education and recently (May 1986) produced its proposals entitled ‘Higher Education plan: a strategy for rationalization 1986-1990’ (CHE, 1986) The 233 page report has received a mixed reception. It was strongly criticised by Grynberg (1986) for its overdependence on a manpower planning approach and for its recommendations to cut out whole sections of higher education which are particularly expensive. The report makes recommendations with the following objectives in view:
Through rationalization, firstly to make higher education more meaningful in terms of manpower requirements and secondly maximise savings through eliminating waste and duplication. In doing so, the average output of tertiary manpower is not to be reduced (CHE, 1986).

The Commission indicates some possible amalgamations of institutions, but hopes these will be achieved through budgetary measures, though there is always the danger, as experience in Australia and New Zealand has shown, that sometimes forced amalgamation leads to increased costs (Potter, 1986).

Pourhosseini (1985) indicated a number of ways in which costs might be saved by increasing the share of costs paid by the students. Of these the phasing out of general scholarships (Natschol pocket money) appears certain, whilst introducing fees for tertiary students for which loans might be available; bonding and additional taxes for graduates all appear as possibilities.

Such changes may well affect the numbers of students participating in certain higher education courses as they will have to make a greater financial investment. Many courses are already undersubscribed and in some cases such policies may simply increase the unit costs of courses which are already expensive. Government could vary the costs of different courses dependent on its needs in particular fields. This would be a sensible policy, but is difficult to implement sensitively in practice. Costs to teachers in training could be reduced either through bonding or simply by keeping fees lower than those in other parts of the University. Increased costs for students might lead to increased enthusiasm and in end to the disruptive strikes that have bedevilled higher education in PNG. The argument for this is the view that ‘People only value what they pay for’. Alternatively higher cost higher education may decrease participation unequally in terms of social or geographical criteria; it may for example reduce the proportion of Highlanders in higher education, as surveys have shown that the parents of a very high proportion of these Highland students are subsistence farmers who would be unable to afford expensive fees. (Palmer, 1985c) (Weeks, 1976).

Higher Education is at present in a position where costs are going to have to be reduced; firstly because the present government appears committed to increased spending on agriculture which will reduce amounts available to education; secondly because within education government sees primary education as the greatest priority; thirdly because cuts in Australian aid will reduce the government's revenue considerably. For these reasons it appears that in future students in higher education will bear a greater proportion of their costs, that continued cuts will be made to the universities which are the biggest spenders, and that staffing, courses and departments' maintenance and research will all face continuing cuts, whilst government will wish to keep student numbers in higher education steady or even to increase them.
Future budgeting priorities: the University versus Goroka Teachers College

Palmer (1983) proved that the cost effectiveness of Goroka Teachers College programs in producing teachers who obtained their diplomas in teaching just two years after leaving high school. These teachers would then save government up to K10,000 a year each (which is the cost of an overseas teacher’s salary). The comparative annual costs per enrolment in 1981 and in 1984 for the different parts of UPNG were:

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<th>1981</th>
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<tr>
<td>Walgani</td>
<td>K6000</td>
<td>K8750</td>
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<tr>
<td>Medical Faculty</td>
<td>K12,500</td>
<td>K12,524</td>
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<td>GTC</td>
<td>K3,800</td>
<td>K5,690</td>
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A more detailed paper (Palmer, (1985b) pointed out major inequalities of provision between the campuses, and it was agreed to provide extra staff, improve housing, offer greater opportunity for promotion and improve student facilities. However the cuts which started to hit the University hard from the beginning of 1986 have come before the new staff who were to equalise the staff distribution between campuses had been appointed, so the situation between the various campuses of UPNG remains unequal. CHE (1986) recommendation 186 states:-

There is a need to concentrate investment in Goroka Teachers' College and raise its staffing levels towards those that apply at UPNG's other campuses and to clarify the status of GTC programs by applying the credit points system.

Recommendation 492 states that:-

Standards of input should be improved by redirecting higher education resources towards both community and secondary teacher training.

Recommendation 4912 states that:-

Extra efforts should be made to improve the quality of teacher training by concentrating investment on Goroka Teachers' College.

From the above quotations, it would seem that an intellectual case for increasing investment in teacher training at Goroka Teachers' College is made. However, because of its uncertain status and unequal representation on many important University committees, it remains doubtful whether equality will be achieved in the short term.

Shortage of funds at the Waigani Campus, which is the centre of administration may be predicted to cause even more severe pressures on staffing and finance at the Goroka campus. This has already happened as higher percentage cuts have already been made at
the Goroka campus than at Waigani or Taurama campuses. Should this pressure continue and should student fees be the same in each campus then it may be predicted that the supply of teachers will diminish. Individually students will make the decision that it is a better investment to get a degree at Waigani with prospects of higher future pay than to obtain a diploma in teaching at Goroka for the less profitable career of teaching.

Perhaps government will bond GTC student teachers but offer the diploma with reduced or low costs to them. Then, as in many different times and cultures, teaching will be the career for upwardly mobile, the intelligent child of indigent parents.

Conclusion
The paper is a broad one and will be concluded with some quotations which bring together the ideas of higher education as a commodity. (Cargo cultism and the blending of cultures). Illich (1973) states:-

The hidden curriculum transforms the explicit curriculum into a commodity which makes its acquisition the securest form of wealth. Knowledge certificates are free from challenge. They withstand sudden changes in fortune. They convert into guaranteed privilege.

Francis (1978) comments on the above:-

The hidden curriculum, Illich’s phrase appears a most effective concept for explaining the ‘cargoistic’ approach to school. …Nothing is further from the mark in Melanesia. First the ‘hidden curriculum’ is not hidden to parents; secondary school has always been valued for its unhidden ‘hidden curriculum.’ …It would appear that locals value school in proportion to the school's success at teaching the ‘hidden curriculum’.

McKinnon (1984), at the Waigani Seminar on higher education in PNG stated that:-

The assumption is now made that Papua New Guinea wants a modern technologically competent society permeated by distinctive Papua New Guinean values. It will do this successfully if it can blend international scientific with equally valid and important PNG cultural knowledge. This philosophical stance has many and varied practical applications ranging from the structure, financing and governance of universities and other higher education to the details of such matters as the level or student allowances, the type of student dormitories or the garden around buildings.

As can be seen from the differing viewpoints of the above quotations, the philosophy and economics of education are becoming increasingly strained bedfellows when considering the future structures of higher education in Papua New Guinea

References


