

# Open And Distance Learning Practice At The Papua New Guinea University Of Technology

*Dr Andrew Chola Nyondo*

Department of Open and Distance Learning  
Papua New Guinea University of Technology  
Papua New Guinea

## ABSTRACT

The author looks at Open and Distance Learning practice at the Papua New Guinea University of Technology. Some issues on socio-economic factors impacting Open and Distance Learning in Papua New Guinea are also discussed.

## INTRODUCTION

The Department of Open and Distance Learning at the Papua New Guinea University of Technology was established in 1993. It started with 49 residential students who came for a six-week programme. It now has more than 7500 enrolments per semester.

The figures below show the enrolment figures over the last 10 years (Bopi, 2003).

YEAR	ENROLMENT	INCREASE	
		No.	%
1993	49	49	100
1994	145	96	196
1995	380	235	162
1996	388	8	2
1997	568	180	46
1998	618	50	9
1999	802	184	30
2000	2495	1693	211
2001	5272	2777	111
2002	7038	1766	33
2003	7500	462	7
TOTAL	25255		

Enrolment here refers to the number of courses that students enrolled in, except for 1993, where 49 was the actual number of students.

The Department of Open and Distance Learning (DODL) started by offering courses at the matriculation level in Mathematics, English, Biology, Chemistry and Physics. Later on a Diploma in Commerce programme (majoring in Accounting) was also developed.

The university established the “Open and Distance Learning Committee” in 1994, to oversee all distance learning activities in the university. The terms of reference are:

- To promote the development of Distance Education programmes at the University.
- To input to the plan to develop and foster skill development in areas related to Distance Education.
- To consider issues pertaining to the upgrading of existing and development of new Distance Education programmes, and to inform Academic Board as necessary.
- To foster inter-departmental co-operation and working relationships across all aspects of the University’s Distance Education programmes.

The committee meets at least twice a semester. This is an academic watch-dog that ensures that all distance learning programmes that are developed satisfy the standards set by the university and that they are run effectively and efficiently.

In this paper, we look at Open and Distance Learning practice at the Papua New Guinea University of Technology and discuss some pertinent issues.

## **PROGRAMMES**

The programmes on offer in DODL are mainly print-based. Computer Laboratories are currently being set up at selected places. At these centres, the Internet will be used in delivering some of the distance education programmes. The new set up with computer laboratories is being referred to as the **i-College** – short for internet college.

Unfortunately, all these centres are in big cities and none in rural areas where the majority of the population reside. The population distribution in Papua New Guinea is 15.4% urban based and 84.6% rural based (National Statistical Office, 2001). Reaching students in rural areas has always been a trial.

The geographic distribution of the population introduces factors that have strong influence into the practice of distance education in the country. Since majority of the population is rural based, we cannot take advantage of most of the benefits brought about by advances in educational and telecommunications technologies (Nyondo, 2003). Access to modern technology is limited in rural areas. So how do we reach the rural areas?

The Papua New Guinea University of Technology offers distance education programmes in the following areas:

Matriculation Programme: a student has to complete eight subjects from Biology I & II, Chemistry I & II, English I & II, Physics I & II and Mathematics I & II to qualify for a Matriculation Certificate.

Diploma in Commerce majoring in Accounting.

Diploma in Mathematics for Teachers (Secondary).

More programmes are currently under development. These are:

Diploma in Human Resource Management.

Diploma in Business Administration.

Diploma in Marketing.

Graduate Diploma in Information Management Systems.

Diploma in Mathematics for Teachers (Primary).

Diploma in Integrated Science (Secondary).

Diploma in Integrated Science (Primary).

All these programmes have been designed and are being developed in-house by Project Teams from relevant disciplines.

## **CENTRES AND MODES OF DELIVERY**

The Modes of Delivery of our distance education programmes are varied depending on location of centres and student numbers. The modes of delivery in operation are itemised below.

**Tutorials:** are offered at Taraka Main Campus to Lae-based students. These tutorials are offered after hours from 16:00 Hrs to 18:00 Hrs from Monday to Friday. The DODL is based in Lae.

**Distance Mode:** for those students who reside outside Lae in places where there are no established centres, they have to complete their programmes through the distance mode only. Tutorials are not offered in this case.

**Lahara Sessions:** six-week residential courses are offered at the end of each year. Laboratory based courses are offered this time. In some centres, arrangements have been made with local schools and colleges to facilitate the running of laboratory based courses.

**Audioconferencing in Manus:** we have this project set-up in Manus. It is a joint project with the Provincial Government of the People of Manus. The plan was for a Lecturer to sit in a studio in Lae and teach students simultaneously at Lorengau, Kari and Baluan Island centres.

**Evangelical Church of Manus High School Centre:** The Matriculation programme is offered full time.

**Popondetta General Hospital Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Markham Valley High School Centre:** The Matriculation programme is offered. Tutorials are offered on Saturdays. We use school premises and these are available to us during weekends only.

**Bulolo Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Bugandi Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Tusub Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Goroka Secondary School Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Mt Hagen Secondary School Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Gaulim Teachers College Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Nalu College (Aitape) Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Tabubil (SMCLC) Study Centre:** The Matriculation programme is offered. Tutorials are given during weekdays.

**Port Moresby Institute of Matriculation Studies:** The Matriculation programme is offered full time.

Establishment of Study Centres follows strict guidelines. The Head of the Department of Open and Distance Learning with some members of the Open and Distance Learning Committee conduct site inspection to determine availability resources and equipment to run laboratory based programmes. A full report is submitted to the Open and Distance Learning Committee which then decides whether to approve study centre status or not.

Currently, all programmes are run entirely by part-time staff, although some of them are Papua New Guinea University of Technology staff from other relevant departments. The part-timers are paid an hourly rate for their work. Each centre has a Coordinator. The Coordinator facilitates the appointment of tutors and is also responsible for all administration activities at the centre.

A lack of full-time staff also means that it is not always possible to have timely revision of courses or introduce new ones. The reliance on part-timers also means that student support is also limited to certain working hours of the day only. A well-designed Learner Support System is a must for effective learning by (distance) students. Student support at the Papua New Guinea University of Technology is discussed in detail in Nyondo (2002).

The Department of Open and Distance Learning owns the programmes. Full time staff in the university are not obliged to teach in the distance mode. Plans are under way to make the internal departments own the programmes and the Department of Open and Distance Learning to play a role of facilitator.

The way the set-up is organised at the moment makes it hard to find staff to run all the programmes.

The programmes are all print-based. The department embarked on a project this year to use the Internet as one of its delivery modes. The department has set up what it is calling the i-College. The i-College is a computer based teaching and learning delivery project principally established to enable and actuate Distance Education programmes via the internet (Bopi, 2003).

Through i-College internet technology will be used to deliver and make available distance education programme course materials.

## **BACKGROUND AND FACTORS AFFECTING OUR DISTANCE STUDENTS' LEARNING**

Our students come from various backgrounds. The rural to urban distribution of population influences the manner in which our distance programmes are delivered. The main factors affecting the provisions of distance education to the majority of the student population are students' ability to afford our fees, home environment, community attitude to education and other social factors.

At the matriculation level we have two categories of students. Those who come to matriculation for the first time and those who have already gone through the process but come to us so that they can upgrade their grades. Most of these have ambitions of advancing to the diploma and degree levels. Whereas the majority of our Matriculation students are unemployed the majority of our Diploma in Commerce students are in employment

There are various factors affecting our students' learning at the Department of Open and Distance Learning here at the Papua New Guinea University of Technology. Some of the factors are beyond our control. We discuss some of these below.

### **Home and study environment**

The majority of our students live in rural communities where the best method of contact is the postal system. As the postal service in the country is very slow, sending timely feedback to students is not possible. How do we support these students? Some of these rural-based students live in isolated communities with no access to telephones . Sometimes the nearest telephone is as far as 25-50 kilometres away.

The majority of the homes of our students have no access to electricity. So studying at night is a big task. Most students will have chores to do during the course of the day. And night time is the only time they are likely to be free to study.

Students who live in rural areas, apart from a lack of electrification, will also lack basic learning support facilities such as libraries and peers with whom they can discuss their learning experiences. Apart from their own study difficulties, most of them will also be expected to contribute to the economic welfare of the family. Finding time for private study in such cases is an enormous task for anybody.

### **Tuition fees**

The financial burden of coping with the tuition fees is too much for most families. And unfortunately, there are no Government funded scholarships for distance education at the moment. There is a National Scholarship scheme established only for full time students in the universities.

### **Learner characteristics**

We can not just look at the socio-economic factors affecting our students' learning in isolation. Individual learner characteristics also impinge on their learning capabilities. Campbel (1992) points out that elements such as age, maturity, and learning styles have been identified as characteristics which can impact the learning process of the distant student.

Mature aged students may have family responsibilities which will limit the time available for study. If they are working the only time available for study is after work. But, this is also the time they may have to share with family responsibilities. Individual motivation for study and reasons enrolled in the first place will determine how far a student will go even when support is not available.

Other drawbacks have been discussed fully in Nyondo (1999a, 1999b, 2001). These issues involve selection of educational media and socio-economic factors that influence the design and delivery of our distance learning programmes.

For example, in designing an effective Learner Support System, the Institution should be familiar with the students' home and community environments, community's attitudes to education, availability of peers that can render academic assistance and a lot more other related issues.

### **Socio-economic issues**

In 1998 and 2000, Nyondo & Koigiri (1998) conducted surveys to determine what facilities were available in our students homes. The design of the questionnaire and the processing of the results were done using the SES subject evaluation software that was designed for the development and analysis of student questionnaires.

SES was produced and copyrighted by Griffith Institute for Higher Education, Griffith University, Nathan, Brisbane, Australia. It comes with an accompanying resource text by Armstrong and Conrad (1995).

The questionnaires were distributed to more than 250 students registered in the Department of Open and Distance Learning. We tried to get a feel of what types of technology was available in peoples' homes that could be utilised in the delivery of distance learning materials to students homes or communities.

In our survey we looked at the availability of electricity, television, radio, personal computers and a room for private study. The results for the two surveys are given in the table below.

<b>Year</b>	<b>Electricity</b>	<b>Television</b>	<b>Radio</b>	<b>Personal Computer</b>	<b>A room for Study</b>
<b>1998</b>	62%	44%	60%	6%	48%
<b>2000</b>	59.4%	50.4%	65.4%	2.3%	57.9%

For example, when we conducted the survey in 1998, we found that 62% of the students had electricity in their homes whereas in 2000 this number was found to be 59.4%. Similarly, 44% had a television in their home in 1998 and 50.4% of the respondents had a television in their home in 2000. The lowest percent was the proportion of students that had access to a personal computer, 6% in 1998 and only 2.3% in 2000.

What observations can we make about the accessibility of different technologies to our students? What media other than print should be chosen for delivery of distance education in the country? If one had to go by the results of the survey, one would conclude that radio-based programmes would have the highest audience.

## **CONCLUSION**

Distance Education at the Papua New Guinea University of Technology is still in its infancy. Moves are being made to expand to other delivery technologies other than print. The increase in student numbers and the demand for more programmes will make it imperative that we move abreast with advances in Information and Communication Technologies in the delivery of our distance education programmes.

## **REFERENCES**

Armstrong, J. & Conrad, L. (1995). *Subject Evaluation: A Resource Book for Improving Learning and Teaching*, Published by Griffith Institute for Higher Education, Griffith University, Brisbane, Australia.

Bopi, G. I. (1993). *Annual Report*. Department of Open and Distance Learning, Papua New Guinea University of Technology, Lae.

Campbell, B.C. (1992). Changing perceptions of learners and learning at a distance: a review of selected research. *DEOSNEWS*, 2(4).

National Statistical Office (2001). Census 2000 figures. *Post Courier*, Thursday 26<sup>th</sup> July 2001, pp. 1-2.



Nyondo, A. C. (2003). Distance Education in Papua New Guinea, *Asian Journal of Distance Education*, Vol. 1, No. 1, 99 – 103.

Nyondo, A. C. (2002). Designing an Effective Learner Support System. *University News*, A weekly Journal of Higher Education, Association of Indian Universities, Vol. 40, No. 4, January 28 - February 3, 38 - 43.

Nyondo, A. C. (2001). Appropriate Educational Media Choices in Open and Distance Learning. *Proceedings of the Open and Distance Learning Association of Australia 15<sup>th</sup> Biennial Forum*, 24-27 September 2001, Sydney, Australia, © OTEN-DE/ODLAA CD-ROM, ISBN: 0-9579398-0-9.

Nyondo, A. C. (1999a). *Educational Media in Open and Distance Learning: The Papua New Guinea Experience*. *Indian Journal of Open Learning*, Vol. 8., No. 1, 103 – 108.

Nyondo, A. C. (1999b). *Socio-economic Factors affecting Distance Learning in Papua New Guinea*. *Proceedings of the PAN Commonwealth Forum on Open Learning*, 1- 5 March, Brunei Darussalam, N - Z.

Nyondo, A. C. & Koigiri, A. J. (1998). Open and Distance Learning Programmes at the Papua New Guinea University of Technology: A Student Survey, *Departmental Working Paper*, Department of Open and Distance Learning, Papua New Guinea University of Technology, Lae, Papua New Guinea.