# The Role of Open and Distance Learning in Skills Development: A Papua New Guinean Case Study

Theme: Skills Development, Sub Theme: Skills Development for National Development

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# **INTRODUCTION**

A skills based society is one that will help it to move forward and progress in development. Skills come hand in hand with Knowledge – i.e. new skills are always needed to complement new knowledge acquired. Open and Distance Learning (ODL) is a relatively new concept in Papua New Guinea (PNG) as it is a developing country. ODL does however, play an important role in disseminating skills to the population that do not have the opportunity to further their education at tertiary/ higher learning institutions. A variety of skills are taught in formal or traditional classroom settings and many others are taught in the societies or village communities and settings. The primary aim of this research is to look into the roles of ODL in the dissemination of skills to the population. The focus is on the "University of Papua New Guinea Open College and its Certificate in Tertiary and Community Studies as a tool for skills development through ODL. In addition this paper discusses the importance of Indigenous Knowledge Systems (IKS) and how IKSs influence learners' prior learning of skills.

## **ROLE OF ODL IN PAPUA NEW GUINEA**

The Government of PNG acknowledges ODL as being an agent for change as it provides more access to educational opportunities for its citizens. PNG's National Strategic Plan which is now known as Vision 2050 identifies Human Capital Development, Gender, Youth and People Empowerment as one of its Seven Strategic Focus areas. Under this Strategic Focus Area and in relation to ODL, PNG Vision 2050 envisions 'Access for all education levels through open, distance and flexible education should be improved and increased.'(Vision 2050:2009, pp. 34). With the current education reforms in the country, there is an increase in the number of 'drop outs' – or students that who do not perform up to expected levels to continue their secondary education or continue to tertiary institutions and are left out of the mainstream educational institutions. There are also many others who meet the requirements to continue but are unable to immediately do so due to financial constraints. PNG ODL institutions are therefore able to fill in the gaps for these disadvantaged group. ODL institutions are greatly challenged by this vision to improve and increase their delivery to enable more citizens to gain basic primary, secondary and tertiary education.

## **ODL** at the University of Papua New Guinea

The University of Papua New Guinea (UPNG) is the largest and most well established dual mode institution in the country. It is also nationally the leading university in terms of the provision of ODL programs. The UPNG Open College is the section delegated with the responsibility of administering the University's ODL programs. It employs international practices in developing course materials and facilitates learning programs through nineteen learning centres and other smaller sub centres throughout the country.

The University of Papua New Guinea's Strategic Plan 2008 – 2017 focuses on Open, Distance and Flexible Learning in its Third (3<sup>rd</sup>) Strategic Result Area of University Activities. The second objective (3.2) under this Strategic Result Area is for the UPNG Open College to "Consolidate and expand the development and delivery of skill and community based education and training programs". (UPNG STRATEGIC PLAN 2008 – 2017:2008, pp. 7). This is a vital area to be looked at and again reflects what has also been stressed in PNG's Vision 2050. In addition, this is also in line with the global Millenium Development Goals and the Dakar Educational for All Goals. The UPNG Open College is faced with a greatly challenging task to endeavour to meet up to this objective. It offers two categories of courses: 1. Degree/Diploma Courses which belong to and are coordinated by lecturers from UPNG Schools and

2. Certificate in Tertiary and Community Studies (CTCS) Courses which belong to and are coordinated by the UPNG Open College. The following section aims to outline the structure of the CTCS program and highlight its the strengths with regards to the dissemination of skills to members of the community.

## THE CERTIFICATE IN TERTIARY AND COMMUNITY STUDIES

The Certificate in Tertiary and Community Studies (CTCS) program was developed in 2001 to replace the former Matriculation Program which existed before the establishment of the UPNG Open College. The Matriculation Program targeted grade ten school leavers intending to complete an equivalent to years eleven and twelve to enable them to gain admission into higher learning institutions. Its focus was entirely on the core academic subjects but, it did not however cater for the needs of those who wanted to go back into their communities to make a life there or gain self employment.

#### **CTCS Course Structure**

The CTCS Course Structure comprises eight pre-requisite courses (Literacy 1, 2, 3, Numeracy 1, 2, 3, Life Skills and Civics and Development Studies) which need to be taken along with five others in order for students to qualify for the certificate. All materials for the CTCS program are designed to suit distance learners. They are self instructional print based materials with one course Literacy 1 containing an audio cassette for its listening exercises. The following table presents a list of the courses offered as part of the CTCS program

Literacy 1 Literacy 2

Literacy 3 Numeracy 1

Numeracy 2

Numeracy 3

Life Skills

Civics and Development Studies

Introduction to Economics

Introduction to Chemistry

Introduction to Physics

Table 1: CTCS Courses

Development of Science and Technology Business Skills 1

Business Skills 1
Business Skills 2

Agriculture Management

Crop Management

Animal Production

Introduction to Computing

Introduction to Tourism

Plantation Management

HIV and AIDS (to be offered)

The Executive Director of the UPNG Open College, asserts that the specific aims of the CTCS Program are to:

- Prepare students with literacy and numeracy skills and subject knowledge that is appropriate to lifelong learning:
- · Prepare students to cope with academic studies in higher educational institutions; and
- Help students upgrade their skills for gainful employment or a return to self employment within their community.

(Mannan:2009,pp. 160)

Students are able to follow a pathway according to their plans for future employment or upgrading of skills and knowledge to become useful members of their communities. UPNG has phased out the matriculation program because it focused only on academic courses and did not address the needs of citizens who were preparing to go back to their societies. How could these citizens become useful members of society when they are not equipped or enriched with useful skills and knowledge relating to the day to day living in their societies?

## Partnerships and collaborations

The CTCS Programs are owned by the UPNG Open College but due to the lack of content experts employed in the initial establishment of the Open College many of these courses have been written in partnership with other Institutions or Schools of the University. For example, AusAid consultants (Literacy and Numeracy Courses), University of Vudal Lecturers

(Agriculture Courses), Port Moresby National High School (Business Skills Courses, Introduction to Economics and Introduction to Physics), UPNG School of Natural and Physical Sciences (Introduction to Biology and Introduction to Chemistry).

The UPNG Open College continues to work in partnership and collaboration with these schools and institutions to update course materials and assignments when necessary.

## **SKILLS IDENTIFIED IN CTCS COURSES**

All these courses although listed as 'academic' and 'skills based' in actual fact contain specific skills to be disseminated to learners.

## Skills in Language and Literacy

Literacy 1, 2 and 3 provide learners with a good grounding of the English Language and Literature including reading, writing, speaking and listening. There is a great deal of attention given to writing skills in Literacy 3 as these subjects are not thoroughly presented in the conventional school system these days with the current education reforms based on Outcome Based Education. Learners are privileged to complete these three prerequisite courses both in tertiary institutions and in the communities. The official language of instruction in Papua New Guinea is still English, therefore it is good for all citizens to have a good grasp of the language, whether they intend to continue for further studies at tertiary institutions or to simply fit into the society and effectively communicate and keep abreast with current issues.

## **Skills in Mathematics**

Numeracy 1, 2 and 3 provide learners with the most basic numeracy skills – addition and subtraction to complex mathematical formulas. The mathematics covered here is however still not at the level to allow for learners' entry into the science foundation year at UPNG.

# Skills in Social Issues Affecting Daily Lives

Life Skills and Civics and Development Studies present learners with skills in understanding daily social issues affecting life. Such understanding enables learners to look at issues ,more deeply and critically than they appear.

## Skills in the Natural and Physical Sciences

The courses Development of Science and Technology, Introduction to Chemistry, Introduction to Physics, Introduction to Biology are science related courses that offer learners basic knowledge and skills in the three specific sciences – Chemistry, Physics and Biology and introduction to scientific theories.

The Introduction to Computing Course is also a useful course as it provides necessary skills required to operate a computer, identify its parts and gain proficiency in Microsoft Office Applications.

#### **Skills in Business**

CTCS Courses Business Skills 1 and 2 offer learners very valuable skills and knowledge in operating small business. They cover areas such as business plans, market surveys, business registration, basic accounting practices and other business related areas. These are quite useful to those wanting to go back to their societies and set up small business projects for their livelihoods.

# **Skills in Agriculture**

There are three CTCS Agriculture Courses – Agriculture Management, Crop Production and Animal Production. These are also valuable courses that can enable learners to effectively plant crops, raise livestock and manage agricultural projects. Skills in Computing

## Skills in the Tourism Industry

The CTCS Course 'Introduction to Tourism' equips learners with knowledge and skills in the area of Tourism. It begins by introducing the concept of tourism and how it can affect their day to day living. It also looks at new concepts in Papua New Guinea like Eco-Tourism, how to communicate with tourists, pricing tourism products and setting up tourism projects.

#### INCORPORATING INDIGENOUS KNOWLEDGE AND SKILLS

Many of us belong to non – Western societies. We have our own indigenous knowledge of which we may not appreciate or realise the importance of. According to the Wikipedia Free Encyclopedia, 'Indigenous Knowledge encompasses the wisdom, knowledge and teachings of communities. In many cases, indigenous knowledge has been orally passed for generations from person to person.' Papua New Guinean traditional societies have thrived for centuries on their indigenous knowledge and beliefs in the spiritual and supernatural world.

## Indigenous Knowledge as Prior Knowledge

Indigenous Knowledge needs to be acknowledged and researched into in the development and design stages of skills based courses. In Papua New Guinea, approximately 70 % of the population live in semi urban and rural areas. These people are therefore well equipped with their indigenous knowledge and skills.

The CTCS courses are the most marketable courses of the UPNG Open College and students are enrolled in huge numbers in all centres throughout the country. With its success in reaching out to the masses in geographically separated locations, its courses need to be revisited to reflect on the indigenous knowledge that learners may bring with them. The following courses are the most obvious in which learners would possibly bring with them indigenous knowledge as prior knowledge of concepts.

#### 1. Literacy and Numeracy Courses

The CTCS Literacy courses have actually reflected on indigenous knowledge in some units on folklore and legends. This is a positive sign as learners can appreciate that their indigenous knowledge of folklore and legends is an important aspect of their lives and not just a waste of time. There are however other features of traditional languages that can be incorporated into the courses and related to the current units.

Some elements of mathematics exist in traditional communities, especially to do with counting and measurements. For example, certain occasions require the payment or exchange of traditional monetary items and food. Often this means meeting certain specified amounts of these items.

# 2. Life Skills, Civics & Development Studies and HIV and AIDS

Social issues affecting daily living are a major concern of traditional communities. Traditional norms and values are often fixed in traditional societies and governed by indigenous knowledge. By bringing in this prior knowledge, learners may see the world differently to what is presented in these courses. It may however help them to learn to understand and accept other ways of perceiving the world and doing things.

# 3. Business Skills

'Business' may seem a new and introduced concept to learners at first, but indigenous knowledge does in many cases include the concept of exchange systems such as 'trade or barter'. This does not feature currently in the units but many learners would already have some perception of this concept in general from their indigenous knowledge.

# 4. Agricultural Courses

Agriculture is said to be the backbone of Papua New Guineans as all people in rural areas rely on subsistence farming as a means of sustaining their livelihood. The three CTCS Agriculture Courses are important skills based courses and learners enrolling in this course can greatly enrich what they already know from their indigenous knowledge (traditional gardening techniques and livestock rearing).

## The Challenge of Course Developers

In identifying major skills that learners would be likely to have gained from prior learning through indigenous knowledge, these four areas are seen to be the most obvious. The challenge is now on course content writers and instructional designers at the UPNG Open College to embrace and harness this indigenous knowledge that learners are bringing with them. Course materials need to be designed to acknowledge the prior learning from indigenous knowledge and to complement this prior knowledge in the learning materials.

Currently course materials provide valuable information and skills without acknowledging assumed prior knowledge in the areas and contextualizing materials to reflect indigenous knowledge.

## CONCLUSION

The CTCS program of the UPNG Open College is playing an important role in the dissemination of skills and knowledge in the most fundamental areas through ODL. Since it has the advantage of reaching out to learners scattered throughout this geographically dispersed nation, it plays a vital contribution towards the development of this nation by equipping citizens with valuable knowledge and skills that will help them to improve and sustain their livelihoods. By tapping into the indigenous knowledge of learners in its course subjects, the Open College will create learning materials that will greatly enhance and complement their indigenous knowledge and prior learning.

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