

QUALITY ASSURANCE
TOOLKIT
FOR OPEN SCHOOLS

COMMONWEALTH *of* LEARNING



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The Commonwealth of Learning (COL) is an intergovernmental organisation created by Commonwealth Heads of Government to encourage the development and sharing of open learning and distance education knowledge, resources and technologies.

 Commonwealth of Learning, 2010

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Quality Assurance Toolkit for Open Schools

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List of Acronyms

AIDS: Acquired Immune Deficiency Syndrome
BGCSE: Botswana General Certificate of Secondary Education
BOCODOL: Botswana College of Distance and Open Learning
CBM: Certificate in Business Management
CECD: Certificate in Early Childhood Development
CED: Certificate in Education for Development
CLGS: Certificate in Local Government Studies
COL: Commonwealth of Learning
CSC: Community Study Centre
CYP: Commonwealth Diploma in Youth Development Work
DEASA: Distance Education Association of Southern Africa
DED: Diploma in Education for Development
DNEA: Directorate of National Examinations and Assessment
DNFE: Department of Non-formal Education
ECC: English Communication Course
ECD: Early Childhood Development
HIV: Human Immunodeficiency Virus
ICDL: International Computer Driving Licence
ICT: Information Communication Technology
JC: Junior Certificate
JSC: Junior Secondary Certificate
M&E: Monitoring and Evaluation

MoE: Ministry of Education
NADEOSA: National Association of Distance Education and Open Learning in South Africa
NAMCOL: Namibian College of Open Learning
NEACB: National Examinations, Assessment and Certification Board
NIED: National Institute for Educational Development
NOLNet: Namibian Open Learning Network Trust
NQA: Namibia Qualifications Authority
NQF: National Qualifications Framework
NSSC(O): Namibia Senior Secondary Certificate (Ordinary Level)
ODL: Open and Distance Learning
ODL: Open and Distance Learning
PMD: Programmes and Materials Development
PP: Professional Programmes
QA: Quality Assurance
RLA: Remote Learner Advisor
RNPE: Revised National Policy on Education
SAIDE: South African Institute for Distance Education
SE: Secondary Education
SMS: Short Message Service
UNAM: University of Namibia
UNESCO: United Nations Educational, Scientific and Cultural Organization
UNICEF: United Nations Children's Fund

Foreword

The mission of the Commonwealth of Learning is summarised in the phrase 'Learning for Development'. Being a small organisation, we focus our work on the most pressing development imperatives in education, training and learning generally. In formal education we consider that the greatest contemporary challenge is coping with the 'secondary surge'; that is, the tidal wave of young people now seeking to continue their education beyond primary school. The numbers are huge. Binder (2006) estimated that there were some 400 million children between the ages of 12 and 17 who were not in school.

Since the 1990 Jomtien Conference, the educational focus of development agencies and many national governments has been the campaign for Universal Primary Education (UPE). Ironically, although the 2000 Dakar Forum on Education for All (EFA) agreed on six goals covering different facets of education, the follow-up to Dakar actually reinforced the emphasis on UPE. 'Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes' was one of the six EFA goals, but only UPE and gender equity figured in the broader Millennium Development Goals (MDGs) that, after 2000, guided the work of the World Bank in particular.

Such was development agencies' concentration on the primacy of the UPE campaign that they gave little thought to the implications of its eventual success. Happily, the campaign is now achieving its goals in most countries, although there will still be tens of millions of children not receiving primary schooling by the target date of 2015, particularly in a few Commonwealth countries. Nevertheless, primary schooling has expanded so dramatically that many developing countries have attained levels of schooling in a decade that took today's richer countries a century to achieve.

The secondary surge is the consequence of this success and poses a massive challenge. It is now vital to maximise the numbers of children, particularly girls, who

continue to secondary schooling. Women with secondary education have, on average, 1.5 fewer children than those who do not (Cohen, 2008), so providing secondary schooling for girls will curb the global population growth that is the key driver of climate change.

However, Lewin (2008) has shown that many developing countries will never achieve universal secondary education by conventional schooling alone because that model is too expensive. In the OECD countries the unit costs of secondary education are generally less than double those at primary, but in most of Africa ratios range from 1:3 to 1:5 or even higher. This means that the inevitably slow expansion of conventional secondary schooling must be complemented by all feasible and efficient alternatives. Reviewing these, notably private schooling for the poor, the use of information and communications technology (ICTs), and open schools, leads to the conclusion that open schooling is the most cost-effective alternative (Daniel, 2010).

Although open schooling has a surprisingly long history in countries both rich and poor, governments have until recently accorded it low status as merely a stop-gap measure. This is now changing for several reasons. The secondary surge has sparked a search for alternatives, the examples of successful open schools are multiplying and the link between open and distance learning (ODL) and ICTs has given ODL a new glamour.

The global open schooling community must not muff this opportunity. Because academics have the habit of scholarship and more time to pursue it, ODL in higher education has been researched much more thoroughly than open schooling. Similarly, many governments have put in place sophisticated quality assurance arrangements for colleges and universities while taking a more rudimentary approach to assessing the effectiveness of their schools.

Given the importance of open schooling in addressing the pressing challenge of the secondary surge, it is essential that institutions and governments pay close attention to quality in this burgeoning mode of education. First, assuring the quality of open schools is important because of their potential to attract large numbers of pupils and account for a major part of the secondary system. Namibia's NAMCOL, for example, accounts for nearly half the country's secondary enrolments.

Second, as we have argued elsewhere, open schools can be an important catalyst for the development of the national education system as a whole if they are conceived as part of an educational ecosystem for the 21st century that includes the Ministry of Education, the regular school system, the teacher education institutions and the wider community (Daniel, 2010, p. 102). On this principle, quality open schooling can help to raise the quality of entire school systems.

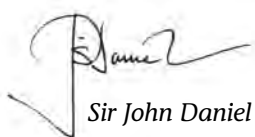
For these reasons I welcome this toolkit and congratulate Frances Ferreira and her colleagues on producing such a useful compendium of practice. At COL we believe that building a quality culture into an institution is a better guarantor of effectiveness than mere compliance with external requirements. But a quality culture is not something vague and intangible. Its elements can be made explicit and this toolkit does that. Descriptions of quality assurance systems can easily become arcane abstractions, but this document makes sense of the jargon and roots the quality discourse in reality by drawing lessons from a range of case studies.

Assuring quality should involve all internal and external stakeholders. This is why the Review and Improvement Model that COL has developed for higher education (COL-RIM) starts by asking all staff how they perceive the quality of operations in their own departments. Furthermore, those who work in an area often have the best ideas about how its quality can be improved – and improving quality, rather than trying to make judgements about it, is the main aim of quality assurance.

To assist institutions in enhancing the quality of different elements of open schooling this toolkit gives benchmarks in some 13 areas, stressing nevertheless that quality is holistic. The very best learning material is of little use to pupils unless it reaches them in a timely manner and is accompanied by effective support and advice. It places quality assurance in a global perspective and will help those in any particular open school to see their work as part of a significant worldwide movement. As technology advances, open schools can incorporate new approaches, such as eLearning and Open Educational Resources, into their teaching and learning systems. While each technology poses its own special challenge of quality assurance, its quality must always be seen in the context of the overall quality of the open school.

A common definition of quality is ‘fitness for purpose’. The UK Open University expanded this definition to ‘fitness for purpose at minimum cost to society’. Open schooling is part of the revolution that technology can bring to education by increasing access, raising quality and reducing cost all at the same time. Cost-effectiveness is a vital element of quality for open schools if they are to be true to their mission of being open to all.

I am proud that COL has produced this toolkit and I hope that it will prove valuable to both open and conventional schools across the Commonwealth and beyond.



Sir John Daniel

President & CEO, Commonwealth of Learning

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Frances Ferreira initiated the creation of this toolkit and in collaboration with SAIDE guided it through to its final stages.

In addition to the contributors who are mentioned on page 205, COL sincerely appreciates and acknowledges the efforts of the following individuals and institutions without whose contribution this project would not have been possible:

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As always, thanks go to Sir John Daniel for his unerring support for and commitment to the Commonwealth of Learning.

Overview of the Toolkit

This toolkit was created to provide guidance to people working in open schools to develop and maintain sound quality assurance systems in their institutions. It was developed because open schooling is becoming more and more prevalent in most developing countries and is enrolling increasing numbers of learners, particularly at secondary school level, but quality assurance is still very limited. This situation is worsened by the fact that most of the people working in the open schools have come from the conventional educational system and therefore have limited experience in Open and Distance Learning (ODL) generally. There is an urgent need to provide support for these people in terms of helping them to understand what good ODL is all about, to put in place appropriate structures and systems, and to manage the key dimensions of ODL delivery. This toolkit is one way of providing much-needed support as they develop quality assurance systems that will be the foundation of a culture of continual improvement in open schooling.

When we developed this toolkit we assumed that the different open schools already have some standard of quality and some ways of quality assuring their activities. From experience, we know that in most instances the quality assurance activities of most providers are implicit and subjective, to the extent that they are neither regulated by clear policies nor clearly documented. Bits and pieces of the unwritten quality assurance policies of some institutions can be found in documents like mission statements and strategic plans, but the danger with this kind of practice is that key dimensions of quality assurance tend to get overshadowed by other activities and so fail to attract the attention and budgets they deserve. We hope that this toolkit will benefit open schooling by making institutions' quality assurance practices as explicit and as systematised as possible, with quality assurance policies clearly expressed and communicated amongst institutional stakeholders.

STRUCTURE OF THE TOOLKIT

This toolkit consists of four main sections: chapter one deals with theoretical aspects of open schooling and quality assurance, chapter two discusses quality criteria and their components, chapter three is made up of case studies from different countries that illustrate how the different quality criteria are applied, and chapter four highlights important lessons drawn from the toolkit, especially the different case studies.

Chapter One: Theoretical Perspectives

This chapter provides a rationale for maintaining good quality assurance systems in open schools. It deals with conceptual issues relating to quality and quality assurance and underscores the importance of regulating quality assurance in open schooling through policy, at both national and institutional levels. The chapter highlights some of the common approaches used in quality assuring educational provision in general, and gives guiding principles for managing sound quality assurance systems in open schools: they should be developed through consultative processes, they should be non-bureaucratic and non-instrumentalist, they should be well aligned with the mission of the providing institution, they should be contextualised and they should be an integral aspect of institutional planning.

Chapter Two: Quality Criteria

This chapter focuses on criteria and discusses a whole area of activities where quality should be assured for an institution to support a quality culture. These criteria are further split into their constituent elements when put into practice. Presenting the criteria in this comprehensive style means that an institution can easily use them as benchmarks for self-reviews. The criteria point to specific areas that need attention when it comes to quality monitoring for quality improvement. However, the reader should note that although we define 13 distinct criteria, in practice there is much overlap between and amongst them and, depending on the mission of the provider, additional criteria can always be defined. In principle, an

institution should not work with too many quality criteria. However, it is important to remember that all the criteria contribute to the quality of both the service offered to the learner and the (academic) transformation that occurs as a result of the teaching-learning processes.

Chapter Three: Case Studies

The case studies are included to demonstrate how some of the defined quality criteria are put into practice in some of the existing open schools, and the attendant challenges that arise. Due to space restrictions, the case studies do not aim to illustrate every aspect of a given criterion; rather they aim at exemplifying only a limited number of such elements. We also felt that it was not necessary to illustrate all the 13 criteria defined in chapter two of this toolkit; we expect that seeing how the eight chosen criteria are illustrated through the nine case studies will make clear the application of the rest.

Chapter Four: Conclusion

The final chapter of the toolkit summarises the key lessons drawn from the entirety of the toolkit, particularly the case studies. The importance of home-grown quality assurance systems that also take into account international trends is emphasised. Whilst we should learn from the experiences of other countries, local context matters when it comes to quality assurance issues. However, a global awareness is also necessary primarily because of the porous nature of institutional and national boundaries in terms of educational provision and competition. This is particularly so given the advent of Information Communication Technologies (ICTs) in education. Our central message to open schools as educational enterprises is that in developing and nurturing their quality assurance arrangements, they need to think globally and act locally.

HOW TO USE THIS TOOLKIT

The field of quality assurance is filled with very confusing and contested concepts. Unless there is shared understanding of the meaning of concepts in an institution, putting those concepts into practice is bound to be problematic right from the beginning. Chapter one of this toolkit defines some of the key concepts relating to quality and quality assurance. It is hoped that users will find this chapter useful when it comes to understanding quality and quality assurance.

Chapter one also underscores the importance of having a quality assurance policy that guides institutional practice. The chapter explains why it is important for an institution to craft an appropriate quality assurance policy that takes into account the institution's unique context. We hope that users will find the theoretical approaches and principles of quality assurance in the chapter valuable tools in conceptualising the best quality assurance systems relevant to their contexts. The underlying message in this chapter is that the success and legitimacy of any quality assurance system rests on its value position.

The core of this toolkit is the section on criteria which points at the whole range of key aspects that need to be in place for an open school to maintain quality. In a way, these can be used as a checklist for good practice in a given context. In order to pay due emphasis to contextual factors, we recommend that the criteria be interpreted with care. A truism of quality is that it is impossible to demonstrate improvement without measurement. We anticipate that the quality criteria will be used for regular measurement of how well an institution performs in the different dimensions of quality. Collecting and analysing data on the implementation of the different quality criteria is an important part of ongoing self-improvement; we anticipate that the quality criteria defined in this toolkit will be used more as a mechanism for improving the service delivery of open schools than for making judgments about the performance of institutions.

We recommend that individual schools define their own specific indicators to use as a basis for measuring their performance at any one time. Quality indicators are specific and measurable elements of practice that can be used to assess the quality of service delivery. Whilst most indicators are quantitative, for ease of

measurement, we need to warn users of this toolkit that ‘What counts cannot always be counted and what can be counted does not always count’.¹ Thus, indicators can also be qualitative.

The case studies are basically narratives of how the different dimensions of quality assurance are given effect in the institutions. Clearly, the case studies show how contextual factors influence the quality assurance practices of the different institutions. It is envisaged that these ‘narratives of good practice’ will give users important insights into how to implement certain quality elements. By no means do the case studies in this toolkit claim to be showing ideal situations in terms of quality assurance, for quality can never be fully achieved. At best, the case studies show some of the positive practices to enhance the quality of open schooling that are happening in the different institutions. Readers will benefit from the examples of good practice, but they also have a lot to learn from the challenges and gaps that are revealed in the case studies. For this reason, we encourage users to read the case studies with a critical eye so that they can identify possible gaps in the application of quality assurance, and use them as important learning points. Readers are challenged to think of better ways of doing the things illustrated in the case studies.

At the end of this toolkit are two appendixes, A and B. Appendix A is an elaboration of Wehlburg’s Assessment Spiral for quality improvement (see paragraph 5.1 of chapter one). This model provides a useful approach to quality improvement in an institution, and we flesh it out in this appendix by representing it diagrammatically and explaining what it entails. We hope that readers will be able to draw from its key dimensions of target setting, gathering data on outcomes, and using the data to feed back to a new cycle of planning that sets even higher targets and new outcomes to achieve.

Appendix B is an instrument used at NAMCOL to cost programme and course development. The instrument does not only remind us of the importance of costing the key processes of ODL provision, it also shows specific aspects that need costing when one develops programmes and courses. Costing services is a critical aspect of planning that determines whether or not an institution will function smoothly.

1 Campbell, Hacker and Roland. *Quality indicators for general practice. A practical guide for health professionals and managers.*

An institution that plans well is able to rationalise its operations and be fair with learners in terms of affording them value for their money.

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CHAPTER ONE

Theoretical Perspectives

Ephraim Mhlanga - SAIDE

1.0 BACKGROUND

For children to reach their full potential and countries to develop, the gains made in universal primary education must be replicated at the secondary level. At present, 54 per cent of children of the appropriate age in developing countries attend secondary school. In Oceania, almost two thirds of children of secondary school age are out of school. In sub-Saharan Africa, only a quarter of children of secondary school age are in secondary school.¹

Investment in education is generally regarded as worthwhile because of its perceived benefits to the socioeconomic development of societies. Countries all over the world are investing heavily in an attempt to achieve universal primary education by 2015. 'There were 40 million more children in school in 2006 than in 1999',² but there has been no corresponding increase in secondary school enrolment. Despite substantial investment in secondary education provision in many developing countries, the majority of primary school leavers do not progress to secondary school. In Sub-Saharan Africa, only one child in four participated in secondary schooling in 2006, leaving some 78 million of the region's school-age

1 United Nations. 'The Millennium Development Goals Report'.

2 Daniel. *Perspectives on Education: Open Schooling in the 21st Century*, p. v.

children out of school.³ UNESCO estimates that a global secondary net enrolment of 80% would require secondary places to be found for 200 million more youngsters.⁴ Many countries simply do not have the resources to meet such demand through conventional schooling. The value of investing in alternative policy options to meet this growing demand cannot be overemphasised.

With many countries beginning to realise that ODL could be a cost-effective way to increase access to secondary schooling, it is gradually gaining importance and open schools are springing up in many developing countries. Private providers are also becoming more important in places where public resources cannot cope with demand. The National Institute of Open Schooling (NIOS) in India, for example, enrolls more than 300,000 students every year and has a cumulative enrolment of 1.5 million students.⁵ In Sub-Saharan Africa, the Namibian College of Open Learning (NAMCOL) and the Botswana College of Open and Distance Learning (BOCODOL) are leading examples of open schooling. In 2009, 28,942 out-of-school youths and adults (10,033 male and 18,862 female students)⁶ enrolled in NAMCOL programmes, and 42 of these learners enrolled in more than one programme. In the same year, an estimated 25,736 out-of-school youths and adults (8,919 males and 16,817 females) accessed BOCODOL's programmes.⁷ Many other countries within the region have also introduced different forms of open schooling to broaden access to secondary schooling. This is certainly a positive development in terms of access, but the issue of quality remains a big challenge. In many countries, open schooling has been introduced without sufficient start-up investment, and this has compromised the quality of the education offered. Open and distance learning are frequently, and mistakenly, regarded as cheap options that can be started with skeletal resources. In reality, ODL initiatives need substantial start-up investment if they are to be credible and if learners are to benefit fully from them. From a financing point of view, the advantage of ODL over the conventional system is that it is more

3 Abrioux. *Perspectives on Education: Open Schooling in the 21st Century*, p. 4.

4 Daniel.

5 Mitra. 'Student support services in open schooling: a case study of students' needs and satisfaction in India'.

6 Statistics supplied by case study contributors from NAMCOL in April 2010.

7 Statistics supplied by case study contributors from BOCODOL in April 2010.

cost-effective – and if an activity is cost-effective, it is good value for money. Investments in an ODL system yield greater returns by way of system outputs as compared to conventional systems. Greville Rumble⁸ produced a comprehensive analysis of the costs involved in setting up and sustaining an ODL system. He identifies the main cost drivers in ODL as:

- the initial capital costs of establishing buildings, equipment, office and ICT [information communication technology] infrastructure,
- the costs of sustaining the business as an operation,
- the costs of developing curricula and materials to support courses,
- the costs of course delivery, [and]
- the committed and flexible costs incurred in supporting students.⁹

Open schooling must mean access to quality education, otherwise its introduction becomes counterproductive because the millions who go through the system risk remaining too illiterate to make meaningful contributions in the developing economies. **The quality of the education is as important as the quantity offered.**

This toolkit aims primarily at helping people working in open schools to institute sound quality assurance systems that can lead to quality ODL provisioning. Indirectly, it also seeks to alert policy makers to the importance of investing in quality open schooling as more and more learners opt for this alternative form of education. An underlying value position of this toolkit is that open schooling is not a cheap form of education as many people would like to believe; rather, its main advantage lies in its potential to provide cost-effective, flexible education not possible in conventional schooling. We strongly believe that open schooling has the potential to offer quality education that is comparable to conventional schooling. Given the large numbers of learners who fail to make it through the conventional system, and therefore need a second chance, investing in quality open schooling is worthwhile. The next section explains our interpretation of open schooling.

8 Rumble. 'Costs of Open Schooling', pp. 55–64.

9 Rumble, p. 57.

2.0 WHAT IS OPEN SCHOOLING?

Open schooling is a flexible education system that allows learners to learn where and when they want, physically away from a school and a teacher. It uses several teaching methods to support learning, and has no age restrictions. As the term suggests, open schooling offers school-level education rather than post-secondary, although in practice there may also be some skills training. Phillips defines open schooling as ‘the physical separation of the school-level learner from the teacher, and the use of unconventional teaching methodologies, and information and communication technologies (ICTs) to bridge the separation and provide the education and training’.¹⁰ This means that the provider uses a variety of ways to open up access to education for learners from diverse socio-economic backgrounds.

Open schooling’s flexibility makes it suitable for developing communities because it substantially reduces the opportunity costs of schooling for learners from poor backgrounds. Learners can study without neglecting their household chores or having to sacrifice paid work. Tending crops, looking after family animals, selling at the market and helping out with various domestic chores are some of the primary reasons why learners from poor African communities drop out of school. These learners benefit greatly from the flexibility of choosing when, where and how to learn; and open schooling aims to achieve this.

2.1 Features of open schooling

Key features of open schooling include the following:

- The physical separation of learners from the teacher for most of the time
- The use of unconventional teaching methodologies and ICTs
- Flexible learning, which is primarily learner controlled
- The use of self-instructional learning content.

10 Phillips cited by Abrioux. ‘Special Issues and Practices in Open Schooling’, p.3.

The enhancement of educational access and achievement through the **removal of all unnecessary barriers** to learning is central to open learning. Learning is learner centred and geared to meet the idiosyncratic needs and preferences of individual learners. Open schooling is based on the following key principles:

- **Lifelong learning:** Learning is a lifelong process and should directly relate to the life experiences of the individual. For this to happen, the individual has to appreciate the relevance of what is learned and the motivation to learn is intrinsic.
- **Flexible learning:** Learners choose what they want to learn, how they want to learn and when they want to learn. The central pedagogical elements of open learning allow for individual differences and individual learning styles and learning preferences, unlike formal systems of learning.
- **Learner support:** Learners should be provided with adequate support to help them achieve academic success. Whilst studying is a personalised experience, support structures and systems should be in place for learners to fall back on whenever they experience difficulties.
- **Cost-effectiveness:** Open schooling systems should be cost-effective but should not compromise on the quality of the education they provide.

Open schooling observes the ideals of learner-centredness, lifelong learning, flexibility of learning provision, removal of barriers to access learning, recognition of prior learning, provision of sound learner support, construction of learning programmes in the expectation that learners can succeed, and maintenance of rigorous quality assurance over the design of learning materials and support systems.¹¹

ICTs have contributed to improved learner support and flexibility of learning. Open schooling is increasingly improving through their use.

The terms 'open schooling' and 'distance education' are often lumped together, which tends to create the false impression that the two are synonymous. Although

11 Ibid. p. 20.

there is some overlap between the two, they refer to different things. Distance education is a delivery mode that focuses on the pedagogy/andragogy, technology and instructional systems design that aim to deliver education to students who are not physically 'on site'. Learners are separated from the instructional base or teacher, either in space or time, for a significant portion of their learning.¹² Distance education uses a variety of methods to provide structured learning. It does not preclude face-to-face contact; on the contrary, it offers learners a range of support mechanisms that allow them to both interact with content independently and to access occasional face-to-face support if necessary. In distance education, learning does not necessarily have to take place at school or in the presence of a teacher; neither does it have to be based on a 'group-structured' programme. There is freedom of space and time, and there is also much learner flexibility in the learning process, hence the overlap with open schooling. In Lentell's (2004) view, distance education is simply a delivery strategy whilst open schooling is a philosophy of education.¹³

3.0 POLICY

Many countries are beginning to recognise the importance of supporting and regulating open schooling at a national level. Regulating open schooling encourages providers to offer credible programmes and learner support services, which is similar to what happens in traditional schooling. For an institution to deliver a quality product, it needs a policy on quality assurance, an institutional position statement that defines in explicit terms the standards to be attained by the institution (what), the methods/approaches to be used (how) and the parties responsible (who). A quality assurance policy is an institutional values position: it is a commitment to excellence that is demonstrable, defensible and externally verifiable. Ideally, the statement (value) is mirrored in the mission of the institution and aligns with the national policy position on ODL. The policy statement is not only a commitment by the institution to attain defined standards, it also guides and regulates the activities of all stakeholders within the institution. It directs

12 ADEA Working Group on Distance Education and Open Learning.

13 Lentell. 'Framing Policy for Open and Distance Learning'.

the various efforts and energies of institutional stakeholders towards a common purpose, and it guides institutional planning efforts, including the allocation of resources. If there is no such policy, institutional activities are not harmonised and people do not feel obliged to do certain things. Du Vivier and Ellis (2009, p. 22) argue that a policy on open schooling improves:

- The creation of broad consensus on the most appropriate direction for the future of open schooling;
- The formulation of minimum standards of service delivery and adherence to such standards by providers;
- The planning of joint initiatives that maximise the value obtained from limited funding available; and
- Increasing public awareness of opportunities offered through open schooling.¹⁴

Policy is a way to ensure that the right things are done. A lack of policy suggests a lack of commitment on the part of management.

There should be a shared understanding of the policy within the institution, so the policy should be developed with some degree of consultation. Sound quality assurance policies have frequently failed to take effect simply because of the manner in which they were developed. Generally, top-down approaches to policy development are not effective because the people implementing them regard them as managerial rather than self-improvement instruments. Equally bad are overly complicated quality assurance policies that are difficult to interpret and implement; they do not provide the guidance they are meant to provide.

4.0 QUALITY IN OPEN SCHOOLING

The discourse of quality assurance is filled with confusing concepts that easily influence how people operate. It is therefore critical to develop a shared understanding of the concept within an institution if all the parties involved are to operate on

14 Du Vivier and Ellis. 'Formulating Policies to Enable the Development of Open Schooling', pp. 21-34.

the same page. As Barnett (1994) suggests, conceptual clarifications are important because our methods of evaluating quality spring from deep-seated beliefs about what quality is.¹⁵

It is sometimes argued that quality is like beauty: it resides in the eyes of the beholder. For example, family members, friends or club members may have different opinions about or an appreciation of something that they have in common. The following activity illustrates how people can sometimes have different ideas about the quality of an object. Try to answer all three questions.

THE CONTESTED NATURE OF QUALITY

1. When you go shopping you always look for quality products. Can you pause for a moment and write down what exactly you mean by a quality shoe, television set, car, etc.? List the quality attributes of the item.
2. Has your opinion of the quality of an item ever differed significantly from that of your spouse, friend or parent? What was the main reason for the differences between you and the other person's opinion of the quality of the product?
3. Think of why you choose to open an account with one bank and not another, or to register with school A instead of school B.

Quality is interpreted and defined differently by different people. Harvey and Green (1993) define five meanings of quality:

- quality as exceptional (excellence);
- quality as perfection;
- quality as fitness for purpose;
- quality as value for money;
- quality as transformational.¹⁶

15 Barnett. 'Power, Enlightenment and Quality Evaluation'.

16 Harvey and Green. 'Defining Quality'.

As **excellence**, quality is perceived as something distinctive or special, something that cannot be attained by many. Analyses of mission statements and quality assurance documents for most open schools, for example, suggest that many open schools draw from the notion of excellence in benchmarking their performance. The quality assurance guidelines of the Papua New Guinea Open School clearly state that the Open College has in place mechanisms that recognise and reward excellence, and that the college has in place and practises an appointment and promotion policy that promotes excellence as an essential characteristic of the process.¹⁷ Several other open schools also promote the notion of excellence in their mission and quality assurance policy statements. Indeed, within the Southern African region there are institutions that provide shining examples of open schooling; they are emerging centres of excellence in this area.

As **perfection**, quality relates closely to the notion of ‘zero defect’ commonly employed in industrial settings, where the physical products of a production chain have to meet the exact specifications of the desired product, in its perfect form, without any defects.¹⁸ From an educational point of view, this definition may be problematic for two main reasons. First, the product of an educational process is multifaceted, and usually has some unforeseeable and unpredicted but desirable attributes. Second, it is impossible to define a ‘perfect’ or ‘zero defect’ graduate of an educational process. This is primarily because, from an epistemological point of view, no knowledge is perfect, no matter how superior it may be.

The **perfection** concept of quality is, however, useful for ridding open schooling of the obvious defects that challenge learning, such as poor design of learning materials, poor assessment processes and lack of well-planned learner support.

As **fitness for purpose**, quality is conceived in relation to institutional set targets/goals. It allows an institution to demonstrate the achievement of its objectives according to the purpose of its mission. Thus, the ‘fitness for purpose’ notion means different institutions can benchmark their quality differently depending on their level of development and their overall context.

The **fitness for purpose** definition of quality is a developmental approach to quality, and this aspect is particularly significant for open schooling. As the needs

17 Mannan. ‘University of Papua New Guinea Open College: Quality Assurance Plan’.

18 Harvey and Green. ‘Defining Quality’.

of clients change with time, so do educational institutions' aims. Bradbery contends that the product remains a quality product by maintaining its value to the customer.¹⁹ The assumption here is that the quality of institutional delivery is not static; rather, it is dynamic as it responds to changes in the environment.

As **value for money**, quality is viewed in terms of returns on investment.²⁰ The **value-for-money** conception of quality is client sensitive as quality is judged according to the extent to which the client is satisfied with the services offered. As Harvey notes, the growing accountability of educational institutions to governments, students, parents and sponsors reflects the **value-for-money** conception of quality. Institutions that subscribe to this notion of quality extensively involve professional bodies and the employers of graduates to specify their requirements and to accredit their programmes. As education becomes more and more responsive to market demands, providers of open schooling will increasingly be called upon to be accountable to their key stakeholders.

As **transformation**, quality has pedagogical implications, and refers to how much the learning process transforms the learner. Quality in this case is defined in terms of the 'value added' in the learner, and learner assessment seeks to establish the amount of such value added. The amount of value added is not tangible and its quantification is problematic, yet this is central to determining the worth of any schooling system.

While the various perceptions of quality are treated separately in the literature, it is important to note that in reality several notions of the concept usually appear in the quality assurance policies and practices of any given institution. An important point to note is that although the different conceptions of quality may be expressed in the policy statements of an open school, the emphasis placed on each of them is very much contextual. In general, open schools have to demonstrate that they make prudent use of whatever public subsidies they receive and that learners enjoy the full benefit of their money. This is achieved by ensuring that the programmes and services they offer are credible and give open school learners a competitive edge in the globalised society.

19 Bradbery. 'The Process Is the Content'.

20 Harvey. 'External Quality Monitoring in the Market Place'.

5.0 QUALITY ASSURANCE

An open school's perception of quality will be influenced by one or a combination of the different conceptions of quality discussed. Whatever quality assurance systems are developed depend on an institution's perception of quality schooling. Quality assurance is about putting an institution's notion of quality into action. This requires both a clear statement about an institution's concept of quality and a shared understanding of that concept amongst institutional stakeholders like management, academic staff, students and all the service providers. Quality assurance refers to all those attitudes, objects, actions and procedures that, through their existence and use, and together with the quality control activities, ensure that appropriate academic standards are maintained and enhanced in and by each programme. Quality assurance extends to making the process and standards known to the educational community and the public at large.²¹ The international trend is to make quality assurance explicit and open. This can be seen in the increasing transparency of institutional evaluation procedures and outcomes, and public access to the results of such evaluations. Where it is well implemented and institutionalised, quality assurance permeates every facet of institutional business; it becomes a culture of the institution that guides and regulates the activities of new members.

5.1 Approaches to quality assurance

When developing quality assurance systems in an institution it is important to clarify not only the interpretation of quality, but also how it will be put in place. The United Kingdom Higher Education Quality Committee's (HEQC) *Guidelines on Quality Assurance* of 1994 provides a useful guideline on approaches to quality assurance. The first two guidelines read as follows:

An effective quality assurance and control system is characterised by agreement throughout an institution on purposes and methods and includes a feedback loop to inform and improve the quality of educational provision.

An effective quality assurance and control system is underpinned by wide participation, effective channels of communication, the

21 Pierce. 'Quality Assurance and Accreditation in Higher Education in East Asia and the Pacific'.

collection of acceptable evidence, the acceptance of responsibility by staff and students, and an institutional commitment to staff development and training.²²

Explicit quality assurance policies and systems are new developments in most open schools. Getting everybody on board in terms of quality assurance in an institution is about teamwork and team spirit, which often means changes in the way members of an organisation operate. In this context, it is appropriate to view new quality assurance initiatives as innovations within the institutions, requiring the adoption of appropriate change strategies for the policies to succeed. According to Rogers as cited by Uys (2003, p. 3), innovation diffusion theory provides a general explanation for the manner in which new entities and ideas diffuse through social systems over time.²³ Innovation diffusion theory is essentially a bottom-up approach to bringing about desired change in an organisation. When implementers at the grassroots level fully embrace innovations, those innovations are most likely to be successfully put in place. Although Rogers reviewed studies on the diffusion of technological innovations in different institutional contexts, his model for the adoption of innovations describes the key roles and desired behaviours that typically occur during the adoption of new innovations and is relevant to quite a broad range of innovations, including quality assurance. One key tenet of his model is that organic approaches give implementers at the grassroots a sense of importance in an organisation and encourages them to integrate any new innovations with their day-to-day practices. Adopting the model can reduce the inherent power tensions in quality assurance policy processes, and encourages a sense of ownership amongst practitioners. Implementers then develop a positive perception of the value added by the innovations in addition to the sense of ownership.

It is important to note that Rogers's model, particularly when used with quality assurance, also needs a clear vision from management; this top-down aspect includes the support of both senior and middle management for the effective diffusion of the innovation within a given open schooling setting.²⁴ This is particularly important because successful quality assurance policy implementation in an education institution relies on the concerted effort of different internal stakeholders

22 Higher Education Quality Council. *Guidelines on Quality Assurance*.

23 Rogers cited by Uys. 'Critical success factors in the infusion of instructional technologies for open learning in development settings: The case of the University of Botswana' .

24 Uys. 'Critical success factors in the infusion of instructional technologies for open learning in development settings: The case of the University of Botswana'.

like management, academic staff and students. We therefore need a combination of bottom-up and top-down approaches (see Uys's Leadership, Academic and Student Ownership and Readiness (LASOR) model²⁵) for the development of effective quality assurance policies in open schools.

An important concept of quality assuring educational practice is the notion of 'closing the feedback loop'. As a concept, the feedback loop identifies the goals and outcomes of an institution, conducting a self-assessment to collect institutional performance data and having the data feed back to the process of re-formulating the goals. Although this notion is critical in guiding quality assurance, it is inadequate for the ever-improving nature of educational service. Wehlburg's Assessment Spiral²⁶ is probably more appropriate in the context of open schooling. The Assessment Spiral is a never-ending circle that includes goals and outcomes, measurements and findings, and changes in the curriculum based on those findings.²⁷ In the Assessment Spiral, educators must continually monitor and intentionally increase the quality of each assessment cycle (see Appendix A for more detail on this model). Lategan (1993)²⁸ rightly argues that a quality assurance system is an upward feedback spiral based on:

- Defining goals
- Designing or adopting quality standards
- Designing and implementing self-assessment
- Producing self-assessment reports
- Reviewing and improving the institution's strategic plan.

The loop depicts a never-ending process of quality improvement. An institutional policy for quality assurance is essential for all the functions, services, areas and levels of an institution.

An institutional quality management system is a feedback loop of quality policies, procedures and evaluation (Fourie, 2000).²⁹ Quality assurance policies define the provider's purpose, set out the standards to be met and outline procedures on how policies are to be put in place. Regular evaluation determines the extent to which

25 Uys. 'Leadership, Academic and Student Ownership and Readiness (LASOR) Model for Technological Transformation in Tertiary Education'.

26 Wehlburg. 'Closing the Feedback Loop Is Not Enough: The Assessment Spiral'.

27 Wehlburg.

28 Lategan. 'Quality Assurance Systems for Providers of Education and Training', p. 13.

29 Fourie. 'A Systems Approach to Quality Assurance and Self-Evaluation', p. 53.

defined procedures are being followed and policy targets are being achieved, and whether policies and procedures are appropriate as time moves on.

Thinking of assessment as an upward spiral, still identifying goals and outcomes, still measuring those outcomes, but with ever-increasing improvement of the quality of student learning as the spiral moves upward is a useful model we would like to emphasise in this toolkit. We want to emphasise the practice of benchmarking standards to be achieved and of working systematically towards achieving those standards. Quality assurance is about consistently setting oneself new targets; it is a never-ending process.

In her expert presentation at the 2009 INQAAHE Conference in Abu Dhabi, María José Lemaitre gave what she termed a new approach to quality in higher education institutions.³⁰ Her approach suggests how an institution can develop its quality agenda. Figure 1 illustrates this strategic approach to quality enhancement:

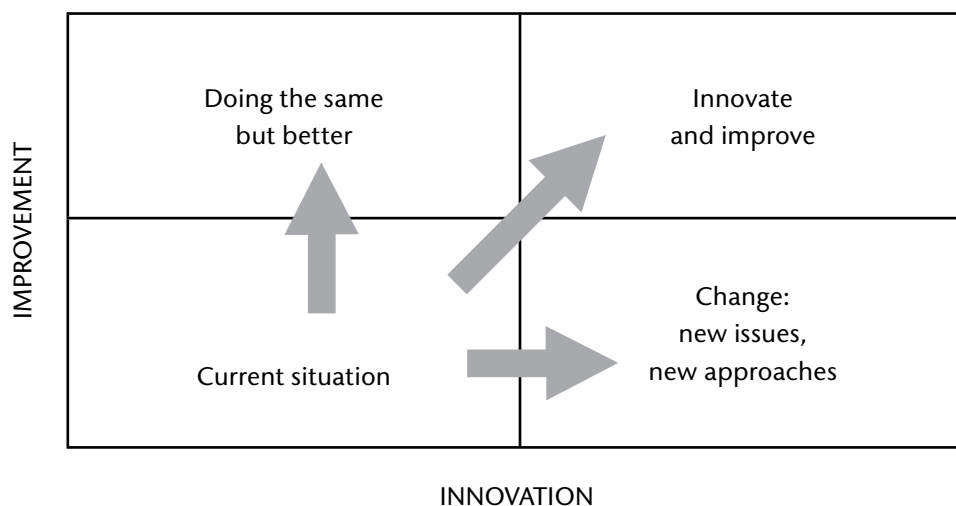


FIGURE 1: Improving quality through change and innovation³¹

Source: María José Lemaitre, (2009)

³⁰ Lemaitre. 'Quality Assurance in a Changing World'.

³¹ Diagram adapted from Yorke, 'Enhancement-led higher education?'

By assessing its current position, an institution can see which practices to hold on to – and further improve on – and which practices to change to improve its quality. It can also look at adopting new approaches.

Quality assurance is the nerve system of institutional business; it permeates every aspect of institutional business and affects everybody in the system. Everybody in an organisation is sensitive to and is guided by the organisation's quality values and ethos. If a problem crops up, the entire system will react, signalling a need for an immediate remedy. A dysfunctional registration system, for example, can derail the entire year's programme for an open school as tutorials may not start on time; learners may not receive their learning materials on time; assignments may not be done, submitted, marked and returned on time; and examinations may not proceed as scheduled. The entire delivery process of an institution is negatively affected and so quality is compromised. Those outside the system may also notice the signs of distress, especially if the problem remains unaddressed for long. A well-functioning open schooling system should have self-diagnostic mechanisms that detect quality anomalies early enough for corrective measures to be taken. But the fundamental value of quality assurance lies in its ability to make an institution proactive rather than reactive. It is like a compass that directs the ship (school) towards its destination so that it does not steer off course, wasting time and fuel (resources) in the process.

5.2 A well-integrated quality assurance system

In a well-functioning school all the components work in harmony and everything holds together. As suggested above, the school functions as a system. The notion of harmonising the different elements of a schooling system is fundamental in developing and implementing a quality assurance system. This diagram is an example of a well-integrated quality assurance system.



Quality assurance means reflecting on an institution's practices to redefine goals, reposition the institution and review strategies to attain existing goals. This self-examination involves asking key questions that clarify an institution's position.

KEY GUIDING QUESTIONS:

The following are guiding questions that some institutions use in self-reflecting on their practices; how useful do you find them in your context?

- What are we trying to do? Why are we trying to do it?
 - How are we trying to do it?
 - Why are we trying to do it that way?
 - Why do we think that is the best way of doing it?
 - How do we know that it works?
-

Source: UNISA, *Integrated Quality Management Framework*, p. 5

5.3 The purposes of quality assurance in open schooling

Increasingly, quality assurance serves several purposes in an educational setting, primarily because of a wide diversity of stakeholders' growing interest in education. Some of these purposes include:

- To improve system and process institutional services
- To inform would-be learners and their parents/guardians of what services are provided
- To inform the public of what services are provided
- To teach positive values of excellence to learners who go through the system
- To encourage institutions to continually reflect and transform to keep up to date with changes in society.

One of the main challenges of open schools in the developing context, where they are basically new, is to convince the public that their offerings are comparable to

those of conventional schooling. It is important in these contexts for open schools to demonstrate their quality by maintaining robust quality assurance systems that are transparent and that produce quality graduates.

5.4 Principles of quality assurance

How an institution's quality assurance systems are developed is just as important as the systems themselves. Research has shown that **consultative processes** promote policy buy-in by implementers within an institution and improve policy implementation. Internal staff should participate in the development of the quality assurance policies they put in place to improve themselves.

Sound quality assurance systems in an educational institution are **non-bureaucratic and non-instrumentalist** in nature. They are based first and foremost on epistemic values and they aim at self-improvement. Those who put them in place should be able to appreciate their self-improvement value. It is pointless investing in the development of robust quality assurance policies and systems if they do not improve practices. Studies have shown that in institutions that hired international quality assurance experts or human resource consultants to develop their quality assurance policies (and institutional strategic plans where the quality assurance thrust is defined), the role of institutional staff has been sidelined, internal ownership has been low and policy implementation has been compromised.³² In such cases the quality of the institutional delivery did not improve. This is not to suggest that external consultants are a bad idea; it simply emphasises the importance of maximising the participation of all stakeholders in the processes, and of developing internally driven quality assurance systems. An institution's quality assurance systems should have a developmental rather than a compliance rationale.

There is often a **lack of alignment between quality assurance policies and the mission** of an institution. The same can be said of quality assurance policies and institutional budgets and resource planning in general. An institution's mission finds expression in the institution's quality assurance arrangements. The latter is essential for achieving the former, hence the importance of aligning the two.

32 Mhlanga. 'Quality Assurance in Higher Education in Southern Africa: The Case of the Universities of the Witwatersrand, Zimbabwe and Botswana'.

An institution's quality assurance arrangements cannot be sustained if they are not given priority in the planning processes. Our view is that **quality assurance should be an integral aspect of institutional planning**. The implementation of quality assurance policies should be reviewed regularly and, as pointed out above, the results of such reviews should be used for better planning and more efficient implementation. This is the only way institutions can realise ongoing development and improvement.

Lastly, a key principle of quality assurance is that it needs to **be contextualised** if it is to be relevant and appropriate. A study of how quality assurance policies in three Southern African universities were developed revealed too much preoccupation with the development of policies and the establishment of quality assurance structures, while the relevant contextual factors that constrain effective implementation of the policies were overlooked.³³ Thus, while the policies were sound on paper, in practice many constraints relating to staffing, student numbers, resource availability and, most important, staff motivation remained unaddressed. These pressing factors negatively affected the effective implementation of policy, and worked against quality enhancement in the institutions.

Contextualising quality assurance addresses the 'fitness for purpose' and 'fitness of purpose' of quality. The standards set and the approaches used should all be sensitive to the particular context of an institution.

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CHAPTER TWO

Quality Criteria for Maintaining Quality in Open Schools

Ephraim Mhlanga with SAIDE Education Staff

1.0 INTRODUCTION

Once an institution has a clear policy on quality assurance, it must then draw up well-defined quality criteria that show the different aspects of the institute's operations that will be quality assured. In a sense, quality criteria are a way of putting into practice an institution's quality assurance policy. They provide an agreed description of the quality benchmarks to be achieved, as well as a checklist of what needs to be done to meet them. A major advantage of working with criteria is that they form a good basis for regular self-reviews for self-improvement purposes. Criteria allow an open school to identify weak areas needing improvement, or can show if a provider is meeting the minimum requirements for an open schooling service. They also make it possible to compare performance in specific areas across institutions and across programmes within an institution. Criteria also make external evaluations both easier and more objective. This is particularly true with open schools, most of which have to be accredited and regularly evaluated by ministries of education.

When developing criteria, it is useful to think of an open school as a system with interrelated parts. Criteria can then be conceptualised within a systems model, where a school is viewed as having inputs that facilitate certain processes to achieve the desired outputs. The interrelationship between and amongst the various input, process and output elements helps to define specific criteria around these variables of an open schooling system.

The criteria in this toolkit provide general guidance for good practice in open schools. They can be used for the development of performance indicators specific to the context of an open school.

2.0 A NOTE ON TERMINOLOGY

Before we discuss the criteria, we need to explain some of the terminology we use.

Programme development

A programme consists of a number of courses that lead towards a qualification. Open schools offer, for example, a General Certificate of Education – Ordinary Level and a Diploma in Youth in Development Work. Generally, learners are expected to learn certain skills as part of earning a certificate. There is usually a set of rules and regulations governing entry into a programme of study.

Programme development is concerned with translating the broad curriculum into groups of courses that lead towards a qualification. It is also about planning for inter-programme articulation.

The course is an environment for learning

Following from the above paragraph, it is important to clarify what a course is.¹ Our understanding of a course is that it is an environment for learning. The SAIDE perception of a course is that:

1 There is usually confusion between a course and a module. A course is much broader than a module and consists of several modules. A module is a unit or component of instruction; it can be a single topic or a small section of a broad topic that is studied for a given period of time. A module is usually conveniently flexible in its design.

In good distance learning, the course, not the teacher, teaches the course. For this to happen successfully, it must be very much more than a package of study materials. No matter how sophisticated it may be, a study package is still no more than well-presented print, visuals, experiment kits, audio tapes, and perhaps video tapes. The course is the structure of learning that is designed into those materials. It has five basic elements. First, it contains conceptual pathways to mastery of its knowledge, conceptualizing skills, and practical abilities. Second, it contains pedagogical strategies for helping the learner find his or her way through these pathways. This involves use of supportive and motivating elements like availability of tutor support that is part of the structured pathways. Physical resources for learning (places in which to meet, study and practice talking about the subject matter of the courses) must be available. As with tutor support, they need to be both freely available and their use planned into the course as the students unfolds it. Third, both summative and formative assessment should be integral to the learning process. That is, assessment cannot be 'tacked-on' to the end of a course. It should not simply be a test that merely confirms what the student now knows and does not know. It must validly test the student's achievement of all the objectives of the course and these will not have been expressed merely in terms of the knowledge the course will impart. Usually the assessment will be designed to assist in developing the understanding for which the course aims. Fourth, the materials and indeed the whole presentation of the course, must excite, engage, and reward the students. Fifth, it must be designed to develop and sustain independence of thought and the capacity for continued self-education.²

2 SAIDE. 'A well-functioning distance education institution'.

Course design

Good course design is more than planning the content, pedagogy and assessment of individual courses. It is also about taking into account the specific needs of the target group of learners. It defines the learning pathways that learners have to follow to meet their own needs as well as the needs/aims of the course.

In addition, course design should take into account the capacity of the tutors. Thus, course design involves looking at all the elements of a course, and ensuring that they are integrated in the most educationally appropriate and cost-effective ways. All this is done with both the learners and the tutors in mind.

Course design involves the selection of media and technology. Media are means of communication such as face-to-face contact, written text, graphics, audio communication or video communication. Various forms of technology provide the means of delivery. For example, written text can be delivered by either print technology or computer technology.

Learner support

Learner support is the ‘interface between the institution and its students’.³ It is more than the mere provision of mass-produced and pre-packaged learning materials like study guides, modular resources and CDs. Learner support refers to the wide range of interventions that take place at the various stages in the learner’s academic life: from pre-registration, through to the registration and post-registration stages. The interventions are meant to provide sufficient and timely information for decision-making, for smooth progression on a study course and for post-study reflective experience. In an open school, learner support services are deployed through a wide range of activities, a variety of mediums, a range of support staff and a range of places. They are developed with the specific needs of learners in mind, and so are context specific. While many central activities are crucial for a well-functioning ODL system, learner support activities are aimed at meeting the unique needs of the individual (although this may occur in groups) and their specific goal is to counteract disadvantage and ensure maximum

3 Stewart. ‘Student support systems in distance education’.

opportunities for success and a quality educational experience. Generally, learners who go through open schooling need support with academic matters, personal and/or social concerns and accessing information and resources. Capturing and maintaining reliable information on student profiles helps an institution use its support systems to meet learners' needs.

3.0 QUALITY CRITERIA

1. POLICY AND PLANNING

The educational provider has a clear sense of purpose and direction, based on both national priorities and the quality demands of cost-effective educational provision. There are both rationale and relevant systems for the use of distance education methods to achieve the purpose of the programme for the target learners.

Although you may be following a national curriculum determined by the relevant ministry in your open schooling system, you still need to be able to make independent adaptations to suit your open schooling context.

Elements of the criterion

- i. Institutional policies are aligned with national policy, including appropriate registration, accreditation and articulation.
- ii. Institutions establish guidelines related to all the quality criteria.
- iii. Prior to offering programmes of study through open learning, the provider has explicitly designed systems for administering all the processes to the best advantage of learners.
- iv. Prior to offering programmes of study through open learning, learner support mechanisms are in place and contingencies are planned in order to meet the provider's stated aims in terms of academic quality and standards.

1. POLICY AND PLANNING
continued

- v. Given the nature of change in education, at least annual planning and 3–5 year review cycles take place.
- vi. Institutions involve all stakeholders in the planning process.
- vii. There are policies to ensure that the physically challenged members of a society have the same access to educational facilities as everybody else.

2. LEARNERS

There is up-to-date, detailed information about past, present and potential learners. This is used to inform policy and planning of programme development, course design and materials development, learner support, and other relevant aspects of educational provision.

In an open schooling system we need to take into account school-age learners as well as out-of-school and adult learners.

Elements of the criterion

- i. Educational Management Information Systems (EMIS) of the institution must be updated and maintained and available to planners and decision-makers, including course coordinators.
- ii. The EMIS of the institution must articulate with the EMIS of the national government.
- iii. Learner profiles include at a minimum: demographic information, technology profile, records of learners from formal schooling, records of learners with special needs, access to regional learning infrastructures, prior learning experiences and achievements, language profile (including language ability in the main language of teaching and learning, mother tongue and multilingual language ability). For older learners, work experience would also be included. This information is regularly updated.

3. PROGRAMME DEVELOPMENT

Subject to national prescriptions, programmes are flexible and designed with both national needs and the needs of prospective learners and employers in mind; their form and structure encourage access and are responsive to changing environments; learning and assessment methods are appropriate to the purpose and outcomes of the programmes.

Programme development forms the core of open schooling provision. In programme development, all other aspects of open schooling need to be taken into account.

Elements of the criterion

- i.** Programme development always starts with the learner profile and in open schooling we envisage three main categories: school-age children, out-of-school youth and adults.
- ii.** Apart from meeting the needs of the learners, the programme development also meets the requirements of the national curriculum and ensures equivalence in standard, even if the programme is not 'the same'.
- iii.** Programme development is the integration of curriculum design, materials development, decentralised learner support and assessment.
- iv.** Programme development takes account of resources available (e.g., technology, human resources, infrastructural resources).
- v.** Programme development makes sure that resources are used appropriately and cost-effectively to suit the desired learning purposes and outcomes.
- vi.** Programme development is a team exercise to integrate content/subject expertise, pedagogic expertise and technical expertise.
- vii.** Institutions can design programmes to suit the wide range of differences (e.g., age, entry level) of learners in the school.

**3. PROGRAMME
DEVELOPMENT**
continued

- viii.** Appropriate stakeholders are involved in the programme conceptualization (e.g., learners, parents, employers).
- ix.** The provider ensures that the programme provides a learning pathway that leads to the relevant national qualification.
- x.** Programmes and qualifications offered by an institution are aligned with the national qualifications framework of the country.
- xi.** To facilitate access, entry requirements for the programme are as open as possible, and include recognition of prior learning and work experience.
- xii.** Due to the openness of entry, care is taken to provide sufficient academic support to academically challenged learners as identified upon enrolment. This may be through the provision of bridging courses, or more face-to-face support, or additional units (or learner guides) within existing courses, or more time to complete the programme.
- xiii.** Programmes are evaluated regularly.
- xiv.** The institution has a reliable system of costing programme and course development.

4. COURSE DESIGN

The course curriculum is well researched, with aims and learning outcomes appropriate to the level of study; content, teaching and learning and assessment methods encourage the achievement of the aims and learning outcomes; there is an identified process of development and evaluation of courses.

Course design is a process that defines the learning pathways learners have to follow to meet their needs as well as the needs/aims of the course.

Elements of the criterion

- i.** The course is structured to support independent learning and meets the requirements of the programme.
- ii.** The course design has a balance of content, pedagogy and technology.
- iii.** Where e-learning is used, it is ensured that systems, technologies and support arrangements provide an effective platform for quality delivery.
- iv.** The institution has a standing policy on reviewing the effectiveness of systems and procedures for the designing, approval and accreditation of courses.
- v.** Notional hours for courses are clearly defined in line with national policy.

5. COURSE

MATERIALS

The content, assessment, and teaching and learning approaches in the course materials support the aims and learning outcomes; the materials are accessibly presented; they teach in a coherent way that engages the learners; there is an identified process of development and evaluation of course materials.

Course materials mediate the teaching and learning process in distance education, and they need to be developed by experts, supplied on time to learners and revised regularly to keep them up to date with changes in knowledge and learner needs.

Elements of the criterion

Print-based course materials

- i.** Clear procedures are in place for the development, dispatch and timely provision of high-quality learning materials to give learners enough time to use the materials before examinations.
- ii.** Course materials have a balance of knowledge, skills and values that are presented appropriately using relevant media.
- iii.** Course materials are designed in an accessible way. Access devices such as contents pages, headings, graphic presentation of information and layout all help learners.
- iv.** When designing course materials, the open schooling provider takes into account the special needs of learners with disabilities.
- v.** Course materials are periodically reviewed to keep them up to date with changes in knowledge and learners' needs.
- vi.** Materials are developed by people with expertise in ODL and are subjected to rigorous quality reviews before use by learners.

**5. COURSE
MATERIALS**
continued

- vii.** The content of the materials is accurate, up to date, relevant to course aims and outcomes and sensitive to the multicultural realities of the context.
- viii.** The materials are based on sound learning theories and lead learners to develop their knowledge rather than simply memorise facts.
- ix.** While the provider holds copyright for course materials developed by employed or contracted staff, the individual author's intellectual property rights are also respected.
- x.** Materials actively engage learners during the learning process.
- xi.** There is a clear house style for materials development.

Multimedia course materials

- i.** If web-based courses are used, the site should be navigable, the sitemap should have clearly marked links and the different elements should integrate seamlessly with each other.
- ii.** Where possible, materials should be multimedia resources for ease of adaptation and user friendliness.

6. ASSESSMENT

Assessment is part of the course design; formative assessment is an essential part of the teaching and learning process. Assessment is well managed with sufficient external moderation to meet the requirements of accreditation bodies.

Assessment is an integral aspect of the teaching and learning process and should be authentic enough to guide both learners and tutors.

Elements of the criterion

- i.** Due recognition is paid to assessment as the key motivator to learning and as an integral part of the teaching and learning process.
- ii.** A credible assessment system that regulates both internal and external moderation, and criteria for the appointment of moderators and use of moderator reports is in place.
- iii.** There are processes for the recognition of prior learning as well as diagnostic testing for appropriate placement.
- iv.** When designing assessment arrangements, and communication systems with tutors and other institutional stakeholders, the open schooling provider takes into account the special needs of learners with disabilities.
- v.** There is carefully scaffolded continuous formative assessment with timely constructive feedback that contributes to a supportive environment for learners throughout their course of study.
- vi.** Formative assessment prepares learners to meet the demands of the final summative assessment.
- vii.** The assessment strategy includes integrated assessment tasks in which a number of outcomes/or the content of a number of modules (in a single subject/ learning area) are tested in an authentic context.

6. ASSESSMENT
continued

- viii.** The range of outcomes for the final summative assessment is validly and reliably assessed.
- ix.** Weighting of examinations and continuous assessment (course work) is well regulated by clear policy that takes into account the rigour of each of these assessment processes.
- x.** Sound rules and regulations are in place to guarantee security procedures, disciplinary and appeals procedures, marking procedures, accommodating students who are ill and supplementary examinations.
- xi.** Effectiveness of the assessment policies, strategies and practices are reviewed regularly.
- xii.** Moderation strategies and processes are clearly defined.
- xiii.** Policies and systems that take into account the unique needs of learners with disabilities are in place.

7. LEARNER SUPPORT

Learners have a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at a distance, contact tutoring, assignment tutoring, mentoring where appropriate, counselling (both remote and face-to-face) and the stimulation of peer support structures.

The success of open schooling depends heavily on the quality of support given to learners; a healthy learner support system creates a healthy learning environment for open school learners.

Elements of the criterion

- i.** Learner support is conceptualised as part of the course design with methods selected to suit the activities and outcomes, including appropriate learning through social interaction.
- ii.** Learners with special needs are adequately catered for in the learner support services of the provider.
- iii.** Particularly for younger learners, the learning environment helps learners develop the necessary discipline for increasingly independent learning and good work habits; for older learners, peer support and collaborative learning are available.
- iv.** The level of support is dependent on the age and entry level competence of the learners, and may vary for different types of learners in the programme and/or at different stages of the programme.
- v.** To provide an adequately supportive learning environment the existing structures and resources of the education system and the community are used as much as possible.
- vi.** Each learner is linked to an appropriate tutor for mentoring, assignment tutoring and help in understanding the materials.

7. LEARNER SUPPORT
continued

- vii.** Subject-specific tutors are trained in techniques to mediate the course material, rather than re-teach the content of the curriculum. This is particularly important if teachers from conventional schools are employed as open school tutors.
- viii.** A contract (covering, for example, role, deliverables and payment) is entered into with tutors, and attendance and performance are monitored with appropriate sanctions and rewards.
- ix.** Feedback from tutors informs ongoing improvement of the programme, materials, assessment and learner support.
- x.** Different kinds of tutorials are provided for different students, for both remedial and enrichment purposes. Tutorials are for fast learners who need enrichment in various areas of learning as well as learners who need their learning reinforced.
- xi.** Available technology is used to enhance the quality of learning and learners are sufficiently supported to make maximum use of the available technology.

8. HUMAN RESOURCE STRATEGY

The staff structure and the roles and key performance areas, experience and qualifications are all appropriate for the education and training services provided; staff development programmes equip staff to perform their roles and tasks effectively.

Open schooling relies on the services of core full-time staff and support from qualified, motivated and directed part-time staff. Striking the right balance between the two categories of staff is critical in open schooling.

Elements of the criterion

- i.** A clear recruitment strategy that ensures suitably qualified and experienced staff are appointed is in place.
- ii.** An effective performance management system is in place and benefits every member of staff in the open school.
- iii.** The staff structure includes all the key personnel to ensure that the institution carries out its services efficiently enough.
- iv.** There are sufficient tutors/mentors, usually employed on a part-time basis to meet the individual needs of learners.
- v.** Staff are trained, monitored and supported for the specialised roles and tasks they perform in the organisation.
- vi.** There is a clear induction policy for new staff who join the organisation to acquaint them with the school's work processes and procedures.

**9. MANAGEMENT
AND
ADMINISTRATION**

There is effective, transparent and democratic management of communication and information as well as human and material resources; efficient administrative systems support the activities of the educational provider; the educational provider is functionally sound and can make reliable educational provision.

The virtual nature of the open school creates a need for decentralising management and administration roles, and for coordinating these distributed roles efficiently enough to harmonise all institutional activities that take place in the dispersed sites.

Elements of the criterion

Accountability and governance

- i.** There are clear lines of accountability within the open school and its governing structures, and between the governing structures and the community.
- ii.** Proper accountability mechanisms and guidelines are in place to ensure proper governance systems.
- iii.** Staff, learners and external stakeholders are represented on governance structures.
- iv.** Mechanisms are in place to prevent staff from using their position of power within the institution to generate extra revenue for personal benefit or double payment for the same work.

Management of communication

- v.** There are effective systems for communication with stakeholders.
- vi.** Enquiries, complaints and general correspondence are dealt with quickly and clearly within a structured administration system.
- vii.** The enrolment procedures/guidelines include provision of accurate, helpful information to prospective learners.

**9. MANAGEMENT
AND
ADMINISTRATION**
continued

Management of the curriculum

- viii.** The enrolment guidelines include provision of accurate, helpful information to prospective learners and registration information.
- ix.** Production and delivery of course materials are in accordance with a course production schedule. Where existing systems prove inefficient, creative alternatives are considered.
- x.** There are systems to organise decentralised support for remote groupings of learners, allocation of tutors and the location of suitable sites of learning.
- xi.** There are clear procedures to receive, record, process and turn around assignments. The turnaround time is kept to a minimum.
- xii.** There are systems of managing examination papers, processes and results in a manner that maintains the credibility of the entire examination systems of the school.

Management of information

- xiii.** Learners' records (e.g., contact details and assessment results) are detailed, up to date and accessible to tutors, academic staff and administrative staff.
- xiv.** Tutor records (e.g., qualifications and experience) are detailed for each tutor and are available to tutor-monitors.

**9. MANAGEMENT
AND
ADMINISTRATION**
continued

- xv.** Records of course results and other management information are analysed to:
- give completion rates for each group of learners;
 - identify learners at risk;
 - identify incentives for learners.
- xvi.** Important indicators like pass, throughput and retention rates are monitored.

Management of facilities and equipment

- xvii.** Facilities and equipment accommodate all learner profiles (they are inclusive).
- xviii.** Equipment and facilities are well managed and maintained and secure against theft or damage.
- xix.** There are emergency methods of communication for use in the event of a failure of the primary channel of communication.
- xx.** Staff and learners are trained in the use of the equipment, facilities and communication and information systems.

Management of finances

- xxi.** Proper budgetary processes are in place to ensure that the allocation of resources reflects the goals, values and principles of the educational provider.
- xxii.** Financial procedures (like handling fees, orders, accounts, receipt of external funds and part-time and full-time salaries) are known and adhered to.

**9. MANAGEMENT
AND
ADMINISTRATION**
continued

- xxiii.** Budgetary procedures are in place to deal with the allocation of resources and monitoring of expenditure. Budgeting procedures are flexible enough to promote and enable constructive experimentation in design and delivery methods.
- xxiv.** Proper evaluation systems are in place to compare estimated goals and budgets with actual achievements.
- xxv.** There are clear and concise internal and external auditing procedures.
- xxvi.** Fees are pegged at levels that allow learners from disadvantaged socioeconomic backgrounds to access the educational services of the open school.
- xxvii.** Financial aid and information about criteria for its allocation are provided for learners, external funding and donations permitting. Information about financial aid is openly available to all learners.

10. COLLABORATIVE RELATIONSHIPS

In the interests of cost-effective provision of education and training, collaborative relationships are formed and collaborative projects are undertaken wherever possible.

Open schools should be proactive and innovative in forging collaborative relationships through networking with significant stakeholders.

Elements of the criterion

- i.** Open schooling requires collaborative relationships with key stakeholders like parents and other community carers, governmental and non-governmental education providers within and outside the country, and the corporate world for:
 - Sharing existing facilities such as libraries, ICT facilities, learning centres, human resources, health facilities and counselling services, examination centres.
 - Sharing existing courses, jointly developing new courses and learning materials, peer reviewing each other's performance, jointly delivering programmes, collaborating in research.
 - Facilitating workplace learning.
 - Resource mobilisation and support.
 - ii.** Affiliate membership of relevant associations and forums is encouraged.
 - iii.** There are collaborative relationships with other ODL institutions with similar mandates.
-

11. QUALITY ASSURANCE

There is a quality assurance framework that integrates policy and practice, and that informs a clear cycle of planning, implementing, monitoring, reflecting and acting to ensure that learners' and staff's needs as well as the needs of other stakeholders are met.

Cultivating a culture of quality allows the diverse community of an open school, located in geographically different parts of a country, to share a common quality ethos.

Elements of the criterion

- i.** There is a clear quality assurance framework supported by clear quality assurance action plans.
- ii.** The institution ensures that daily activities are aligned with its mission, goals, principles and policies in relation to national and regional priorities.
- iii.** Internal quality assurance processes are articulated with external processes as laid down by the relevant national quality assurance bodies.
- iv.** There are clear routines, procedures and systems for quality assurance, and staff and learners are familiar with those.
- v.** There is a clear cycle of planning, development, documentation, reporting, action and review of policies and procedures within the institution.
- vi.** A quality culture is nurtured within the institution.
- vii.** Staff development is seen as fundamental to quality service provision.
- viii.** Staff, learners and other stakeholders are involved in the process of quality assurance and quality review.
- ix.** The institution engages in benchmarking against other similar institutions and uses appropriate monitoring and evaluation techniques to gather and analyse data to use as a basis for setting priorities and planning for quality improvement.

**11. QUALITY
ASSURANCE**
continued

- x. Mechanisms for monitoring learner participation and performance are designed into the technical platforms used in electronically delivered programmes. For example, systems may be designed to track:
- the time spent by different learners on components of the materials,
 - the sequence of choices made by learners in accessing web-based files or
 - learner participation in online discussions.

12. ADVOCACY AND INFORMATION DISSEMINATION

Education services provided by the institution are effectively and accurately promoted in a variety of ways.

Providers of open schooling should strive to be professional enough to fulfil the promises they make to potential clients.

Elements of the criterion

- i.** There is an advocacy strategy in place to positively influence ODL perception by the public.
 - ii.** There is accurate and sufficient publicity about programmes to enable potential applicants to make informed choices. Institutional advertisements are truthful and professional.
 - iii.** In the case of programmes using electronic methods, sufficient information is provided to the learner about access to technologies used in the programme, technical competence required and the nature and potential challenges of learning in the programme's technology-based environment.
 - iv.** Employers and others who enter into collective agreements regarding education or training have received sufficient and correct information about the aims, content and outcomes, entry requirements and implementation of the programme.
 - v.** Information dissemination strategies form part of the institution's management of information system and are subjected to institutional cyclical reviews.
-

13. RESULTS

The educational provider fulfils its mission and individual programmes achieve valid teaching and learning goals in cost-effective ways that have a positive impact on society and meet the needs of clients and national priorities.

Providers of open schooling need to constantly monitor their performance by collecting and analysing relevant data on programme relevance, delivery strategies and learner success.

Elements of the criterion

- i.** The educational provider is fulfilling its mission and is meeting the expectations of clients and the nation.
- ii.** Institutions of further studies (e.g., colleges and universities) as well as employers are satisfied with the quality of the graduates from the providing open school.
- iii.** Learners are achieving the intended outcomes specified by the provider in the design of the programme.
- iv.** Enough learners complete the programmes they enrolled for within reasonable time periods to justify the cost in time and person power for the design of the programmes, courses and learner support systems. Pass, throughput and retention rates are monitored and mechanisms are put in place for continuous improvement of these rates.
- v.** Feedback and results of the programme review/evaluation are used to improve the programme's design and delivery and to develop further educational expertise of academic staff.
- vi.** The administrative systems are informed by and meet the needs of learners and of staff involved in programme/course/support design and delivery.
- vii.** As much as possible, there is integration of learners with disabilities in the mainstream student body to avoid psychological isolation.

CHAPTER THREE

Case Studies

INTRODUCTION

This chapter presents nine case studies from open schools in different countries. They illustrate how some of the quality criteria defined in chapter two of this toolkit are used in practice and also how much effort institutions are putting into their attempts to uphold the quality of their services. Whilst there is a lot to learn from the experiences documented in the case studies, we encourage users of this toolkit to take into account their own contexts as they try to emulate this good practice. Users will recognise both facilitating and constraining factors, as well as gaps in the practices documented, and will be able to apply these factors to their own efforts at improving quality.

The case studies in this chapter are:

Case study 1: Programme and Course Development

Case study 2: Materials Development

Case study 3: Materials Development

Case study 4: Learner Assessment

Case study 5: Learner Support

Case study 6: Management and Administration

Case study 7: Quality Assurance

Case study 8: Advocacy and Information Dissemination

Case study 9: How to Set Up a Quality Management System in an Open School

Case study 9 is different from the others because it shows how a quality management system was instituted at NAMCOL, one of the most progressive open schools in the Southern African region. The case study relates the first-hand experience of a professional who was directly involved in the development of quality systems and processes in the college. It therefore gives invaluable guidelines to new open schools in terms of how they can first introduce and then develop a sound quality culture.

Materials development is illustrated by two case studies from two different institutions located on different continents and at very different stages of development in terms of institutionalising quality assurance systems in open schooling. We hope that both the similarities and differences between the two case studies will provide important lessons to other open schooling practitioners in terms of materials development. We urge readers to also compare the processes described in these two case studies with annexure A of case study 1 from NAMCOL, Namibia.

CASE STUDY 1: Programme and Course Development

A case study of programme and course development at NAMCOL
Jan Nitschke and Francine N. Keendjele,
Namibian College of Open Learning (NAMCOL)

1.0 INTRODUCTION

This case study outlines NAMCOL's programme development processes. It illustrates how the institution assures quality in the following criterion, as defined in chapter two of this toolkit.

Quality criterion

Subject to national prescriptions, programmes are flexible and designed with both national needs and the needs of prospective learners and employers in mind; their form and structure encourage access and are responsive to changing environments; learning and assessment methods are appropriate to the purpose and outcomes of the programmes. (3. Programme Development.)

Quality elements illustrated

- *Programmes and qualifications offered by an institution are aligned with the national qualifications framework of the country.(x)*
- *Programme development always starts with the learner profile and in open schooling we envisage three main categories: school-age children, out-of-school youth and adults.(i)*
- *Institutions can design programmes to suit the wide range of differences (e.g., age, entry level) of learners in the school.(vii)*
- *Programme development is a team exercise to integrate content/subject expertise, pedagogic expertise and technical expertise.(vi)*
- *Programme development is the integration of curriculum design, materials development, decentralised learner support and assessment.(iii)*
- *Programme development makes sure that resources are used appropriately and cost-effectively to suit the desired learning purposes and outcomes.(v)*
- *The provider ensures that the programme provides a learning pathway that leads to the relevant national qualification.(ix)*
- *Programmes are evaluated regularly.(xiii)*
- *The institution has a reliable system of costing programme and course development.(xiv)*

Although the college has developed and offered programmes at both secondary and post-secondary levels, the case study aims to pay special attention to the development processes for secondary education programmes. NAMCOL has a quality assurance (QA) policy that provides a framework for the management of the quality assurance processes and reaffirms the institution's commitment to the provision of quality programmes and services. The QA policy framework is based on principles of self-evaluation. The college uses a set of quality criteria adapted from the National Association of Distance Education and Open Learning in South Africa (NADEOSA). The policy operates through internal quality assurance audits, as well as inter-institutional (external) audits with BOCODOL. The programme development processes at NAMCOL are guided and regulated

by the institution's quality assurance policy. To help readers understand how programme development processes are quality assured at NAMCOL, we need to look first at the contextual background of the institution.

2.0 BACKGROUND

NAMCOL was established in 1997 as a state-supported educational institution with a broad mandate to develop and provide educational programmes for adults and out-of-school youth using a variety of open learning methods. The secondary education (SE) programme, NAMCOL's core focus, allows learners to earn their Junior Secondary Certificate (JSC or grade 10) and the Namibia Senior Secondary Certificate, Ordinary (NSSC(O) or grade 12). These courses are equivalent to those in the Namibian government schools. NAMCOL enrolls more than 28,000 new learners every year.

In addition, NAMCOL offers professional and vocational programmes, including:

- **Certificate in Education for Development (CED):** A two-year distance education programme designed to meet the professional development needs of adult educators, extension agents and community development workers. It also helps in honing adult education skills.
- **Certificate in Local Government Studies (CLGS):** A tailor-made one-year distance education study programme for capacity-building initiatives of regional councils and local authorities.
- **Commonwealth Diploma in Youth Development Work (CYP):** A two-year distance education programme designed to teach youth workers practical skills to improve their effectiveness in youth development work. It will also prepare learners as practitioners in aspects of youth education.
- **International Computer Driving Licence (ICDL):** An internationally accredited certificate that certifies one's ability and competency to

use a computer and its most popular applications. It is designed specifically for those who wish to gain a benchmark qualification in computing to enable them to develop their IT skills and enhance their careers.

- **English Communication Course (ECC):** Aims to take the English communication skills of learners to a level where they can communicate and study more effectively through the medium of English and, therefore, achieve greater success in their studies.

NAMCOL also implemented the following new programmes in 2010:

- **Certificate in Early Childhood Development (CECD):** Aims to provide appropriate training for CECD students, so that all preschool children in Namibia have access to well-trained staff who offer suitable and appropriate services at early childhood development (ECD) centres. (March 2010.)
- **Diploma in Education for Development (DED):** Aims to allow CED graduates to further their studies in the field of community development and related studies. (March 2010.)
- **Certificate in Business Management (CBM):** Aims to address the need for business development skills amongst grade 12 school-leavers and existing entrepreneurs. (March 2010.)
- **Certificate Programme:** Working with Children, Families and Communities Affected by HIV/AIDS, Conflict, Poverty and Displacement in Africa. (July 2010.)

NAMCOL's division of Programmes and Materials Development (PMD) is responsible for planning new distance education programmes and materials, drafting and editing all study materials, designing user-friendly study materials, and dispatching study materials to regional offices. The department has developed systems that ensure the effective and efficient development and delivery of programmes that are suitable for distance education and relevant to the needs of learners.

3.0 PROGRAMME DEVELOPMENT AND COURSE DESIGN AT NAMCOL

The college relies largely on educational and market research when choosing which new programmes to develop, and continuous evaluations influence which changes will be made to existing programmes. In addition, the college looks at the strategic development plan and listens to the needs expressed by its educational partners when considering new programmes. Once the decision is taken to develop a new programme, the questions are: where to start and what to do?

3.1 Programmes and qualifications offered by an institution are aligned with the national qualifications framework of the country.

Programme development and course design have specific criteria. The Namibia Qualification Authority (NQA) requires the institution to submit programmes for evaluation and accreditation, so NAMCOL's professional programmes are accredited by the NQA. NAMCOL is also currently registering its professional programmes with the National Qualifications Framework (NQF), which is relatively new in Namibia (introduced in 2007).

The National Examinations, Assessment and Certification Board (NEACB) of Namibia, under the auspices of the Ministry of Education (MoE), have laid down requirements for registration to sit the grade 10 (JSC) and grade 12 (NSSC) examinations. Accordingly, courses offered by the college are subject to NEACB admission requirements.

NAMCOL's processes for its secondary education (SE) are different from those for its professional programmes (PP). The institution follows the government curriculum and national syllabi for the SE programmes, but designs its own curricula and syllabi for PP. Qualified teachers are used as writers, content editors and language editors. NAMCOL's materials are included in the MoE catalogue of textbooks for use by schools and other educational institutions, and the MoE intends to register the NSSC at level 3 of NQF in the near future.

3.2 Programme development always starts with the learner profile and in open schooling we envisage three main categories: school-age children, out-of-school youth and adults.

NAMCOL targets out-of-school youth and adults who could not be accommodated in the conventional school system for various reasons. The majority of NAMCOL learners for SE programmes are out-of-school youth who are ‘pushed out’ of formal/conventional schools and unemployed, and most of the learners on the professional programmes are young adults who are working as, for example, community workers and regional and local government councillors. Learners live in both rural and urban areas.

As English is not the first language for most of the learners, they struggle with it as a medium of instruction. In remote areas English is a third or fourth language for learners and they mainly use vernaculars as their medium of communication even in the teaching and learning environment.

The following are some of the other challenges faced by the NAMCOL learners:

- Lack of finances
- Family responsibilities
- Job responsibilities for those employed
- Lack of support from family and work responsibilities
- Community engagement, e.g., funerals
- Limited contact with tutors.

Table 1, below, shows a typical NAMCOL learner profile. This profile has remained relatively unchanged for the past few years.

AGE CATEGORY	FEMALE	% FEMALE	MALE	% MALE	TOTAL NUMBER
<16	5	50.0%	5	50.0%	10
16	4	66.7%	2	33.3%	6
17	78	67.8%	37	32.2%	115
18	601	64.6%	329	35.4%	930
19	2,112	63.1%	1 237	36.9%	3,349
20-24	10,543	63.1%	6,177	36.9%	16,720
25-29	3,090	68.5%	1,424	31.5%	4,514
30-34	1,269	75.0%	423	25.0%	1,692
35-39	493	76.7%	150	23.3%	643
40-44	180	72.6%	68	27.4%	248
45-49	77	74.0%	27	26.0%	104
50-54	9	69.2%	4	30.8%	13
55-59	2	28.6%	5	71.4%	7
60+	14	50.0%	14	50.0%	28
TOTAL	18,477	65.1%	9,902	34.9%	28,379

Table 1: Registered learners by gender and age, 2008

Source: www.namcol.com.na – statistical digest 2008

The gender distribution in total – two female students for every male – mirrors the trend in formal schools where more females were enrolled over many years, even before NAMCOL's establishment. Most learners fall in the age bracket 18–34 years.

3.3 Institutions can design programmes to suit the wide range of differences (e.g., age, entry level) of learners in the school.

The SE programmes, JSC (grade 10) and NSSC (grade 12), are offered through either contact or non-contact modes of study. NAMCOL provides opportunities for adults and out-of-school youth to further their education and earn grade 10 or 12 qualifications if they cannot get admission to the formal education system or if they wish to pursue their studies without neglecting their regular responsibilities at work or to their families. These programmes remain NAMCOL's core business.

For SE programmes, a learner must provide proof of having passed the same or similar subject at a lower grade to enrol for the specific subject(s). This applies to enrolment for both JSC and NSSCO learners.

The Professional and Vocational Programmes have different entry requirements. Three are listed below as examples, but more information is available in the NAMCOL prospectus.

- **Certificate in Education for Development (CED):** Grade 12 (standard 10) certificate with 20 points on the Ministry of Education's points scale plus one year's field experience in community development work; or grade 10 (standard 8) certificate with 23 points on the Ministry of Education's point scale and at least three years' experience in community development work.
- **Diploma in Education for Development (DED):** The Certificate in Education for Development (CED) offered by NAMCOL.
- **International Computer Driving Licence (ICDL):** Requires no prior knowledge of information technology or computer skills.

3.4 Programme development is a team exercise to integrate content/subject expertise, pedagogic expertise and technical expertise.

The chart in Annexure A shows that the programme manager, who takes overall responsibility for programme development, is surrounded by a team of experts including programme developers, course writers, content editors and language editors. Thus, programme development at NAMCOL is a team exercise.

3.5 Programme development is the integration of curriculum design, materials development, decentralised learner support and assessment.

Some important questions to answer are: How do we guide this process? Where is the issue of content addressed? What does the curriculum framework state?

All SE learners in the country follow the same curriculum accepted by the National Examinations, Assessment and Certification Board (NEACB). The National Institute for Educational Development (NIED) is responsible for developing and implementing the national curriculum. NAMCOL enjoys statutory representation on various curriculum panels that review curricula, instructional materials, syllabi and assessment schemes. Using the same curriculum gives learners the flexibility to transfer between NAMCOL and the formal system without being penalised. In 2008, about 12% of learners re-entered the formal system at grade 11 level after successfully completing grade 10 through NAMCOL.

As pointed out above, NAMCOL designs its own curricula for its Professional Programmes. One of the key considerations is the curriculum framework, which covers the following aspects:

- Introduction (will give information about a programme's origins)
- Rationale (justifies the need for a programme)
- Duration
- Objectives

- Particular features
- Teaching and learning strategies
- A summary of learning content
- A detailed outline of learning content (themes and topics) with learning outcomes
- Assessment
- NQF level
- Progression rules (if duration is more than a year)
- Articulation.

Important aspects of the curriculum framework are national requirements, like NQA accreditation, and also the possibility of progression within NAMCOL or to other institutions for further studies (articulation).

Articulation with programmes offered by other institutions is one of the biggest challenges. However, it becomes easier if the programme is registered on the national qualification framework (NQF). The process of consulting with relevant stakeholders – internal and external – is another important aspect that surfaces in programme development. This is to ensure that the programme addresses market needs.

In the course design stage the following aspects need to be addressed:

- Summary of content
- Actual content
- Duration
- Learning outcomes
- Teaching and learning strategies
- Assessments.

The learning and teaching strategies and learner support are all important aspects of this process. It is important that the institution is clear about how learners will be supported.

After the programme is developed it goes through the approval stages. Key players in this process are NAMCOL's Academic Advisory Team, the Professional Programmes Advisory Committee, NAMCOL's Management Committee and the Board of Governors.

3.5.1 Materials development: supporting independent learning

For a detailed outline of the materials development process NAMCOL readers are referred to Annexure A of this case study.

Although the institution uses different media in course delivery, print remains the primary teaching medium. The *House Style Manual*, developed by the Programmes and Materials Development division, outlines various steps in the production process of print-based materials. Key procedures include planning, development, writing, production, packing and dispatch of instructional materials. Guidelines for the development and implementation of an e-learning strategy are stipulated in 'Implementing an e-Learning Strategy', a document developed jointly by NAMCOL and SAIDE, with financial support from UNESCO. This guideline is available on the websites of NAMCOL (www.namcol.com.na) and UNESCO (www.unesco.co.uk).

3.5.2 Learner support

Learner support has generally been defined as a range of resources (human and non-human) to help distance education learners. It is believed that effective learner support services and systems are very important elements of a distance education programme. NAMCOL has tailor-made its learner support services and systems to answer its learners' needs.

3.5.3 Learner support for SE programmes

NAMCOL offers a basic package of services to all learners enrolled for SE (JSC and NSSCO) subjects:

- Five-hour orientation workshop at the beginning of the academic year.
- Copy of the NAMCOL *Good Study Guide*.
- A full set of NAMCOL study guides and/or textbooks for each subject.
- Tutorial letters.
- Five hours of face-to-face tuition per week in each subject for JSC.
- Three hours of face-to-face tuition per week in each subject for NSSCO.
- Two week-long vacation workshops every year (for those learners who cannot attend the weekly tutorial sessions).
- Three assignments per subject per year.
- Self-supervised study halls (where available) and self-supervised study groups. Learners are encouraged to form study groups for each of their subjects and are provided with study halls or rooms to conduct their study meetings.
- Study-related counselling during the enrolment period and during the course of the academic year. This is offered by the heads of tuition centres, tutors and regional office staff.
- HIV and AIDS programmes and sessions at tuition centres. These are conducted by tutors and some UNICEF-supported facilitators in the regions.
- Resource centres and libraries. Learners have access to NAMCOL resource centres and other library facilities across the country. A reasonable number of learning materials, educational facilities and equipment are available for use by NAMCOL learners.

In addition to the above, learners have access to web-based reading materials (<http://www.namcol.edu.na>) and educational radio and television programmes on various radio and television stations. These programmes are developed with financial support from the Ministry of Education, and are screened on local TV

stations and aired on national, local and community radio stations during the academic year. Schedules are made available to learners and members of the public prior to the broadcasts.

3.5.4 Learner support for Professional Programmes (PP)

The Distance Education Coordinator and Learner Support Officer at Head Office are mainly responsible for providing learner support on a daily basis. In addition, six regional and sub-regional NAMCOL offices across the country also provide learner support services in their designated regions.

- **Tutors and tutor-markers:** In addition to the full-time staff, part-time tutor-markers are recruited for each subject/module. Tutor-markers are the main examiners and are responsible for setting and marking assignments as well as facilitating workshops/contact sessions. Three week-long workshops are conducted during the academic year: orientation workshop, content-focused workshop and examination preparation workshop.
- **Use of telephones, freephone helpline, e-mail and short message service (SMS):** NAMCOL uses these technological systems to make its learner support services more effective and to communicate urgent information to learners and other customers. These systems have proved to be an effective means of communication between the college and its customers.

3.5.5 Assessment

The course design allows for both formative and summative ways of assessment. The learner study packs include three assignments per subject which learners are required to complete. These assignments are one way for tutors and learners to assess how learning is progressing. Assignments are set annually by external moderators and are marked by local tutors; 10% of each batch of marked assignments is reviewed by the moderators. Quality control measures are set out in a guidelines document provided to moderators to ensure that the correct grades are recorded on the learner record database. Marks from assignments contribute to

the final mark at the junior secondary level. However, there are exceptions at senior secondary level. Learners studying languages also have an oral assessment. Learners studying agriculture at senior secondary phase must complete five practical assignments in addition to the three written assignments.

3.6 Programme development makes sure that resources are used appropriately and cost-effectively to suit the desired learning purposes and outcomes.

3.6.1 Available resources, including multimedia strategies

NAMCOL uses the formal school infrastructure for its SE contact sessions. A centre can operate as a tuition centre if enough learners enrol to justify running a specific class. At least three groups of 30 learners are needed for the centre to operate as a tuition centre. Learners who enrol at a centre that fails to meet the requirements to become a tuition centre are advised to approach other centres for tuition or to opt for the non-contact mode. Their original centre will help them with this.

In addition to print-based materials and tuition, learners have access to multimedia like radio, video and web-based materials. To produce multimedia content, the institution needs facilities like a fully equipped recording studio, digital cameras, internet access and other information sources, and the staff need to be well trained. The development of the multimedia content is also facilitated through a team approach. Details on multimedia support are provided in the e-learning guide on NAMCOL's website.

3.6.2 Namibian Open Learning Network Trust (NOLNet)

Thanks to NOLNet, open learning institutions can combine their resources and minimise any duplication of services and resources. There are 45 NOLNet centres across the country. NOLNet is a partnership of all the state-funded Open and Distance Education institutions in Namibia. It promotes cooperation amongst

institutions and their equitable sharing of resources for mutual benefit. One of its objectives is ensuring access for the students of all signatory institutions to the facilities and services of each institution through the establishment and expansion of a national network of open learning centres.

Any learner who is registered with NAMCOL, UNAM, Polytechnic and NIED may use the services and resources at the NOLNet centres. The centres provide internet access, fax facilities, printing facilities, word processors, books, multimedia and several other facilities. A minimal payment is required to use the telephone, fax and photocopy facilities.

3.7 The provider ensures that the programme provides a learning pathway that leads to the relevant national qualification.

NAMCOL strives consistently towards creating pathways for its learners to access higher-level qualifications at NAMCOL and other institutions. Therefore, grade 10 learners can re-enter formal schools or continue at NAMCOL for grade 12 or certain Professional Programmes; grade 12 learners can access Professional Programmes at NAMCOL or progress to other institutions; the Post-secondary Certificate Programmes at NAMCOL offer entry into diploma programmes at NAMCOL, when available (like DED), or at UNAM (like CLGS graduates, who will be allowed to register for the first year of the UNAM Diploma in Local Government Studies). Negotiations with UNAM for recognition of more Professional Programmes are at an advanced stage.

3.8 Programmes are evaluated regularly.

It is essential to plan the monitoring and evaluation (M&E) system as early as possible in the development process. There is a set of processes and procedures for programme development and course design which are revised annually to ensure that they remain effective and efficient. (See Annexure A for detailed information.)

3.9 The institution has a reliable system of costing programme and course development.

After research on 'costing NAMCOL into the future', NAMCOL developed formulae and templates to calculate costs for programmes and materials development. Appendix B at the end of this toolkit shows a cost template that the college uses to analyse the costs involved in programmes and materials development. It is important to realise that not all costs will be recovered in the short term.

The following costs are determined through the carefully designed costing template that is used at NAMCOL to determine the cost of materials development and production. (See Appendix B.)

- Committed costs, which include the costs of full-time staff to develop study guides and set assignments,
- Flexible costs, which cover the cost of appointing part-time (or contract) staff to develop study guides and set assignments,
- Indirect common costs, calculated at 50% of the total administrative costs, and
- Product costs, for both the study guides and the assignments.

The total development cost is calculated as the sum of the committed, flexible and indirect common costs. Unit cost is calculated by dividing the total development cost by the product of the number of learners and the number of years of the programme. The total unit cost is the sum of the unit cost and the production cost.

Other cost items that need to be considered are programme delivery and course maintenance costs, remuneration of tutors and tutor-markers, venue cost and subsistence and transport.

4.0 CHALLENGES AND LESSONS LEARNED

A large proportion of NAMCOL learners came from formal schooling with its daily contact with teachers and fellow learners. NAMCOL is a completely new environment for them and requires high levels of discipline and the ability to work independently, which many learners may lack. This frustrates some learners, and frequently their reaction is to drop out of the programme. Ongoing counselling and academic development (including study skills) are key ingredients for retaining learners.

NAMCOL's overall strategy in ICTs is incremental, since the college has acknowledged the following limitations and challenges inherent in the use of multimedia resources in the Namibian context:

- A lack of infrastructure and digital equipment poses significant challenges with regard to access. The current funding is inadequate to cater to all needs, and this complicates initiatives to upgrade, purchase and replace equipment.
- The current reliance on national broadcasters (especially television broadcasters) has certain risks for costs and guaranteeing time slots.
- NAMCOL lacks the skills and capacities necessary to embark on full-scale multimedia content development. Although staff benefit from capacity-building initiatives arranged by NOLNet's eLearning Centre, so far only two staff members have qualified as accredited e-learning facilitators. The college relies on external support to equip staff for full-scale multi-content development.

As at any other educational institution, a learning management system is crucial for improved learner support. However, learners' and tutors' limited access to technology means this can be a challenge.

Programmes development and course design require human resources, especially subject experts. This is a serious challenge for NAMCOL, and so part-time staff are used as course writers and editors. However, many of these part-time staff also have full-time jobs elsewhere and so cannot offer the commitment required

to deliver new programmes on schedule. For example, the lead time for new programme development is two years, but delays and a shortfall of content experts mean it sometimes takes much longer.

NAMCOL's SE programmes are subsidised by the government, so course fees are kept to a minimum and decided on by the Namibian Cabinet. One key principle in setting fees is that they should be set at a level that ensures long-term sustainability for the college. The current fee structure and grant have so far only enabled the college to provide basic services, which is a worrying factor for the long-term sustainability of the college.

Learners' inability to pay course fees presents a critical challenge to NAMCOL. Only 1% of the college's learners do any paid work. The general public views NAMCOL fees as exorbitant, partly because of Namibia's low average income and partly because they must be paid in full at the time of enrolment. To ensure that NAMCOL fees remain affordable, increases are linked to inflation. That also poses a challenge, though, because at times of high inflation there is the risk that increases may not keep pace with the actual cost of providing the service. Any increase in learner fees might lead to a decline in subject enrolments, as learners will opt to enrol for fewer subjects.

Over-dependence on government funding is also a challenge. If the government decides to reduce the subsidy allocation for any reason, the college will not be able to deliver services effectively to its learners, let alone develop new programmes. NAMCOL started with some income-generating initiatives to increase its revenue base through its bookshop and computer-based learning centre; its biggest challenge now is to become self-sustaining in the long term.

5.0 CONCLUSION

This case study represents NAMCOL's programme development and course design processes. It is evident that programme development, course design and materials development become interlinked and some aspects cannot be handled separately

(without touching on others). The quality elements as stipulated in this QA toolkit are used to highlight the main areas that are quality assured in programme development and course design. Although NAMCOL has come a long way in developing quality systems, there are still areas that need further improvement.

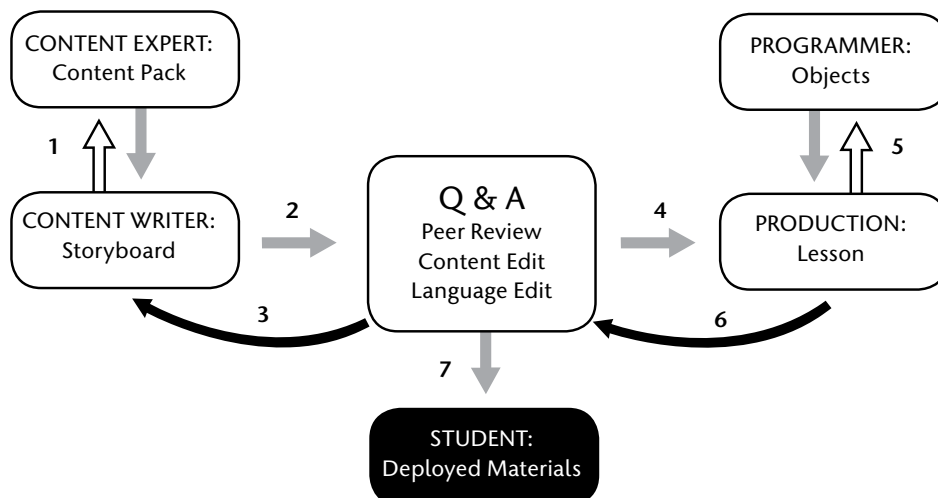
We hope that others in ODL will find this case study valuable in their own quest for quality programme development and course design.

[Note: Part of this case study was drawn from an article written by NAMCOL's director, Mr H.V. Murangi, called 'Open Schooling in Educational Transformation: The Case of the Namibian College of Open Learning'. This article was published by the Commonwealth of Learning, Vancouver, 2009, as 'Perspectives on Distance Education. Open Schooling in the 21st Century', edited by Dominique A.M.X. Abrioux and Frances Ferreira.]

6.0 REFERENCES

NAMCOL, UNESCO, SAIDE (2005). 'Implementing an e-Learning Strategy: A guide for South African institutions'. Windhoek, Namibia.

Annexure A: Materials Development Process

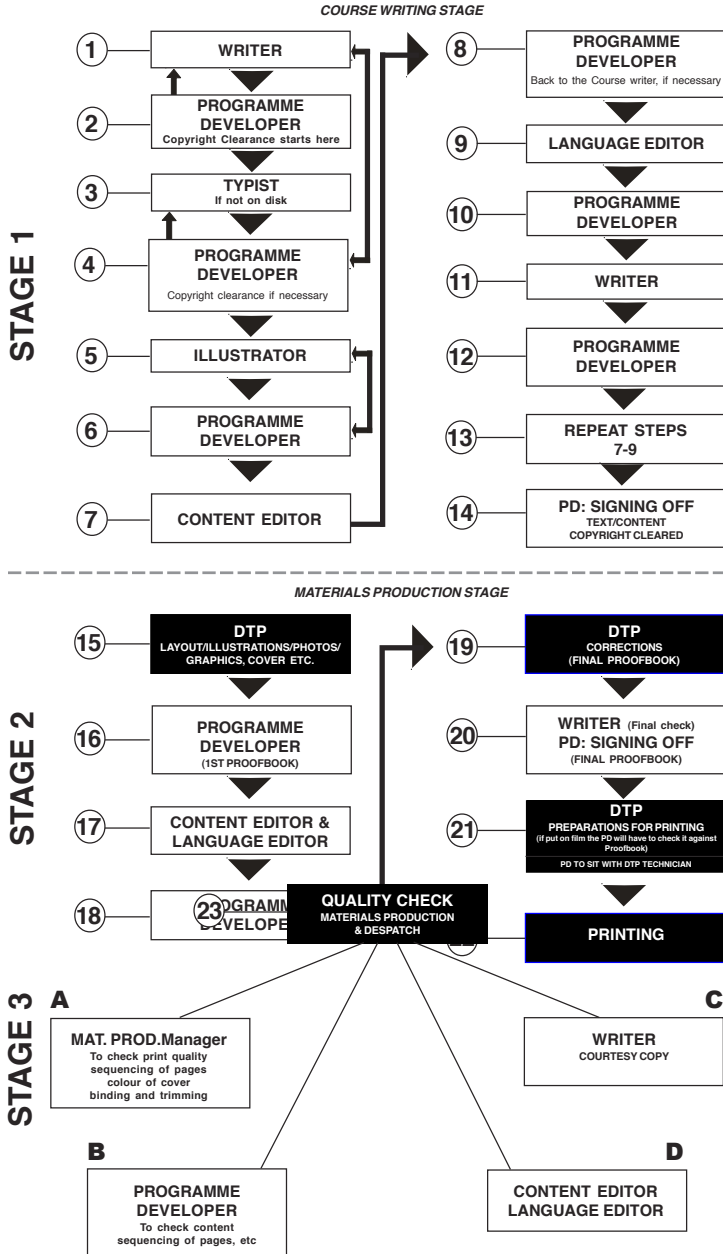


QA's Position in the Work Flow

The following flow diagram is an indication of the path for the materials development process and identifies the position of the QA team:

- Step 1: Content experts provide lesson frameworks to storyboard writers indicating important content areas to be covered in the lesson.
- Step 2: Storyboard writers search for additional content on the internet and in other resources, consult the content packs and look for ways to add value to the print-based modules. They then compile the storyboards.
- Step 3: The QA (including content and language experts) team reviews the storyboards and recommends changes. Storyboard writers consider changes and implement them.
- Step 4: The production team converts storyboards into web-based lessons, inserting video clips, drawings, pictures and animations and program interactions.
- Step 5: External programmes create sophisticated objects and animations. The production team reviews lessons on basis of recommendations from programmers.
- Step 6: QA team does final review and quality check.
- Step 7: Materials are deployed for learners and educators to use.

BASIC STEPS IN THE MATERIALS DEVELOPMENT PROCESS



CASE STUDY 2: Materials Development

A case study of the course development process
at the Emlalatini Development Centre (EDC)
Nozipho Ziyane with Nokuthula Vilakati

1.0 INTRODUCTION

This case study addresses materials development, a key aspect of open schooling. It illustrates good practice in four of the quality elements of the criterion on materials development, as defined in chapter two of this toolkit.

Quality criterion

The content, assessment, and teaching and learning approaches in the course materials support the aims and learning outcomes; the materials are accessibly presented; they teach in a coherent way that engages the learners; there is an identified process of development and evaluation of course materials. (5. Course Materials.)

Quality elements illustrated

- *Clear procedures are in place for the development, dispatch and timely provision of high-quality learning materials to give learners enough time to use the materials before examinations.(i)*
- *Course materials have a balance of knowledge, skills and values that are presented appropriately using relevant media.(ii)*

- *Course materials are designed in an accessible way. Access devices such as contents pages, headings, graphic presentation of information and layout all help learners.(iii)*
- *Course materials are periodically reviewed to keep them up to date with changes in knowledge and learners' needs.(v)*

Emlalatini Development Centre (EDC) is a dedicated distance education institution in Swaziland that targets out-of-school youth and adults, employed and unemployed, who cannot enrol in conventional schools because of various commitments. Because of the large numbers of learners in conventional schools, Swaziland's policy does not allow learners to repeat Junior Certificate (JC), International General Certificate of Secondary Education (IGCSE) or Swaziland General Certificate of Secondary Education (SGCSE), so anyone who fails at these levels is left with no alternative but to either enrol with EDC or attend evening classes in selected conventional schools. EDC has experienced a change in its learner profile since 1992. Previously most of the learners were adults, but now adults make up only 22% of the learners, with the remaining 78% being out-of-school youth. The majority of the youth are young learners who have either failed secondary school examinations and come to EDC to improve their grades or who had dropped out of the conventional school system (DLA report, March 1995).

EDC prepares learners for the same examinations that are offered in the conventional schools and ideally it should offer the whole range of subjects offered in the conventional system. This, however, is often not the case due to resource constraints. Thus, learners often end up taking completely new subjects instead of repeating subjects they have failed in the past.

This case study shows how materials development is handled at EDC. Before explaining the quality assurance processes and procedures that lie behind the production of high-quality materials, a brief background of the evolution of the centre is given.

2.0 BACKGROUND

Distance education in Swaziland started in the 1960s with Ephesus House, which aimed primarily to assist South African refugees during the apartheid era to continue with their education. It offered mainly junior secondary education and was established with financial and technical assistance from the Danish International Development Agency (DANIDA). Learners received study materials and a lot of face-to-face support during long residential sessions.

In 1972 the name Ephesus House changed to Swaziland International Education Centre (SIEC). At the same time there was a change in the target group. SIEC started admitting Swazi nationals who were eager to further their studies at secondary school level. In April 1978 the Swaziland government took over the institution, bringing it under the control of the Ministry of Education. The school became Emlalatini Development Centre (EDC). EDC is **committed to providing access to quality and affordable education to the youth and adults in Swaziland through distance learning.**

The centre's focus was redirected once more when the curriculum was expanded to include courses that were offered in conventional schools. To place its learners favourably and to ensure parity with their conventional counterparts, EDC learners sit the same examinations as learners in conventional schools. Courses for senior secondary learners were therefore developed. Today, EDC is the only institution in Swaziland that offers education to JC, IGCSE, SGCSE and Higher International General Certificate of Secondary Education (HIGCSE) levels, using the distance learning delivery mode. HIGCSE, which was introduced in 1992, is equivalent to the matriculation qualification. It was introduced because the only local university could not accommodate all the learners and they needed this qualification to enrol in South African universities and colleges. This trend has continued over the years and the overall enrolment of the centre is growing every year. The importance of supporting the many learners through high-quality learning materials cannot be overemphasised.

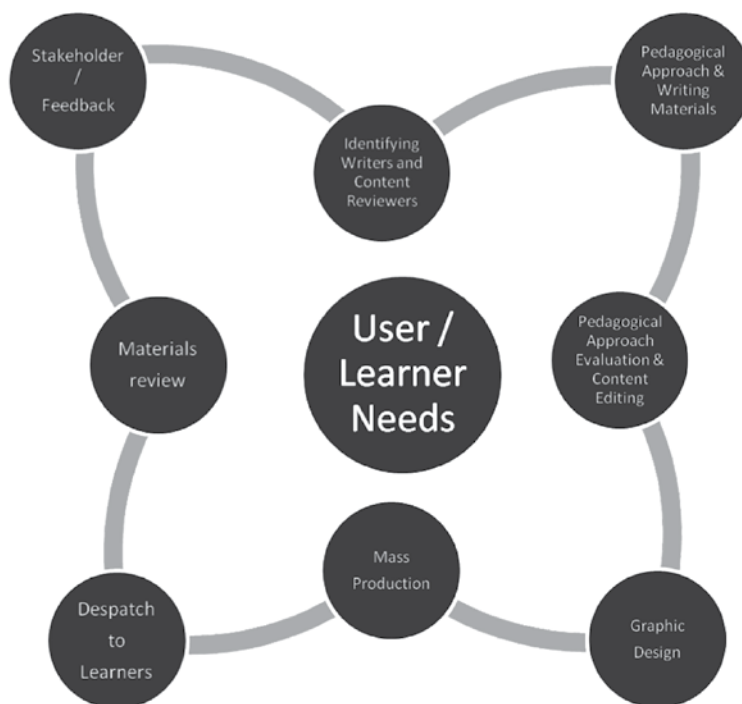
3.0 QUALITY ASSURING MATERIALS DEVELOPMENT

This section describes how EDC handles four quality elements: procedures and processes for the development and dispatch of materials, use of relevant media, pedagogical design of the materials to make them accessible, and review processes for the materials. At the centre of the EDC materials development process are the learners and their needs, which are mainly identified through learner profiles. Learners' needs influence EDC's approach to materials development, which is a pedagogical framework combining learning devices that are built into the learning materials to help identify the pedagogical approach used. EDC follows a tutorial-in-print approach to materials development, and the author is encouraged to make the content interactive by including diagrams and activities. According to Freeman (2005), the activity seeks to help the learner better understand the material being taught. The model of unit development consists of input-activity sequences. The rationale is that the material becomes a teacher-in-print to mimic a teaching and learning setting, whereby a teacher gives some input and then asks a learner a question or sets a learning task.

3.1 Clear procedures are in place for the development, dispatch and timely provision of high-quality learning materials to give learners enough time to use the materials before examinations.

EDC mainly uses print as a medium of instruction and it supplements this with face-to-face tuition. EDC has well-established procedures for producing a workbook, which is the main mode of delivering distance learning.

3.1.1 User-based material development process at EDC



Source: N. Vilakati

Developing study materials requires a combination of specialised skills and a lot of discipline and commitment from everyone involved. Course writing involves a number of people who work as a team and are willing to work extra hard and be deadline-conscious. The following are the key course team members in EDC's materials development process:

- Course writers
- Workbook editor
- Content editor

- Typists
- Graphic designers
- Production manager
- Printers

All these people must work together and coordinate their schedules for the process to flow smoothly.

3.1.2 Course writing

The course writer has to follow the user-based pedagogical model designed by EDC. The course writer ensures that the material is pedagogically sound, user-friendly and written in conversational style in a language suitable for the targeted learners; there should also be examples that the learners can relate to and, where necessary, illustrations. The courses at Emlaladini are developed by the subject tutors, who are recruited from the conventional schools. The editor and EDC's vice-principal are responsible for training the newly recruited tutors. First, the new tutors are given the existing workbooks to read through. Then they are trained on how to write for a distance learner and familiarised with the house style. The course writers are taught distance education principles and how DE is different from the conventional system. They are then given a model – either a current textbook or a template – to follow.

3.1.3 Analysis of student profile as part of materials development process

Before learners are enrolled, they are expected to fill in enrolment forms in which they state their age, highest level attained at school and location. This information usually influences the writing of workbooks. For example, the information will help the writer decide on the language level and the examples to be used.

The enrolment information helps the writer decide how many workbooks are required for the content, and how he is going to organise the workbooks so that they

are not too bulky. Bulky workbooks are a deterrent to the learner and writers need to develop reasonably sized workbooks. The information should appear in small chunks. This gives the learner a sense of accomplishment on the completion of each workbook, which is, of course, great motivation. The course writer decides whether to use the same illustration on the cover of all the workbooks, or to use different covers to reflect the content in each workbook.

3.1.4 Editing stage

A user-based approach to editing is followed when the manuscript is sent to the workbook editor. This editor acts as the 'eye' for the student. Because she does not specialise in all the subjects, she sees if she understands the lessons herself and draws the attention of the tutor to any sections she finds ambiguous and suggests where changes should be made. The editor also looks at language suitability, grammar and spelling as well as the smooth flow of the content amongst other things. The workbook editor checks if each lesson's objectives are clearly stated and if they are met in that lesson, if each activity is related to each objective, if the lesson teaches well, if the lesson is suitable for distance learners and if the instructions are clear. All this happens before the first draft of the manuscript is taken for typing. The editor also ensures that the style is interesting and varied to avoid monotony.

The editor constantly asks the following questions as she edits:

- Are the objectives clear?
- Are the set objectives related to each lesson?
- Does the text teach well?
- Does the lesson link to the previous one?
- Are the assessment activities aligned to the intended learning outcomes, objectives and teaching methods used in each unit?
- Is there feedback for learners to check their own knowledge, skill progression and competence?

- Are the set activities practical for distant learners who are expected to carry them out at home?
- Is the presentation interesting and varied?
- Is the language suitable?
- Are the instructions clear?
- Are the lessons entirely consistent?
- Can the typists follow the text?
- Are the icons properly positioned?
- At the end, is the workbook correct and ready for use?

3.1.5 Language and layout editing

The workbook editor also plays a crucial role in the course writing process as she gives guidance to the course writer, the typists, the production manager and the printers. She becomes the nucleus of the course writing process. As the representative of the learners, she must read the lessons as though she were a student. The editor has to keep in mind at all times the needs of the learners. She must also know the principles of distance education, the house style and how to write for distance learners as she will be expected to train new writers and ensure the continuing production of high-quality workbooks.

3.1.6 Content editing

A content editor is a specialist in a subject area. He is either a member of the subject panel or a lecturer in an institution of higher learning, and must be familiar with the syllabus and content. He plays a pivotal role in the production of the workbooks as he will ensure that the information is relevant and well written. However, often he is not familiar with distance education principles and knows very little about what distance education materials look like. This is why the workbook editor is so highly valued.

The content editor is shown the course outline to check that all the concepts are covered. He also checks that the content is accurate, relevant, timely and entirely consistent. As a subject specialist and possibly a panel member, the content editor is well versed with the syllabus. He makes a note of all the comments he would like to make and discusses them with the writer. This is then taken to the workbook editor who in turn takes it back to the typist to incorporate all the changes into the document. The content editor also checks that the tests are up to standard and the length of the workbook is reasonable.

The content editor is contracted by the institution and is paid by them on completion of the writing.

3.1.7 Typesetting

Typists take their instructions from the workbook editor. They typeset the manuscript following the house style and make corrections. For example, all workbooks are set in Arial and the font size is 12 for the body text, 14 for subheadings and 18 for unit headings. Bold, upper case or italic is used for emphasis. Once typing is complete, the manuscript is returned to the editor who again checks for typographical errors and takes it back to the typists for corrections. The manuscript is then returned to the course writer who makes further amendments before taking it back to the content editor who in turn passes it on to the workbook editor for printing and final production.

3.1.8 Graphic design

A graphic designer creates designs as requested by the course writer and workbook editor. EDC has no graphic designer and relies on outside designers. In the past we have also been assisted by a volunteer and by a designer from the National Curriculum Centre. Because these people have other commitments often they cannot produce the illustrations in a timely fashion. EDC then resorts to photocopying illustrations from books, with clear acknowledgement of the source.

3.1.9 Production and initial printing

The production manager follows instructions from the workbook editor on how many copies are required. He lays out the workbook and prepares a job card to hand over to the printers. He also calculates the quantity of paper, covers and binding required, calculates the size of the covers, and decides on its colour. The production manager is familiar with the printing process and will monitor the printing from start to finish. He will also monitor the quality of the print and will deliver a sample copy to the editor and the course writer so that they can check for any errors that can be corrected before all the books have been printed.

3.1.10 Final editing

From the typing pool, the document is returned to the editor and she and the course writer fit in the illustrations. The editor once again checks the document to see if all the expected components are there, such as a table of contents, and if the page numbers correspond with the unit and lesson pages, if the answers to exercises are there and correctly placed, if the tests are correctly placed, if the illustrations are clear and if the summary is available for all sections, so as to entice the reader. She also checks the workbook for its readability and the presentation. The final draft goes back to the course writer for a final check. It is then returned to the editor who then sends it to the production manager for printing.

3.1.11 Final production and dispatch stage

The production manager uses the enrolment numbers to decide how many workbooks to print for each course. The workbooks are printed on A3 paper, collated and saddle stitched. The institution found that saddle stitch was the only cost-effective method of binding, and it keeps the workbook intact for quite a long time. The workbook is then folded and handed to the stores person to dispatch to the learners.

After printing, the workbooks are handed over to the store person who is responsible for dispatching them to the learners. EDC follows the modular approach in

delivering the workbooks so that the learners complete each one before sitting the examination. At enrolment the students receive the first set of workbooks, which they will read through then complete the tests built into it before the second workbook is dispatched. This control measure has eliminated the past practice of learners receiving the whole set of workbooks at enrolment and sometimes juggling through them instead of working through them methodically. The records department plays a crucial role in recording the incoming and outgoing assignments, the marks obtained and also the workbooks posted to each student.

3.2 Course materials have a balance of knowledge, skills and values that are presented appropriately using relevant media.

EDC mainly relies on print media but also uses radio to a limited extent to support the courses. Incorporating other media needs to be approved by the administration as there are cost implications. At the moment only the English department can produce the radio programmes because one of its three tutors was formally trained in multimedia content development. In addition, the English syllabus has a listening skill component, so the course writers have to produce a compact disc (CD) to teach and test this skill. Because the institution does not have the resources to produce CDs, a private company was contracted to produce them. However, EDC intends to expand its multimedia support, and plans to include other subjects.

3.3 Course materials are designed in an accessible way. Access devices such as contents pages, headings, graphic presentation of information and layout all help learners.

In order to teach effectively at a distance, the teaching materials must be exceptionally well structured and clear, and should contain everything a student needs to work through the course. Singh *et al.* (1979) state that learning for distance learners takes place only if there is purposeful interaction between the learner,

teacher and materials. The teaching-learning process will take place effectively if the instructional material has built-in mechanisms to promote active interaction. That is why the workbooks have activities, self-evaluation exercises and tutor-marked tests. The course writer has to bear this in mind all the time.

The content is divided into units which are divided into lessons. After each lesson there are self-evaluation exercises with the answers at the back of each workbook. The learners are expected to mark their own work to assess their progress. At the end of each unit there is a tutor-marked test, which is sent to the institution for marking, then feedback is sent to the course writer and the learner.

The writer knows where he intends to place illustrations and the size of each one, and so he indicates in the manuscript how much space should be provided for the illustration. Below is the model to be followed by course writers:

General introduction that should state:

- i.** Aims of the course
- ii.** Course requirements
- iii.** Study hints, etc.

Course structure

- (a)** State the number of workbooks for the course; each workbook under study should be highlighted.
- (b)** Each workbook should comprise the following components:
 - i.** Table of contents
 - ii.** Units
 - iii.** Glossary/hints
 - iv.** Exercises
 - v.** Answers to exercises
 - vi.** Tests
 - vii.** Icons

Each unit comprises:

- A unit topic
- An introduction
- Objectives
- Content
- Activity (at the end of each section)
- Exercise (at the end of each unit)
- Answers to activities and exercises
- A summary
- Tutor-marked test

3.4 Course materials are periodically reviewed to keep them up to date with changes in knowledge and learners' needs.

Feedback plays a very important role in distance education. The course writer wants to get feedback on the quality of the workbooks and the learner wants to know if he has fully understood the lessons. Both of these needs can be determined through the tests. All learning materials are supposed to be tested to ensure that they are good quality, factually correct and cover all the learning requirements. However, this stage is always skipped because the materials are only just produced when the learners need them. The materials are evaluated by the learners through their tests and difficulty sheets in which they note the sections they found difficult; the writers consider these comments when the workbooks are reviewed. Part-time markers and teachers from the conventional schools make an enormous contribution in evaluating EDC materials. The materials are reviewed every year.

3.4.1 Part-time markers

As soon as a workbook is completed, a copy is given to the part-time markers so they can familiarise themselves with the content and the tests they are going to

mark. They alert the course writer immediately if they spot a mistake and offer suggestions on the content, which will be used when the workbook is reviewed.

3.4.2 Teachers

As already stated, EDC follows the same syllabus as the conventional schools. Teachers and learners from conventional schools are free to purchase EDC workbooks to use in class. The most popular workbooks purchased are English literature workbooks and SiSwati grammar and literature workbooks. Teachers and learners from conventional schools also alert the subject tutor if they spot mistakes.

3.4.3 Learners

The student needs to assess his level of understanding throughout the learning process rather than waiting for the summative evaluation. The lessons have self-evaluation exercises, which are usually placed at the end of each lesson or wherever the course writer deems appropriate. The student is expected to work through an exercise and then use the answers at the end of the workbook to mark his work. As part of their orientation, learners are told to go through a lesson again if they have not done well in the answers. Their questions about the content also let the writers know whether the content is ambiguous or simply badly written. In addition, the workbooks contain tests that the learners complete and send to the course writer to be marked. The course writer then returns the test, complete with feedback, to the students, thus starting the two-way communication that is so important for distance education.

3.4.4 Rationale for review of workbooks

Workbook review is carried out for two reasons:

- **Exhausted stock:** As soon as there are only 100 workbooks left in stock, the store person sends a re-order card to the editor who in turn sends it to the workbook's course writer so that the feedback gathered from the current edition can be incorporated into the revised workbook. The editor will

once again send it to the typists and then check for grammar and spelling mistakes before the workbook is reprinted.

- **Change in the syllabus:** Sometimes a syllabus is changed before the existing stock of workbooks is exhausted and often some information needs to be removed. The course writer needs to change the text in the workbook so that the information is relevant and current.

4.0 CHALLENGES

- The staff at Emlaladini Development Centre are recruited from the conventional schools and only need a minimum of five years' teaching experience. They join with no knowledge of distance education principles or writing distance education material, and receive only on-the-job training which is very taxing. They are usually expected to start writing immediately, which means learning and then applying that new knowledge very quickly. It is a stressful time for them.
- The institution does not have a graphic designer, even though we know as distance education practitioners that pictures or diagrams stimulate and guide learning. Often the course writer ends up using pictures that are not clear because the graphic designer, who will often be juggling multiple contracts, is too busy to help.
- Writing workbooks is time-consuming and there is often frustration if one party fails to meet his deadline. The workbooks may be delayed by the content editor because he is an external team member with other work commitments and uses his free time for the workbooks. Sometimes the workbook editor delays because there may be a backlog in the printing department.
- Syllabus changes leave very little time for the course writers to make changes to workbooks. The first few workbooks are usually not their best work as they will have concentrated on the changes and corrections, which they are constantly on the lookout for.

5.0 CONCLUSION

This case study showed that materials development is an ongoing, time-consuming key process in ODL. It requires putting in place well-designed and well-regulated structures and processes. The course writing process described above is certainly not the best approach but EDC is hopeful that improvements will be ongoing, especially in terms of adopting more problem-based pedagogical approaches to materials development, with authentic real-world and collaborative learning tasks. EDC is also looking into improving quality in materials development through an efficient system that reduces the time taken to complete each workbook. It is anticipated that in future, once EDC has acquired sufficient human and material resources, it will introduce other media to enrich our material support base.

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CASE STUDY 3: Materials Development

Development of printed-based course material:
A case study of the National Institute of Open Schooling (NIOS), India
Gopa Biswas

1.0 INTRODUCTION

This case study focuses on the quality assurance measures that NIOS applies to its materials development. It shows how the four selected quality elements are managed at NIOS.

Quality criterion

The content, assessment, and teaching and learning approaches in the course materials support the aims and learning outcomes; the materials are accessibly presented; they teach in a coherent way that engages the learners; there is an identified process of development and evaluation of course materials. (5. Course Materials.)

Quality elements illustrated

- *Course materials are designed in an accessible way. Access devices such as contents pages, headings, graphic presentation of information and layout all help learners.(iii)*

- *Materials are developed by people with expertise in ODL and are subjected to rigorous quality reviews before use by learners.(vi)*
- *Clear procedures are in place for the development, dispatch and timely provision of high-quality learning materials to give learners enough time to use the materials before examinations.(i)*
- *Course materials are periodically reviewed to keep them up to date with changes in knowledge and learners' needs.(v)*

At each stage the case study points out the in-built mechanisms that are meant to ensure the production of high-quality materials that meet the needs of distance learners at NIOS. We have included a brief background note on the institution and its operations to help readers put the case study in context.

2.0 BACKGROUND

The National Institute of Open Schooling (NIOS) (A -24/25 Institutional Area, Sector-62 NOIDA, Uttar Pradesh, India), formerly known as National Open School (NOS), was established in November 1989 as an autonomous organisation by India's Ministry of Human Resource Development. NIOS offers continuing education to those who did not, or could not, complete school and 'are unable to join regular school but are interested in education'. Seventy percent of the total number of learners enrolled are male. Although girls and women are encouraged to join the system through a fee concession, only 30% of the female learners take advantage of the opportunity.

NIOS offers general, life-enrichment and vocational courses and programmes from primary to pre-degree level. During 2008–09, 371,625 learners enrolled in secondary and senior secondary courses with NIOS. Fifty-one percent were enrolled in secondary level courses (equivalent to Class X) and the remaining 49% were enrolled in senior secondary stage classes (equivalent to Class XII in the conventional system). The cumulative enrolment (maintained for a period of five years) is over 1.6 million and the majority of the learners

(76.15%) are in the age group of 14 to 20 years. The learners come from every state in India and also outside of India. NIOS offers flexibility in the choice of subjects, place and pace of learning, and transfer of credits from other education boards. It has a three-tier student support system at its headquarters, 16 regional centres and 3,914 accredited learner support centres/accredited vocational centres and accredited agencies at the local level. NIOS is a unique institution because it combines the functions of a state directorate of education (providing curriculum framework, instructional material, both print and non-print) and the functions of an examining board (assessing and certifying students).

NIOS caters for the learning needs of its learners through a 'cafeteria' approach by offering a wide choice of subject curricula and learning material. Learners must select one language plus four other subjects to earn their certificate. In the formal system, and especially at the secondary level where two languages, mathematics, science and social science have to be studied by all students, some subjects are compulsory. However, at NIOS the only compulsory subject is a language (students are free to choose) because language is necessary for thinking, communicating and expressing one's thoughts, and all learners need these skills. NIOS offers 27 subjects at the secondary level, of which 17 are languages. At the senior secondary level, 21 subjects are offered, of which 4 are languages. The number of subjects on offer is obviously more than that offered by the conventional schools, and learners have flexibility in how they combine their subjects. A learner can opt for word processing with painting, for example, or for a stand-alone vocational subject along with academic subjects.

NIOS provides a multimedia learning package in which the printed self-learning materials are the main teaching method. Further support is provided through face-to-face personal contact programmes, video cassettes, television and radio broadcasts, and a new Learner Support Centre (LSC) that has both an integrated voice response system (IVRS) and human executive support. Materials development processes are very much linked to the overall delivery strategy at NIOS (see figure 1).

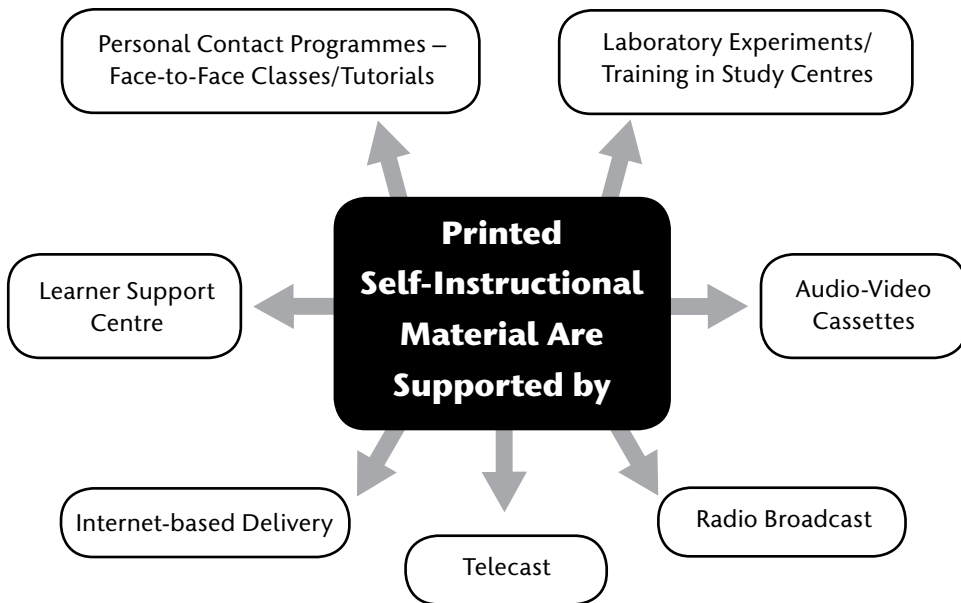


Figure 1: Delivery mechanism at NIOS

3.0 QUALITY ASSURING MATERIALS DEVELOPMENT AT NIOS

‘Quality is never an accident; it is always the result of intelligent effort’, said John Ruskin (cited in Garg and Kasuhik, 2006). The quest for quality assurance in open and distance learning is a matter of central concern. In a series of case studies published in 2009 by the Commonwealth of Learning, NIOS identified the following areas as vital for quality assurance:

- Curriculum
- Print and non-print material

- Process of curriculum transaction
- Progressive use of ICT in training of open schooling functionaries, monitoring of programmes and evaluation of learners.

This case study illustrates the routines, procedures and systems followed at NIOS in the development of printed self-instructional material. There is no doubt that the usefulness and viability of the open and distance learning (ODL) courses depends to a large extent on the quality of the learning material provided to the learners. At NIOS, materials development is linked to the rest of the delivery system.

3.1 Course materials are designed in an accessible way. Access devices such as contents pages, headings, graphic presentation of information and layout all help learners.

Usually self-instruction materials (SIM) replace the traditional textbook in the ODL system. Unlike the conventional teacher-fronted classroom where the teaching depends on the ability of the teacher (how the teacher guides and motivates students, and expounds on, explains and exemplifies information, etc.), instructional material and instructional design play a significant role in the open and distance learning system. Self-instruction materials are referred to as the 'teacher in print' and the personal conversational style of the differently formatted lessons presents a marked contrast to conventional textbooks.

The different lessons in learners' printed self-instruction materials are usually self-explanatory, self-contained, self-directed, self-motivating, self-evaluating and interactive. Every lesson is written in a semi-programmed, interactive 'didactic dialogue' style and has a distinct format. (See figure 2.)

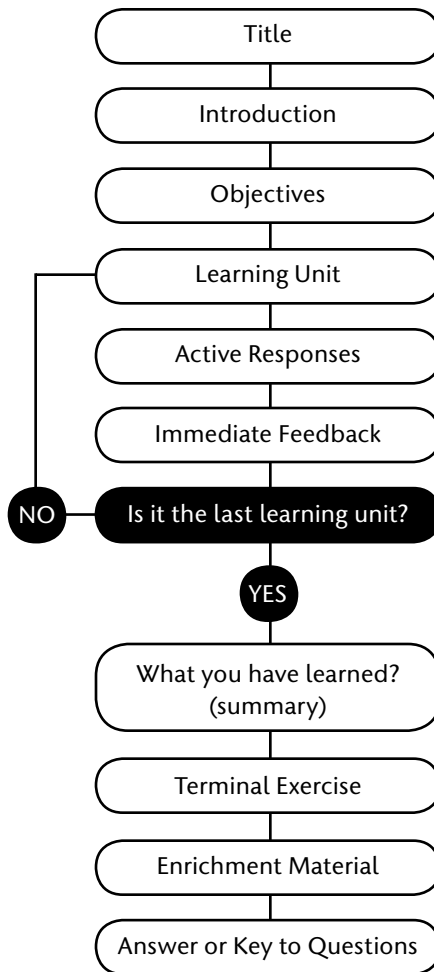


Figure 2: Format of a printed self-instruction lesson at NIOS (except languages)

Source: Mitra, Sushmita (1986). 'Format of Lessons'. In *Manual for Course Writers*.

The introduction not only introduces the topic but also links to what has gone before. It helps to relate the topic to the life experience of the learners by using analogies and to give the learners an overview of the whole lesson. The introduction is

modelled on the principles of advance-organisers and gives learners an idea of what to expect in the lesson.

The objectives section defines the learning outcomes for the lesson in behavioural terms. This is to prepare learners for checking on what they have learned.

The learning content is then broken up into small sections to make it easier for the self-paced learner to absorb and understand.

After every section, learners can assess their understanding by answering the in-text questions and comparing their answers with those provided at the end of the lesson. The summary reviews the information covered in the lesson, reinforcing the important learning points. This section is important for consolidating what was learned in the lesson.

The terminal exercise gives students another chance to assess their progress. The in-text questions focus on assessing students' understanding of a particular section, and the terminal exercises are more global and aim at developing higher cognitive skills like analysis, synthesis and evaluation.

A slightly modified format is used for languages. After the introduction and objectives of a lesson, a complete piece of writing (prose or poetry) is displayed. The text is then divided into smaller sections (Let Us Understand) and discussed in detail. The in-text questions are followed by other sections: Let Us Learn New Words, Let Us Learn Grammar and Let Us Write. At the end of all the subsections come the Summary (What You Have Learnt), Terminal Exercise and Key to In-text Questions.

3.2 Materials are developed by people with expertise in ODL and are subjected to rigorous quality reviews before use by learners.

NIOS depends mostly on the print medium for the transaction of the curriculum. For this, the subject team approach, which is an adapted version of the course team approach of the UK's Open University, is used to develop quality printed learning material. The subject team consists of a senior respected academic, who

heads the team, and four to six subject experts from different educational sectors who write the lessons as per the NIOS guidelines. The subject team also includes editors, translators, graphic artists and evaluation experts. The NIOS academic officer (in-house subject specialist) works closely with the group and coordinates the functions of the different members. In an emergency the individual writer and in-house editor model is adopted instead. Occasionally, because of time constraints, a workshop method is also used to develop materials. Whatever approach is used, it takes a long time (approximately 15 months) to develop a course from the planning to the production stage.

3.2.1 Selection of lesson writers

The work of writing the lesson is usually outsourced to practising or retired school-teachers or college teaching faculty. When choosing the writers, the following criteria are kept in mind:

- Postgraduate in the subject with teaching experience either at school, college or university level. The specialisation area in the subject is also considered; for example, whether the expert's knowledge is in ancient, medieval or modern Indian history.
- Reference from other organisations like the National Council of Educational Research and Training, Central Board of Secondary Education or Indira Gandhi National Open University. Preference is given to those who are familiar with material production and writing for open and distance learning.
- Availability of the expert in the given timeframe.
- Sometimes a combination of experienced and new experts is used to expand the existing database.

3.3 Clear procedures are in place for the development, dispatch and timely provision of high-quality learning materials to give learners enough time to use the materials before examinations.

Garg and Kaushik (2006) listed some of the quality indicators that should be adhered to when developing printed self-instruction materials. For example:

- Identification of learning outcomes for each module.
- Building the teacher into the text by ensuring interactive content with components of formative self-evaluation and testing, bringing live examples from immediate environment and context.
- Orientation of course content developers and experts available in conventional institutions to ensure uniform and acceptable standards.
- Institutional mechanisms for language and content editing by acknowledged experts to bring in authenticity, clarity and comprehensibility.
- Developmental testing of intended target segments to elicit feedback on relevance of content, difficulty levels and effectiveness of self-evaluation components.
- Deciding upon the shelf life of a given course beyond which the course will have to be compulsorily put into revision solely to ensure relevance of the material.¹

The flow chart in figure 3 shows how some of these quality indicators are interwoven in NIOS's material development process.

1 Garg and Kasuhik. 'Quality Assurance in Distance Education', p. 374.

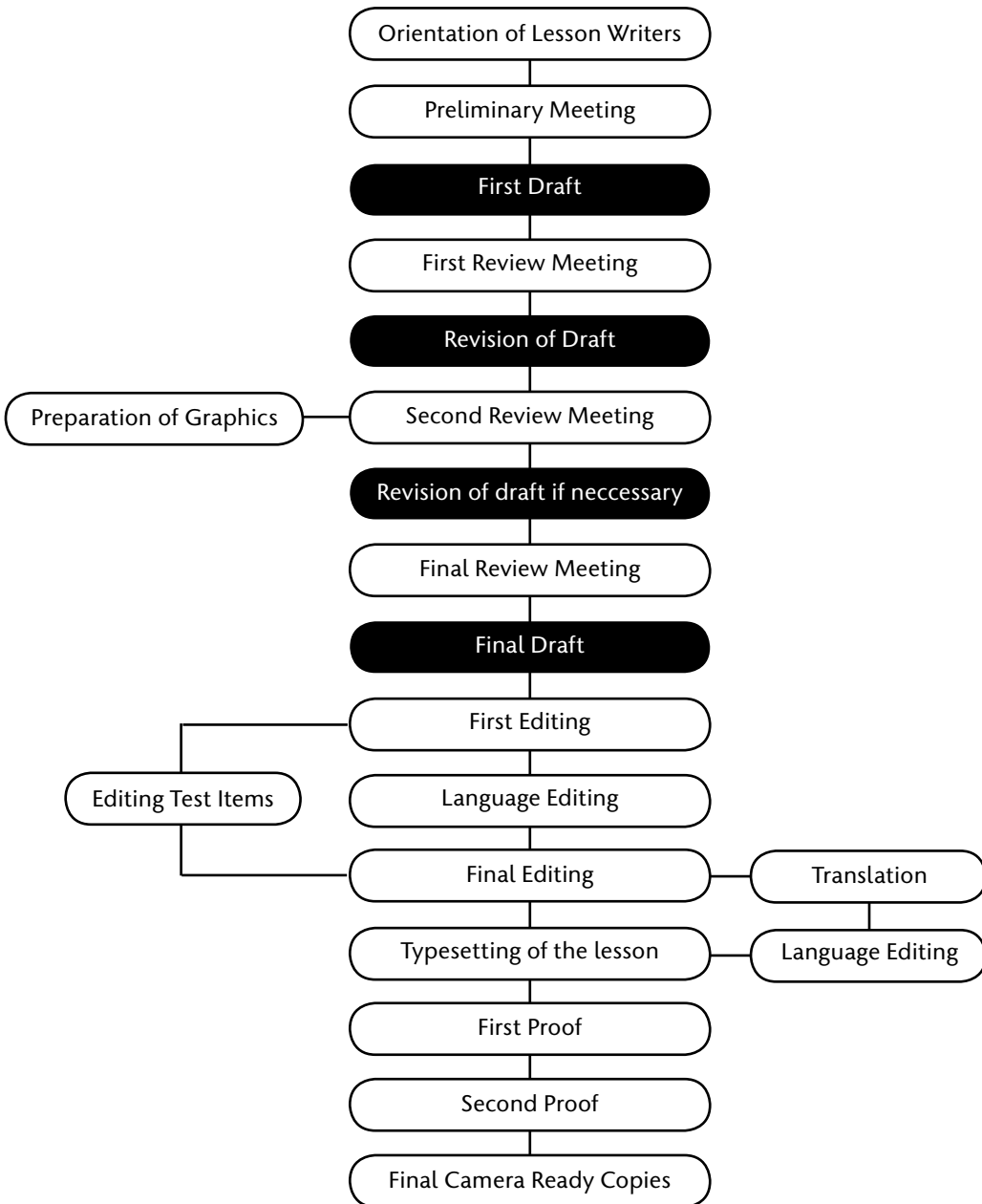


Figure 3: Procedures in the material production process

Source: Biswas and Priyadarshini, 'Distance Education at School Level', p. 196.

The learning outcomes from different domains are framed, unit by unit, once the draft curriculum has been finalised. These learning outcomes are then vetted by practising teachers so that when lessons are allocated to the lesson writers they know how much detail has to be covered in the lessons. The subject coordinator also prepares a sample lesson so that she becomes familiar with how to write a lesson and how to guide the lesson writers later.

Once the lesson writers have been chosen, an orientation programme is organised for them. Orientation includes, amongst other things, the salient features of self-instruction materials. Writers have to understand how self-instruction materials differ from conventional textbooks. The timeframe for the work allotted and general guidelines and instructions are discussed by senior academic officials and other resource staff from the field of open and distance learning.

After a lesson is allocated, normally three review workshops are organised at an interval of one or two months to finalise the draft. The sequence of ideas, the simplicity and effectiveness of the language used, and the accuracy of facts and figures are examined critically and modifications are suggested. The lesson writers make a note of the suggestions and incorporate them in their lessons before the subsequent reviews. Headings, subheadings and serial numbers must be consistent within and uniform across all lessons. The review meetings are attended by all members writing a particular module, so the collective thinking of the whole group enhances the quality of the material produced.

After the third review meeting, the lessons are taken first for content editing by the subject team chairperson and then for language editing by a language expert. Simultaneously, the illustrations are chosen and prepared by the in-house graphic artist or outsourced, if necessary. Meanwhile, the in-house coordinator checks the lessons for presentation, format and standard terminology. Thus, some activities are linear and others are parallel. It may be noted here that whatever the subject is, the template and the access device icons are the same in all lessons. The in-house subject coordinators ensure that the sections are consistent in all lessons and uniformity is maintained. The senior colleagues of these subject coordinators monitor their work and suggest changes if necessary. The draft manuscript of the lessons therefore goes through all the necessary stages of quality assurance.

After the lesson is finalised in one language it is translated into other languages and edited accordingly before being typeset. At least three proofs are read before the final camera ready copies are made available for printing.

3.3.1 Production of self-instruction materials

To be truly effective, self-instructional material must be impressive and eye-catching. At NIOS, an A4-size booklet with a print area of 7.25" x 10" (18 cm x 25 cm) is preferred. Wide margins provide space for learners' notes and queries. They are also used for sidebars to explain difficult words in language materials and to give extra information in other subjects. The 12-point font ensures the readability of the material and 60 gsm paper prevents bleeding and showing through on the reverse side. The cover page, which uses pulp board of 220 gsm, is printed in four colours.

3.4 Course materials are periodically reviewed to keep them up to date with changes in knowledge and learners' needs.

Course material in any subject has a shelf life of five to six years. Revising the curriculum any sooner than this is not considered cost-effective.

4.0 CHALLENGES

Amongst the many challenges of material production are the twin problems of finding good material producers and subject experts dropping out halfway through the project because of their own heavy work schedule in their parent organisation. A third, related problem is the lack of good translators. NIOS is a national organisation, so it must provide learning materials in English, Hindi and Urdu. Many of the writers find it easiest to write the lessons in English, which means that the majority of the lessons are translated into Hindi and Urdu. We have had much verbal feedback that the translations are very stilted and more

difficult to understand than the original lesson. Furthermore, the lack of consistent and uniform use of technical terms throughout the material in subjects like science or home science compounds the problem. The problems even extend to how the learning materials look. NIOS cannot offer competitive market rates to attract the best talents who could make the graphics attractive and appealing through the use of cartoons, cartoon strips or good-quality coloured illustrations.

However, the most pressing problem is the lack of documented standard operating procedures for preparing and evaluating self-learning material. Even though NIOS has been producing materials for several years and is recognised for its quality learning materials, most of its expertise remains undocumented. Several attempts have been made over the years to publish both an in-house manual for writing self-learning material and an accompanying style guide that would apply to all subjects, but this task remains unfinished. Newcomers learn on the job and work under the guidance of experienced senior colleagues who are familiar with the entire course development process. A lack of facilities for regular and periodic training for in-house staff has also resulted in the discontinuation of good practices like using concept maps to show connections between different concepts in a subject area. This was done for the first set of senior secondary material but could not be continued in later years.

5.0 CONCLUSION

In her article 'Pedagogical Analysis of Instructional Material in School Education', Parhar (1999) observed that learning is facilitated by programmed and structured instructional material. 'In instructional material preparation, there are core components like presentation of material and peripheral components like statement of objectives, introduction, layout and production. Within the core component, the central theme is the presentation of content in small steps; illustrations and summarisation are the supporting items. It is important to recognise that the peripheral items directly influence the learning process; hence they need adequate attention and care.' She further observed that NIOS 'takes the job of

textual material design and development with the pedagogical seriousness to the last point'.² Despite all the challenges that NIOS faces, its hallmark is unarguably the high quality of its learning materials.

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2 Parhar, 'Pedagogical Analysis of Instructional Material in School Education' p. 98.

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CASE STUDY 4: Learner Assessment

A case study on learner assessment: University of Papua New Guinea Open College
Professor Abdul Mannan (UPNG)

1.0 INTRODUCTION

This case study documents learner assessment processes and procedures in the Certificate in Tertiary and Community Studies programme offered in a distance learning environment at the University of Papua New Guinea Open College. It discusses the different aspects of learner assessment that are controlled and regulated to improve the quality of learner performance in the college. Specifically, the case study addresses the following quality criterion and 8 of the 13 elements outlined in this toolkit.

Quality criterion

Assessment is part of the course design; formative assessment is an essential part of the teaching and learning process. Assessment is well managed with sufficient external moderation to meet the requirements of accreditation bodies. (6. Assessment.)

Quality elements illustrated

- *There are processes for the recognition of prior learning as well as diagnostic testing for appropriate placement.(iii)*

- *Due recognition is paid to assessment as the key motivator to learning and as an integral part of the teaching and learning process.(i)*
- *There is carefully scaffolded continuous formative assessment with timely constructive feedback that contributes to a supportive environment for learners throughout their course of study.(v)*
- *Formative assessment prepares learners to meet the demands of the final summative assessment.(vi)*
- *The range of outcomes for the final summative assessment is validly and reliably assessed.(viii)*
- *Weighting of examinations and continuous assessment (course work) is well regulated by clear policy that takes into account the rigour of each of these assessment processes.(ix)*
- *Effectiveness of the assessment policies, strategies and practices are reviewed regularly.(xi)*
- *A credible assessment system that regulates both internal and external moderation, criteria for the appointment of moderators and use of moderator reports is in place.(ii)*

Assessment is considered an integral part of the linear instructional process for promoting and supporting students' learning. The assessment strategy gradually stimulates learners' abilities in conceptualizing, actively experimenting, directly experiencing and reflecting. The quality assurance in learner assessment evolved in tandem with the college, but the various aspects of assessment are well documented in policy directives and operational manuals. This case study also highlights the challenges of plagiarism, authentication and scaling up associated with the introduction of online assessment.

2.0 THE CONTEXT

The University of Papua New Guinea (UPNG) is a dual-mode institution. It offers undergraduate and postgraduate programmes through traditional education and distance education. The UPNG Open College (OC) mandate includes the

development and delivery of tertiary and pre-tertiary courses and professional education, and the provision of community-based education and information.

The Certificate in Tertiary and Community Studies (CTCS), established in 2002, is a pre-tertiary programme that aims to provide opportunities to a large segment of the population who for various reasons could not pursue formal studies and/or are becoming social liabilities. The programme intends to help them achieve their full potential. The OC tries to reach out to marginalized groups such as school dropouts, unemployed youths, girls, women, matured service persons (working in government departments or private sectors, for example) and ex-service persons (retired from government departments or private sectors, for example), professionals, community workers and prisoners. Since its introduction in 2002, the CTCS programme has attracted many able learners from different segments of the population throughout the country. The annual course enrolment increased from 3,700 in 2003 to 21,000 in 2009.

The CTCS programme aims to equip students with the literacy and numeracy skills and the subject knowledge they need to become lifelong learners and to cope with academic studies in higher education institutions. The programme also aims to equip learners with the skills they need for gainful employment or to return to the community and be self-employed. The four main core components of the programme are literacy, numeracy, civics and development studies and life skills, but the students also study economics, physics, chemistry and biology in preparation for post-secondary studies. In addition, the CTCS programme offers vocational courses such as computing, business, crop production and agricultural management, tourism, and plantation management that will help learners find gainful employment afterwards.

As well as the learner cognitive support provided in the materials, OC has established study centres around the country to provide administrative and academic support services. The open campuses and study centres provide facilities such as fax, telephones, computer labs, classroom space and study areas. All campuses and centres have orientation sessions for new students on the first day to explain the various academic and administrative policies, procedures, rules and regulations that regulate their study. Tutors at centres and sub-centres meet with students

weekly to help with any learning difficulties. In some locations, where these services are not readily available, there is volunteer counselling to promote confidence and commitment amongst students. The study centre also allows students to discuss academic and other related matters with their peers.

Students must pass 11 courses with 33 credit points to qualify for the CTCS award. Each course has a set of course outlines and study guides. The objective of each unit in the study guide is tied to the overall aim set in the course outline, and there is an interactive link between the study guide, reading materials and learning activities. The learning activities require students to interact with others in the workforce and in the community. The course is learner-centred, caters for different styles of learning and includes learning strategies such as case studies, self-assessment activities, projects, reading and communication between peers. Students can also assess their own learning by using the solutions provided in the material. The materials are written by local academics in consultation with local professionals to ensure their relevance to the cultural context. The OC instructional designers ensure that inclusive language is used to avoid causing offence to any gender, race, class or ethnicity. The access device incorporated into the materials is a list of suggested further reading available locally. Students are encouraged to use the learning resources available within their community. Student learning is supported through the provision of solutions for activities, mock examinations, feedback on assignments and communication with the tutor and mentor in the study centres or communities.

The absence of a comprehensive quality assurance policy and culture within the UPNG meant the OC had no prescriptive quality assurance policy during its early days. The major focus for OC development was on capacity building in terms of organization and development, administration, staff development, course design and materials development, student support services and the establishment of study centres, assessment and feedback, etc. The newly recruited staff were involved in learning what the centre needed to be successful and efficient and in putting in place the systems, processes and procedures. It would be counterproductive to further overload them by asking them to put in place a comprehensive quality assurance policy. Without a prescribed quality assurance policy, the college

leaders rely on systems, processes and procedures to ensure the integration of the elements of quality criteria and indicators. Quality was built in at every level of operations in the form of system development and implementation, instruction and documentation. Development of the quality assurance policy at a later stage of ODL institutional development ensures the active participation of the managers and staff at all levels, and the integration of their experience with best practices elsewhere. The home-grown quality assurance policy thus ensures the ownership of the policy and commitment of the staff for its implementation as they are familiar with the quality assurance criteria and indicators.

3.0 QUALITY CRITERIA AND DESCRIPTION OF PRACTICES

The following section illustrates how the various quality elements are implemented in the Certificate in Tertiary and Community Studies Program at UPNG.

3.1 There are processes for the recognition of prior learning as well as diagnostic testing for appropriate placement.

Admission into the CTCS programme is open and based on assumed knowledge instead of any prerequisites. Many average citizens found themselves unable to pursue formal education but in their daily lives they acquired adequate learning skills and substantial knowledge of their environment. Given the opportunity, they prefer to return to formal studies and gain the qualifications that would help them to improve their quality of life and to contribute to their community at large. However, potential learners' reading and writing competency must be assessed to ensure that they can cope with the learning process. All applicants are required to sit a test in literacy and numeracy to show they can cope with study requirements. Students who fail to achieve the minimum required scores are advised to enrol in remedial courses. All students begin at the same basic level regardless of their scores in the admission tests.

Given the diverse ethnic backgrounds, aptitudes, learning styles and learning needs, distance learning institutions will always find it a challenge to provide personalized treatment and support for their many geographically dispersed learners. A quality assessment system that represents a comprehensive learning progression, standards in content, process, faculty competence, and careful documentation about learners throughout their time at the college, combined with innovative approaches to support, may be the best way to achieve the desired learning outcomes (Collins *et al.*, 2002).

3.2 Due recognition is paid to assessment as the key motivator to learning and as an integral part of the teaching and learning process.

UPNG has a rigorous assessment policy (Mannan, 2006) because assessment is considered to be an essential tool for teaching and learning. OC assessment usually measures the students' mastery of knowledge, competency in performance and application of their knowledge and skills in addressing issues and problems (Gomez *et al.*, 1998). The teaching and learning process of the CTCS programme uses formative and summative assessments to measure learning outcomes both during the learning process and afterwards. The course design and materials development identify the learning outcomes of a course. The assessment is aligned with the stated outcomes. The assessment tasks reconfirm the learning improvement and test the learning outcomes. There is congruency between the learning outcomes of a course and measures of learning achievements (Naidu, 2006). For each course, a range of measures of achievement are identified to assess the wide variety of skills and competencies that learners need to acquire. Assessment methods include criterion-referenced measures that require learners to show what they have learned in relation to specified criteria.

The expectations of the assessment task, its relationship to the graduate profile and specific course objectives, and the criteria and standards by which performance is judged are all made clear to students from the outset. Students are made aware of assessment requirements to ensure that they understand the requirements of course completion. Assessment information is also provided in the course

outlines and learning skills documents. Critical information that students need to help them plan for assignments should, according to Puspitasari (2008), relate to:

- types of assignment,
- purpose of the assignment,
- nature and scope of the topic(s),
- length (number of words or pages),
- citation and referencing style,
- presentation standards (layout, typewritten, cover sheets, etc.),
- marking criteria and weightings,
- deadline for submission,
- penalties for late submission and plagiarism, and
- means of obtaining guidance and feedback (tutorials, telephone, etc).

3.3 There is carefully scaffolded continuous formative assessment with timely constructive feedback that contributes to a supportive environment for learners throughout their course of study.

Assessment is an integral rather than separate part of the linear instructional process for promoting and supporting students' learning. Formative assessment is carefully designed to identify the development of knowledge and skills, and to catch any deficiencies in these areas. Students continuously reflect on their learning process and correct or improve their understanding of the subject.

Formative assessment, also known as 'progression assessment', is designed to help students understand their weaknesses and strengths as well as how they are progressing through topics and logically integrated sub-themes (a combination of four out of five course topics). Each course is divided into three blocks of logically integrated topics. Students are required to work on a set of activities as they study each topic of each course. These are sequentially and logically arranged

for a 12-week study period. This process ensures that the students reconfirm their learning achievements against the learning objectives identified for each of the topics and address any learning problems before it is too late. Students submit three assignments at the end of study of each of the sub-themes by the end of the 4th, 8th and 12th weeks of the study period. Each assignment is designed to assess the learning achievements in respect of sub-themes and improve learning outcomes.

Learners receive information on assessment during the induction and orientation programme at the beginning of the academic year. Tutors are also required to explain the assessment requirement and assessment task schedule to students at the beginning of study of each course. To maintain consistency and accuracy in marking assignments, markers/tutors receive marking guides for each assessment task.

There is a positive correlation between the performance of assessment and timely feedback with appropriate comments and suggestions in enhancing students' learning (Race, Brown and Smith, 2005). Providing feedback ensures that learners think about, reflect on and evaluate their level of acquired knowledge and skills (Yusof *et al.*, 2009). The turnaround time for marking an assignment is a maximum of two weeks and preferably one week. The study centre administrator carefully monitors the return of marked assignments to the learners, including appropriate feedback. About 5% of the marked assignments should be reviewed by the course coordinator. However, limited staffing hours can affect the review of marked assignments.

3.4 Formative assessment prepares learners to meet the demands of the final summative assessment.

The assessment strategy for subject courses focuses on the assessment of discrete knowledge and skills, while skills-based courses are assessed to develop 'applied competence', or the ability to use the knowledge and skills in the workplace. The assessment strategy gradually stimulates the learners' ability to conceptualize, actively experiment, directly experience and reflect.

Formative assessment is of special value because it can motivate or pace distance learners throughout their course of study and help the tutor monitor the distance learners' learning process, diagnose their problems and provide prompt help and support. The formative assessment includes self-assessment activities to confirm the learning process and learning outcomes. Each learning topic in a course contains learning activities for self-assessment. The learning activities help the learners to reflect on, think about and evaluate their learning achievements. Successfully completing learning activities helps students to gradually develop the confidence to meet the challenges of moving through the subsequent units of a course with less difficulty. Tutors use the tutorial periods to help students who are having difficulty completing the self-assessment activities. This process creates an environment that stimulates students' learning and prepares them for summative assessment.

With timely feedback, formative assessment is most powerful if it happens during the educational process while there is still time for students to catch up with any shortfall and/or alleviate weaknesses and for tutors to modify the teaching and learning process. The summative assessment comes at the end of the educational process when the scope for improvement is limited. Thus, formative assessment prepares the learners to meet the requirements of the summative assessment.

Students' activities also include model questions covering a particular sub-theme of a course. The answers to these are at the end of the book and students can track their progress. Answering a set of model questions helps students to gradually understand, conceptualise, reason, analyse, present and meet the technical requirements of answering short and descriptive questions. Submission of assignments and timely feedback from the tutors helps the students to become more confident and self-directed in their learning.

Each course outline includes a sample exam paper (mock examination), which learners are instructed to complete at the end of their study period. Students are not monitored during the mock examination and they can check their answers against answer sheets when they have finished their exam. The mock exam papers are not marked but learners have an opportunity to discuss the questions

and answers with tutors, if they would like to do so. The mock exam is designed to boost their confidence before the final examination.

The formative assessment, including unit activities, model answers and assignment submissions, helps learners to integrate their knowledge and skills progressively and so prepares them for the summative assessment.

3.5 The range of outcomes for the final summative assessment is validly and reliably assessed.

The summative assessment task is a three-hour final examination at the end of a 15-week study period. The exam paper will include both descriptive – essay writing, descriptive answers to questions of theory and its application, for example – and short types of questions – multiple choice questions, true or false questions, short answer questions, for example – that test both common and critical understanding as well as application of knowledge and skills.

Revision of course outlines for successive semesters is compulsory; amongst other things, it means organising new assignments and other learning activities. Changing the assignments prevents students from copying the marked assignments of senior students. The assignments are developed by the respective course coordinators and moderated by fellow academics or hired subject specialists.

Examination items for summative assessment are developed by the course coordinators and moderated by the academics and/or hired subject specialists during the semester for which the end of semester examination is conducted. The exam papers are printed in the university printing press under close supervision of the Open College staff to prevent the exam papers from being leaked. The exam papers are packed and sealed then sent to the study centres by express mail to ensure maximum security. The sealed envelope containing the appropriate number of exam papers is opened in front of the students at the time of the examination.

The completed exam papers are packed up by the study centre and sent to the head office for marking. The OC recruits markers from local educational institutions who have skills and experience in exam marking at a similar level. The centralised system of exam marking and data processing is time-consuming but it helps to ensure quality and security.

3.6 Weighting of examinations and continuous assessment (course work) is well regulated by clear policy that takes into account the rigour of each of these assessment processes.

The CTCS assessment policy attaches more weight to the final examination, although a rigorous process of continuous assessment confirms the incremental learning process and contributes to the final course grade. The weighting and marking of continuous assessments and final exams are regulated for consistency between tutors and markers at various study centres and at head office. The weighting of continuous assessments and final exams is clearly spelled out in the policy directives and operational manuals. Components of individual assessment instruments and exam papers are provided with weightings so that all the tutors and markers know what is expected. Most important, marking guides help maintain consistency between the markers.

Students' performance for each course is assessed by three assignments containing both descriptive and short answers. The assessment policy and course design ensure that students are not over- or under-assessed; they also take into consideration the time that students will need to obtain the resources they need for their work. Resources are either provided in the study materials and/or are within reach of the students. The tutors consider this factor and inform the students of it at the beginning of the study period.

Continuous assessment counts for 40% of the overall final assessment of a course. The remaining 60% comes from the final examination at the end of each semester. However, the final examination remains the assessment yardstick for the award of final grades. Therefore, one must pass the final exam in order to pass the course

and get an appropriate grade. The pass mark is set at 50%, which translates to 30% of the 60% weighting of the final exam and 20% of the 40% weighting of the CA. Any score below 30% in the final exam is an automatic fail. However, an allowance is made for a pass if the final exam score falls in the range 25–29%. In this case, one can only pass with a concessional pass grade if the total cumulative score (continuous assessment plus exam) is over 50%.

3.7 Effectiveness of the assessment policies, strategies and practices are reviewed regularly.

The formative assessment tasks are assessed by the tutors who receive training on the assessment process, procedures and criteria. The marking guides are provided by the course coordinator to maintain consistency and accuracy in assessing the learners' work. The final examination markers are selected on a competitive basis and their ongoing engagement is subject to their performance. The markers attend orientations and are provided with marking schemes and guides. The marking scheme includes broad criteria (Morgan and O'Reilly, 1999) to assess the assignments and examination papers in respect of presentation, content and technical aspects: These are:

- quality of content (understanding of concepts, argument and analysis, evidence of wide reading, etc.)
- quality of presentation (layout and presentation style, logical flow, clarity of expression, etc.)
- technical features (grammar, spelling, punctuation, referencing, etc.)
- online courses are assessed according to the same criteria.

Although there is no prescribed weighting between the major three criteria for marking assignments and exam papers, 50% weight is attached to content and presentation and technical features account in various proportions to the other 50%.

The question-wise synoptic answers and marking schemes are provided to the tutors at study centres and markers in the Central Examination Marking Program at head office. This process ensures speed, accuracy and considerable objectivity

in the assessment of student assignments and exam papers, including both essay and objective type questions.

3.8 A credible assessment system that regulates both internal and external moderation, criteria for the appointment of moderators and use of moderator reports is in place.

Learners are aware of the ethical practice and code of conduct for the submission of assignments and sitting of examinations. Disciplinary procedures are in place for handling of malpractices and violation of code of conduct and ethical standards, including copying and plagiarism. However, UPNG has a carefully designed procedure so that ethical aspects are respected while dealing with plagiarism (Baggaley and Spencer, 2005). Procedures are in place to deal with student grievances and appeals.

4.0 CHALLENGES

While the advancement of information technology enhances the quality of assessment, the advent of technology has also challenged efforts to minimise plagiarism. Easy access to information on the World Wide Web promotes 'cut and paste'. Constant vigilance is the only preventive measure in the absence of any foolproof method to prevent plagiarism.

Authentication of learner-submitted assignments and examination attendance will continue to remain a challenge for institutions with mass enrolments. There is no way to verify that the person who claims to be engaged in an activity is the person who is actually completing the activity. Online assessment is more vulnerable to cheating than paper-based assessments with limited face-to-face tutorials. For example, direct interaction with a student would help a tutor to understand the student's level of competency and achievements and these could be compared to the standard of assignments submitted. It is easy for a tutor to identify a

plagiarised assignment if it is paper based. However, it is difficult for an assignment marker to compare assignments submitted by unknown students. There is also a tendency to cut and paste in online assignments.

Scaling up assessments along with the tremendous increase in students enrolment has been a challenging task for fast-growing institutions. There has been a growing tendency to replace paper-based assessment with online assessment. While changing assessment methods changes learners' learning (Brown, 1997), the effectiveness of online assessment including multiple choice questions and short answer questions in enhancing learning is not perfect. Multiple choice or short answer questions encourage students to simply memorise key concepts and definitions, and students are not encouraged to think and write creatively. It is also debatable whether multiple choice questions can adequately test high-level thinking skills. On a practical level, it will remain a challenge to ensure that all learners have access to computing facilities for assessment and practice at remote rural locations.

5.0 CONCLUSION

The Open College will continue to grow along with the challenges of continuous improvement in the quality of its programmes and graduates. The importance of assessment as part of the learning process deserves special attention at all stages of developing and delivering courses. As such, assessment as a determinant of quality programmes will continue to draw special attention for continuous review of its effectiveness and change accordingly. Technology-mediated assessment has been gaining popularity due to its advantages of scoring consistency and administering large numbers of students. The OC is carefully considering its suitability in the context of indigenous learners. However, quality, like assessment, requires continuous improvement in distance education.

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CASE STUDY 5: Learner Support

A case study on learner support at BOCODOL
Mabel Bothasitse, Fancy Amey and Dikeme Kgamanyane

1.0 INTRODUCTION

This case study describes learner support at Botswana College of Open and Distance Learning (BOCODOL). It explains key processes and structures for learner support in the institution. The case study illustrates how quality is assured in this important area of ODL provision at BOCODOL. It focuses on the following criterion and its elements.

Quality criterion

Learners have a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at a distance, contact tutoring, assignment tutoring, mentoring where appropriate, counselling (both remote and face-to-face) and the stimulation of peer support structures. The need for learners to access physical facilities and study resources and to participate in decision-making is also taken into account. (7. Learner Support.)

Quality elements illustrated

- *Learner support is conceptualised as part of the course design with methods selected to suit the activities and outcomes, including appropriate learning through social interaction.(i)*

- *The level of support is dependent on the age and entry level competence of the learners, and may vary for different types of learners in the programme and/or at different stages of the programme.(iv)*
- *To provide an adequately supportive learning environment the existing structures and resources of the education system and the community are used as much as possible.(v)*
- *Particularly for younger learners, the learning environment helps learners develop the necessary discipline for increasingly independent learning and good work habits; for older learners, peer support and collaborative learning are available. (iii)*
- *Available technology is used to enhance the quality of learning and learners are sufficiently supported to make maximum use of the available technology.(xi)*
- *Learners with special needs are adequately catered for in the learner support services of the provider.(ii)*

At BOCODOL, learner support is given high priority as it is a critical factor in determining learner success and throughput rates. Whilst many aspects of learner support are given attention at the college, this case study focuses on the six quality elements above. To help readers understand learner support processes in context, we give a brief background of the college first.

2.0 CONTEXTUAL BACKGROUND

The Botswana College of Distance and Open Learning (BOCODOL) is a dedicated distance education institution that was established in December 1998 by an act of parliament. The college became operational in November 2000 as a semi-autonomous distance education institution and followed the 1993 recommendations of the National Commission on Education, based on their observations that the Department of Non-Formal Education (DNFE) had experienced several constraints in the implementation of its distance education programmes. The constraints included:

- a lack of resources: personnel, space, budget, etc.,
- understaffing and lack of expertise in distance education,
- a lack of institutional and professional status,
- a lack of relevant learning materials, and
- an inability to promptly respond to learner needs.

The college was established by upgrading the Distance Education Division of the Department of Non-formal Education (DNFE). Its mandate is to **expand education and training opportunities for out-of-school youth and adults using distance education methods.**

Education in Botswana has since come a long way although there is still no documented policy specifically for distance education provision. Education development and provision in the country is anchored on two landmark policies. The first, the National Policy on Education also known as Education for Kagisano, adopted in 1977, emphasised access mainly to basic education but also, to a lesser extent, to other levels. The second policy, commonly referred to as the Revised National Policy on Education (RNPE), was adopted in 1994 and was based on the recommendations of a national commission appointed by the president in 1993. Unlike its predecessor, the RNPE calls for qualitative improvement of the education system. The government has identified seven key issues that are considered vital for the future development of education in the country. These issues form the focus for policy and development for a period of 25 years (beginning in 1994) and guide everyone involved in providing education including distance education.

The issues are as follows:

- Access and equity, given the current imbalances between regions and genders in terms of access to educational opportunity.
- Effective preparation of students for life, citizenship and the world of work.
- Development of training that is relevant to the needs of economic development.
- Improvement and maintenance of quality in the education system.

- Enhancement of the performance and status of the teaching profession.
- Effective management of the education system.
- Cost-effective/cost-sharing in financing of education.

3.0 QUALITY ASSURING LEARNER SUPPORT

The following section documents how the institution handles the six quality elements of learner support in 1.0.

3.1 Learner support is conceptualised as part of the course design with methods selected to suit the activities and outcomes, including appropriate learning through social interaction.

The first step in improving the quality of learner support is to develop a clear institutional position on what learner support needs and the role it plays in improving learner success. In introducing sound activities and structures that support learners, BOCODOL is guided by a contextually grounded framework of the role of learner support in ODL. At BOCODOL learner support is generally understood as:

Learner support is a crucial component of any ODL system concerned with ‘all activities beyond the production and delivery of course materials that assist in the progress of learners in their studies’ (Simpson, 2000, p. 6).

At BOCODOL, learners are given pre- and post-enrolment guidance and counselling. Learners receive information on the course delivery process, schedules and the services offered by the college. Tutorial services are offered on a face-to-face basis with one hour per week for each course to supplement the individual or group studies. Working from the context and conceptual understanding of learner support, BOCODOL adopted a learner support model aimed at creating a positive learning environment for its diverse learners. Thus, strategies for supporting different learners are part of the course design process.

The BOCODOL learner support system is learner centred and decentralised. It is meant to meet the needs of all learners irrespective of their geographical location, age, gender and other socioeconomic factors. Furthermore, the system provides for:

- Regular, responsive and flexible tutor support.
- Regular contact between tutors and learners and amongst learners themselves to maximise social interaction.
- A tutor marking system that provides quick and effective feedback, guided by a clear policy on turnaround time for marked assignments.
- Dealing with learner enquiries in a caring, patient, timely and compassionate manner.
- Guidance and counselling through all the stages of the learning cycle: for example, examination counselling, stress management, avoiding loneliness. The support provided through such counselling helps keep the learner in a human/social environment throughout the period of study.
- Up-to-date learner records and statistics.
- Providing learners with timely information on tutorials and examinations.
- Suitable arrangements with relevant partner institutions in the delivery of learner support.
- Provision for learners in remote and rural areas – hence the learner-centred strategy that aims to take services to the learners through the community-based learning centres.

BOCODOL could easily have opted for a simple model of distance education in which the materials (text, audio, video and computer) become the sole teacher and the resultant reaction is the ‘chemical reaction’ and expected to produce a successful learner. However, having critically analysed earlier experiences at the DNFE, the college felt a compelling need to find a different option. It settled on a model that would not only present user-friendly interactive study packs but also create a study environment that would enable learners to reach their full potential. This is the ‘catalyst-assisted reaction’ model: the same materials are provided but a human

voice is added through guidance and counselling, as well as the opportunity to interact with tutors, other learners and the institution itself. The catalyst model of learner support is based on the social constructivist approach to learning. This approach emphasises the creation of a learning environment where learners interact and share with other learners and with their mentor to develop their own understanding/knowledge. It upholds the notion of learning as a social activity and promotes independent learning as well as positive study habits that form a good basis for lifelong learning.

The learner support model illustrated in figure 1 shows how the college carries out its mandate to improve access whilst enhancing student performance by bringing support structures to where the learner is located, including the very remote areas. In designing courses, in developing learning materials and in structuring the most suitable learning designs for its different learners, BOCODOL is guided by its learner support strategy.

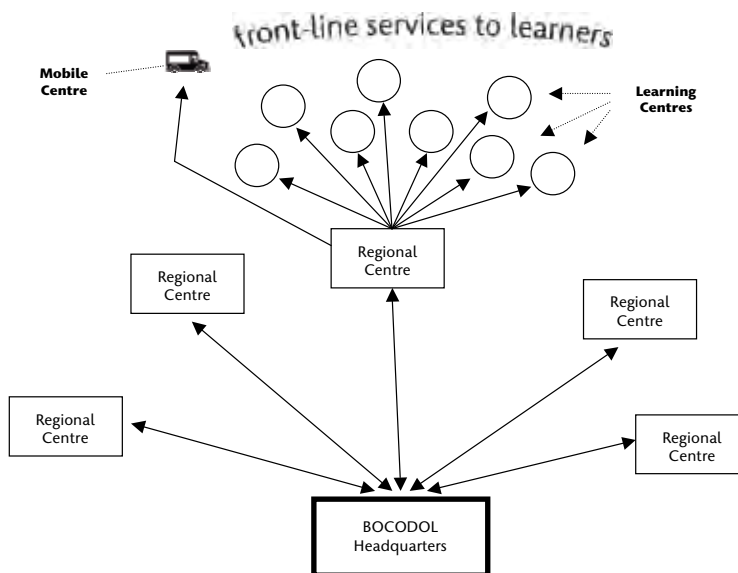


Figure 1: BOCODOL's outreach strategy.

Source: Amey, F. 'The Cutting Edge of Open and Distance Learning at BOCODOL', p. 7.

Some of the key features of the outreach strategy shown above include:

- **Learner-centred services:** The delivery method is flexible and suits learners' needs, not the institution's needs. It is also inclusive of all learners regardless, for example, of geographical location.
- **Decentralised services:** Learning, learner enrolment and study material distribution take place at the study centres nearest to the learners. Learners in isolated and remote areas are treated as remote area learners and the school comes to them.
- **Learning centre model:** Propagates from a regional centre and so reaches a larger population than the conventional school.
- **Pilot:** Learners in remote areas are enrolled in a few courses on a trial basis before a fully fledged learning centre is opened. The pilot helps in contextualising the programme delivery and ascertaining centre viability.
- **Expand/spread:** The decentralisation features encourage a wider coverage of the potential learner population.

3.2 The level of support is dependent on the age and entry level competence of the learners, and may vary for different types of learners in the programme and/or at different stages of the programme.

BOCODOL caters for a diverse group of learners in terms of their geographical distributions. Learners are spread throughout the country with over 50% in urban and semi-urban centres and the rest in the rural and very remote parts of the country. Some learners are also found in prisons. Thus, one of BOCODOL's strengths is that it reaches the most unreachable in the country and its learner support structures are planned with this mind.

Learners differ in age (predominantly youth between 15 and 35 years), gender (nearly 70% female), educational background, motivation and ability to access resources. A significant number of the enrollees are school-leavers in school

equivalence programmes who have no experience of studying by distance education. This group needs more face-to-face contact sessions with active tutor involvement. There is also a new group of adult learners, many of whom need in-service courses in the vocational, management and professional areas. This group depends on their employers for financial and logistical support; if they do not receive this support it greatly affects their motivation. In addition to these challenges, the HIV/AIDS pandemic affects the everyday lives of many learners. HIV/AIDS can be used as a theme in various subjects, thus making it easier for learners to approach tutors with AIDS-related problems.

As we saw above, the college developed a more learner-centred approach to address the diverse needs of its learners. The strategy is based on a radically decentralised system that aims to deliver learner support services as much as possible at a community level, providing effective support at all stages from pre-enrolment to post-examination. It also includes guidance and counselling, a crucial element of learner support that increases retention and participation in programmes, and boosts success rates. BOCODOL's Learner Support Division is responsible for initiating, developing and delivering quality, cost-effective support services to help learners to succeed in open and distance learning (ODL) programmes and to promote a culture of lifelong learning. The type of support and its intensity varies according to the different needs of the learners. Generally, most students need academic support as well as support with day-to-day social problems that can affect their studies.

3.2.1 Academic support

BOCODOL's mainstream programmes are at secondary school level and they are examined and accredited by the Botswana Examinations Council, a semi-autonomous institution under the Ministry of Education, formerly the Examination Research and Testing Division of the Ministry. The college offers 20 courses for its junior and senior secondary programmes; it also offers 4 courses in the vocational, management and professional area. The college's portfolio is growing, covering different clientele as the market dictates.

Since distance learning at BOCODOL is mostly print-based, reading is an essential skill. Most learners, especially at conventional secondary school level, find reading quite a challenge. Such young learners need a lot of guidance to reach the required reading level. The learner is given workbooks or study units, which cover the whole course, to work through, but there are also some audiocassettes and radio programmes. The materials fulfil the role of the teacher: they cover all the content the learners need and are written in a very user-friendly style. Tutors help the learners learn how to find their way around the material. This includes guidance on reading, note-taking, writing and completing assignments. The tutor is further expected to encourage a reading culture amongst the learners by working on reading skills during tutorials, encouraging reading through structured exercises and carefully pacing learners through their learning materials.

Information about when assignments are due and when tutorials will take place is supplied to all learners well in advance, so learners can pace their own learning.

Learners in both categories are entitled to tutorial support. Tutors are trained and encouraged to keep track of learners' difficulties in handling the content relative to the objectives set in the unit and to develop a tutorial plan that will address any problem areas. BOCODOL offers two main types of tutorial support:

- **Face-to-face support:** This includes group tutorials and individual consultation for both guidance and tuition.
- **Support at a distance:** This includes tutor-marked assignments, radio lessons and audio tapes.

3.2.2 Guidance and counselling services by lead tutors

A guidance and counselling policy and an HIV/AIDS policy are both in place to address the needs of learners as well as staff. The college has personnel trained in guidance and counselling to provide these services to learners. The services are offered through the tutors, the learner tutor coordinator (Guidance & Counselling) in the regions and the Guidance & Counselling coordinator.

The BOCODOL learner support model further recognises the role of part-time staff as crucial to effective quality in open and distance learning programme delivery. The college has always invested a lot of resources to ensure that part-time staff, its front-line delivery people, are well equipped to carry out this mammoth task. Training is fundamental to empowering the key staff. Lead tutors are based in all regions and lead a group of tutors for each course (course-based skills training) to support learners. The institution's biggest challenge is a shortage of staff as its enrolment numbers continue to rise.

Learners are offered academic advice and counselling – including fee payment, choice of courses and study techniques – as part of the registration process. There are also occasional talks on how to adjust one's schedule to meet the challenges of learning. Learners receive a handbook to guide them in assignment submission and tutorial schedules. The college also conducts inductions, and workshops on study skills and rules and regulations for examinations. Pre-examination counselling checks that learners are ready to sit their examinations and tutors can advise learners on whether they should sit the examinations or defer them.

3.3 To provide an adequately supportive learning environment the existing structures and resources of the education system and the community are used as much as possible.

To create a sufficiently supportive learning environment, BOCODOL's learner support services are facilitated through a network of adequately resourced learning centres. Seventy-five learning centres are located throughout the four regions of the country so that learners can meet face-to-face with their tutors. These centres are all widely used.

Community Study Centres, or CSCs as they are commonly referred to, are places of study in existing educational facilities within the communities. The 1994 RNPE recommends shared use of resources for the delivery of education programmes and training. Based on this recommendation, BOCODOL has negotiated the sharing of resources and entered into partnerships with government and non-governmental

organisations for the establishment of the CSCs. The partnership is facilitated by the signing of a protocol agreement. The regional managers market BOCODOL programmes and liaise with local authorities to establish study centres. BOCODOL recognises the cost implications of the partnership with host institutions and has to negotiate over how costs are shared. The host institutions make available the following resources:

FOR IMMEDIATE USE	FUTURE USE
classrooms for evening and weekend tutorial sessions	computer facilities for computer-related courses
office space for a CSC supervisor	laboratories and materials for practical courses
a small storage space for study materials	
a part-time CSC supervisor (from the host institution or from the community)	
teachers who can provide part-time tutorial services in the tutorial sessions	
access to phone and fax or e-mail where possible for the CSC supervisor	
library/resource centre	
photocopying facilities	
teaching aids (e.g., overhead projector, TV and video sets)	

As much as possible, BOCODOL learners have access to resource centres – like libraries – and different technologies – like computers. Some local libraries have also been approached to partner with the college to extend their services to the BOCODOL learners around the country. Two BOCODOL libraries offer the following services: lending, reader advisory, orientations and electronic searches for reference material. The material in the college libraries is user-friendly and in the form of books, journals, newspapers/magazines and audio tapes. The electronic

and/or online databases are EBSCO host, COL Knowledge Finder, journals and e-books.

Apart from libraries belonging to other community institutions, BOCODOL study centres are hosted on existing conventional school structures belonging to the Ministry of Education. Teachers from the same schools are engaged as mentors for local BOCODOL learners, so learners can have regular support and attention without travelling long distances. This arrangement means the institution can link each learner to an appropriate tutor for mentoring, assignment tutoring and help in understanding course materials.

3.4 Particularly for younger learners, the learning environment helps learners develop the necessary discipline for increasingly independent learning and good work habits; for older learners, peer support and collaborative learning are available.

To facilitate sharing and collaboration during learning, BOCODOL encourages the formation of learning groups that consist of a small number of learners, usually fewer than 10. These learning groups are formed in a local area and students assist each other with their studies and other problems relating to their studies. Some learning groups become learning satellites if more learners join. Peer-to-peer interactions are encouraged to improve commitment and interaction with other learners.

To further promote support through study groups, BOCODOL recently formed Learner Management Teams (LMTs) that operate at a regional level. Having started in the Kang region as a pilot at the Matsha learning centre, LMTs have spread to other centres in the region (Itekeng–Ghanzi, Tsabong, Matsha-Kang, Takatokwane and D’Kar in Ghanzi). Gaborone region, which has a strong satellite in collaboration with the research centre at the University of Botswana, will be the next to introduce the concept.

The main responsibilities of an LMT include:

- organising study space,
- carrying out subject-specific group studies where individuals lead group discussions,
- carrying out needs assessments in the courses learners enrolled for and informing the regional centre through their centre supervisor of the appropriateness of weekend class schedules and content to be delivered,
- ensuring orderly study at the centre,
- helping take care of facilities at study centres,
- designing rules and regulations for learner conduct at the centre,
- encouraging learners to engage in discussion of issues in their own time (e.g., Matsha learners meet every Wednesday to talk amongst themselves on issues that affect them), and
- encouraging learners to take part in college activities like prize-giving and graduation, and attending board and regional meetings.

Thus, LMTs help learners engage in more structured study programmes, develop their time management and eventually develop the necessary discipline and positive study habits. The shaping of an enabling environment is one of the greatest benefits learners derive from the LMTs.

3.5 Available technology is used to enhance the quality of learning and learners are sufficiently supported to make maximum use of the available technology.

As mentioned above, although study materials are predominantly print-based, some materials are provided as audio cassettes or compact discs. More materials should be available in these formats in the near future. Radio lessons are developed and recorded by the college staff and aired on the national radio station which is accessed by more than 95% of the learner population. Plans are underway to introduce e-learning to further improve learner support.

3.6 Learners with special needs are adequately catered for in the learner support services of the provider.

In line with its commitment to reach marginalised groups in society, BOCODOL recognises the need to support learners in special circumstances. A stakeholders' consultative workshop was held in August 2009 to start the development of a policy framework to guide provision in this area. Manpower and budgetary requirements have been submitted for the development of the 10th National Development Plan (NDP 10), which will take into account support for learners with special needs.

3.6.1 Prison inmates

The college has recently conducted a needs analysis for inmate learners. Intervention strategies are currently being developed to improve support for this group of learners. In the meantime, these learners are continuing with their studies, with the college providing limited support through regular tutorials and visits by college counsellors, and arranging for interaction with inmates in other prisons.

4.0 LESSONS LEARNED

Since putting in place a new learner support system, the college has recognised a number of successes. These include:

- The institution of guidance and counselling at pre-enrolment, which has enabled the college to reach and enrol special learner groups such as remote and isolated learners, up-graders, teenage mothers and inmates.
- Targeted/focused interventions that have contributed to the motivation and retention of learners.
- Orientation and motivation workshops for learners and tutors that have improved both learner and tutor enthusiasm.

- Advocacy and liaison to address learner needs that have created a culture of learner care in the college.

5.0 CHALLENGES

Some key challenges affect both the youth and adults, regardless of their circumstances, and affect the learner support strategies of the institution. These include:

- unclear goals and lack of discipline amongst young learners;
- lack of work experience;
- multiple roles aggravated by HIV/AIDS;
- balancing the demands of sponsors with the needs of learners, especially in vocational courses;
- meeting the needs of diverse clientele;
- catering for learners in special circumstances, such as learners with special needs and prison inmates;
- resources limit face-to-face options for learners in remote locations;
- lack of a reading culture amongst students;
- coping with the changing curriculum in the school equivalency programmes; for example, literature sets for English and Setswana are prone to frequent, unexpected changes;
- teaching aids such as geographical maps are costly;
- provision of practical courses such as sciences; and
- demand for more direct tutor interaction in the form of 'teaching' by learners instead of the more facilitative approach, which encourages independent learning.

6.0 CONCLUSION

In conclusion, it is worth noting that the decentralisation of student services through the study and the satellite centre structures forms the backbone of the learner support system at BOCODOL. These structures are convenient to all students as they can access college support services from anywhere. The running of these centres is generally in line with the expectation of the college and that is where programme implementation takes place.

Besides the day-to-day running of the centres, BOCODOL has devised some quality assurance tools to monitor the attendance of learners, centre supervisors and tutors in the form of tutorial evaluation instruments, material evaluation, assignment submission tracking and logbooks on issuance and receiving of college services. Information collected on all these services is meant to further aid planning for the improvement of learner support in the college.

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CASE STUDY 6: Management and Administration

Management and administration of open schooling: the case of the Programa do Ensino Secundário à Distância (Secondary Education by Distance Education),
Mozambique

*Amadeu Afonso, Rogério Balate, Lurdes Patrocínia M. Nakala,
António Domingues Franque and Messias Bila Uíle Matusse*

1.0 INTRODUCTION

This case study shows how the Secondary Education Programme by Distance Education (PESD) is managed and administered at the Instituto de Educação Aberta e à Distância (IEDA) (Institute of Open and Distance Learning). It addresses the quality criterion on management and administration of open schooling defined in chapter two of this toolkit, using five of the constituent elements outlined in that chapter.

Quality criterion

There is effective, transparent and democratic management of communication and information as well as human and material resources; efficient administrative systems support the activities of the educational provider; the educational provider is functionally sound and can make reliable educational provision. (9. Management and Administration.)

Quality elements illustrated

- *There are clear lines of accountability within the open school and its governing structures, and between the governing structures and the community.(i)*
- *Production and delivery of course materials are in accordance with a course production schedule. Where existing systems prove inefficient, creative alternatives are considered.(ix)*
- *There are systems of managing examination papers, processes and results in a manner that maintains the credibility of the entire examination systems of the school.(xii)*
- *Learners' records (e.g., contact details and assessment results) are detailed, up to date and accessible to tutors, academic staff and administrative staff.(xiii)*
- *Equipment and facilities are well managed and maintained and secure against theft or damage.(xviii)*

Mozambique is a Southern African country located on the Indian Ocean coast with a surface area of 799,380 square km and a total population of 20,530,714 (2007 census). More than half the population consists of youth of school-going age, which puts great pressure on the educational system.

The government of Mozambique recognises that education plays a major role in development and so has been paying special attention to access to education through the construction of new schools and the expansion of existing schools. However, demand still far exceeds supply, especially at the secondary level. The Education Strategic Plan 2006–2011 stresses the need to use Open and Distance Learning (ODL) as a strategy for increasing access at post-primary school level.

In 2005 the government of Mozambique set up the Instituto de Educação Aberta e à Distância (IEDA) (Institute of Open and Distance Learning) whose main mandate is to provide distance education programmes for teacher education, secondary education and professional training.

2.0 BACKGROUND

PESD is a secondary education programme delivered at a distance by IEDA. It started in 2004 with 250 students in Nampula province and now covers the whole country. Today, 3,500 students are enrolled countrywide in the programme. PESD's aim is to expand access to education, in particular secondary education, through open and distance learning modes. In Mozambique, secondary education is made up of two cycles: lower and upper. The secondary education programme offered by IEDA comprises the first three years (grades 8, 9 and 10).

Although the PESD programme is open to all age groups, priority is given to the lower secondary school age group, which is officially from 13 to 15 years.

The length of the lower secondary education offered by IEDA is similar to the traditional option. This is due to the school calendar and to the national examination which is written only at the end of grade 10. IEDA learners follow the same curriculum and sit the same examinations as their counterparts in the conventional system.

3.0 MANAGEMENT AND ADMINISTRATION OF ODL AT THE IEDA

In this section, we describe how the five quality elements of management and administration highlighted above are handled at the IEDA.

3.1 There are clear lines of accountability within the open school and its governing structures, and between the governing structures and the community.

To ensure quality in the delivery process of the IEDA, the PESD teaching and administrative management system involves different actors at different levels, as figure 1 shows.

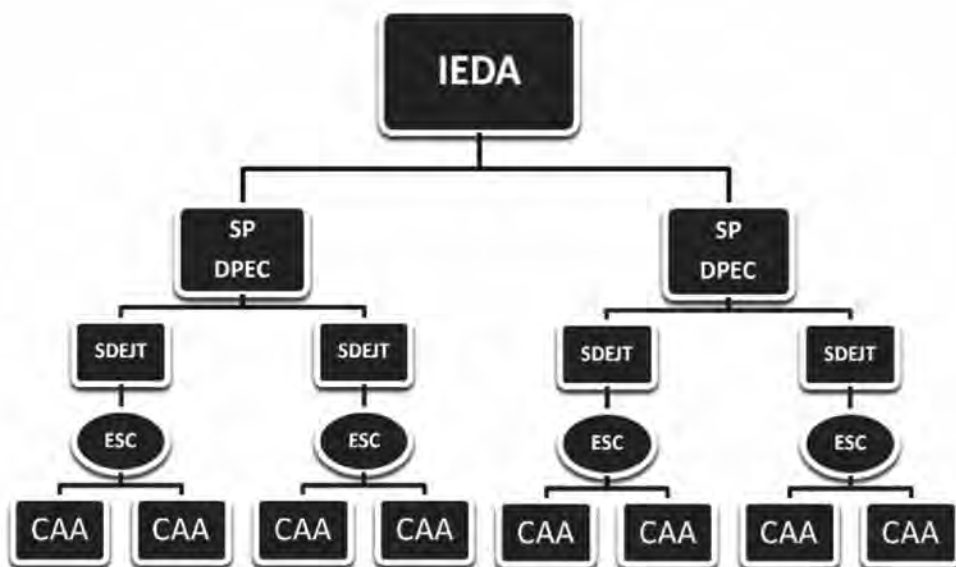


Figure 1: PESD Administrative Structure

Source: IEDA, 2010

LEGEND:

IEDA: Instituto de Educação Aberta e à Distância (Institute of Open and Distance Learning)

SP: Supervisão Provincial (Provincial Supervision)

DPEC: Direção Provincial de Educação e Cultura (Provincial Directorate of Education and Culture)

SDEJT: Serviços Distritais de Educação, Juventude e Tecnologia (District Services of Education, Science and Technology)

ESC: Escola Secundária (Secondary School)

CAA: Centro de Apoio e Aprendizagem (Learning Centre)

At IEDA headquarters, referred to here as the central level, there is a team of well-trained personnel with extensive experience in open and distance learning. At the provincial level there is a provincial supervisor of open and distance

learning responsible for all distance education programmes in the province. There is also a PESD coordinator who is responsible for the management of this specific programme. The PESD coordinator reports directly to the provincial supervisor. At the district level a district manager is responsible for the programme in the respective territory of jurisdiction. The district manager works with directors of secondary schools where PESD is being implemented. This is where the learning centres, known as Centros de Apoio e Aprendizagem (CAAs), are opened, although there are also CAAs in different locations. Each CAA is run by a tutor whose main role is the administration and pedagogic management of the centre. Thus, the administrative structures shown in figure 1 ensure that clear lines of accountability are maintained within the institute.

3.2 Production and delivery of course materials are in accordance with a course production schedule. Where existing systems prove inefficient, creative alternatives are considered.

IEDA's main role is to develop distance education programmes, courses and course materials. PESD materials are mainly developed internally by IEDA personnel. However, because IEAD does not have enough experts on writing distance education materials for all subject areas, other course writers are recruited from in-service conventional secondary school teachers. Assignments/ tests and their respective marking guides are set centrally by the course writers at the same time as course study materials are being produced. PESD follows the national curriculum which is adjusted by IEDA to the open and distance learning methodology.

PESD uses self-instructional print-based material organised in modules for each subject. The module corresponds to a chapter or unit theme of the syllabus. The self-instructional module consists of subject content, activities, experiments, self-evaluation activities and cross-cutting issues such as HIV/AIDS, malaria prevention and control, and cholera. The experiments recommended in the module can be carried out either at home or at a CAA.

As part of PESD's quality assurance, IEDA trains all managers involved in the programme – provincial supervisors, programme coordinators, district managers, subject teachers and tutors – and monitors the introduction of the programme at all levels. The course materials (modules) are quality assured through peer review mechanisms and before starting the development process all team members – including course writers, instructional designers, typesetters, language reviewers, editors and illustrators – are trained thoroughly.

The system of material distribution is guaranteed by the Ministry of Education which is responsible for the reproduction and dispatch of course materials to the provinces through regulated procurement processes. The provinces in turn are responsible for delivering the PESD materials to the learning centres where the students collect them. PESD materials are available as CDs as well as print. The CD-format materials are provided to the provinces mainly for reproduction purposes when needed in the learning centres. Learning materials can also be installed in the computers so that learners can read the materials directly.

Once learning materials arrive in the province, the PESD coordinator, who is responsible for all related activities of the programme, checks the materials then acknowledges receipt and signs a delivery/reception document. The materials are dispatched to the learning centres, where learners collect them. To ensure that materials reach learners in good time, the production process and delivery of course materials follow a schedule.

The district's main responsibility is to recruit prospective learners, subject teachers and tutors from secondary schools, and also to identify appropriate geographical locations for learning centres.

As shown in figure 1, learning centres (CAAs) are generally located in secondary schools and are run by tutors. Amongst other activities, the tutor is responsible for keeping the tests and marking guides in a safe place. He also distributes study materials, draws up a study calendar together with the subject teacher, supervises tests, provides counselling services and responds to all queries from learners. Thus, the system ensures that learners' queries are addressed promptly by somebody who is located close to them. The subject teachers also provide academic support, mark

tests following the respective marking guide prepared by course writers and provide feedback to learners.

3.3 There are systems of managing examination papers, processes and results in a manner that maintains the credibility of the entire examination systems of the school.

Another aspect of quality assurance is that at the end of the cycle, in grade 10, in order to guarantee the credibility of the academic performance, PESD learners sit the same national examination together with students from the conventional school system. All are subject to the national examination regulations. The examination results are published for both groups of students in the same examination sheet results, making no distinction between them. Certification of PESD students is issued by the school where they sat the examination but is the same as for conventional students. The results are recognised and validated by the Conselho Nacional de Exames, Certificação e Equivalências (CNECE), which is the national certifying body at the Ministry of Education. Thus, the overall management of the examination and the certification system has the same credibility as the rest of the education system in the country.

3.4 Learners' records (e.g., contact details and assessment results) are detailed, up to date and accessible to tutors, academic staff and administrative staff.

Admission into PESD is open to all who are interested. Learners enrol at certain places in the district. There is then a selection process to assign students to various learning centres. The list of learners is sent by the district manager to a secondary school where there are learning centres for registration. The enrolment process is the same as for the conventional learners: it takes place in the school registration office, although more specific information related to ODL learners is recorded. All registration information both from PESD and face-to-face learners is kept safely in the school.

For beginners, all the important information that helps learners settle, including information on pedagogical and administrative issues, is given out by tutors during the first face-to-face orientation. Learner progression records are compiled by the tutor using data from the subject teacher. Data on learner academic progression are compiled by the tutor and sent to the school where the learner has registered and will sit the examinations.

All the relevant information about learners is kept safe in the learning centre and in the school. Although the examination results are published on the same sheet as the conventional learners' results, the results of all PESD learners are selected and consolidated by the coordinator who then sends the information to the provincial supervisor who sends it to the IEDA, through the Provincial Directorate of Education and Culture.

Table 1 below shows the performance of PESD learners in their grade 10 examinations in Nampula province in 2009 per district.

DISTRICT	NO. OF STUDENTS REGISTERED FOR EXAMINATIONS			NO. OF STUDENTS EXAMINED			NO. OF STUDENTS WHO PASSED			% OF STUDENTS APPROVED
	M	F	MF	M	F	MF	M	F	MF	
Moma	19	4	23	19	4	23	15	4	19*	95
Nampula-Rapale.	5	1	6	3	1	4	3	1	4	100
Namialo	9	2	11	8	2	10	8	2	10	100
Namapa	34	9	43	21	6	27	21	6	27	100
Mecubúri	12	0	12	12	0	12	12	0	12	100
TOTAL	79	16	95	63	13	76	63	13	72	99

Table 1: PESD learners' performance

Thus, student data is a critical aspect of management at the IEDA. These data feed back into the planning processes of the organisation.

3.5 Equipment and facilities are well managed and maintained and secure against theft or damage.

All public purchases in Mozambique are centrally regulated by the Ministry of Finance which sets a mechanism of procurement for all public organisations, including educational institutions. Provincial directorates, districts and secondary schools have joint responsibility to buy equipment and other facilities for PESD. However, occasionally IEDA at the central level supplies equipment and facilities for PESD in the provinces, districts and schools. Although some effort is made to provide those facilities with what they need, there is still a huge demand and sometimes the facilities are not sufficient.

Sharing equipment and facilities is encouraged to make best use of the minimal supplies. As the majority of learning centres are located in secondary schools, PESD learners have been allowed to use classrooms, desks, tables, blackboards, computer rooms, laboratories, toilets and libraries in the conventional schools.

The responsibility for managing and maintaining equipment and facilities is assigned to schools in collaboration with the district and provincial directorate. However, tutors, some school staff members and a number of learners are all trained in how to manage and maintain the facilities and equipment, as well as on how to secure against theft or damage. A manual of procedures regulates the use of resources. The CAA tutor is responsible for ensuring that the manual guidelines are followed.

4.0 CONSTRAINTS IN PESD ADMINISTRATION AND MANAGEMENT

Since PESD was established in 2004, it has faced several constraints. These include:

- delays in the approval of PESD regulations by the Ministry of Education,
- lack of enough financial resources in schools to support PESD activities in the learning centres,

- some educational officials in the provinces not seeing PESD as equal to the conventional secondary education (e.g., they do not always fulfil their responsibility to budget for PESD activities and some equipment and facilities),
- lack of resources to provide each PESD student with a complete set of modules to complete the programme successfully,
- poor communication between the provincial ODL supervision and school managers, leaving the headmaster with no information on the tutor activities,
- tutors not being included in the meetings of the school managers to ensure the programme is seen as part of the national education provision, and
- no policy in place for the payment of tutors, coordinators and supervisors.

5.0 CHALLENGES

Some measures have to be put in place for the effective implementation of PESD. For example:

- Improve the administrative process for material reproduction as well as distribution.
- In-house reproduction of the course materials to have course materials available to students on time.
- Adjust existing PESD material to meet the new secondary education school curriculum.
- Produce grade 10 materials for PESD since they have not been written yet.
- Develop materials for some of the subjects offered on the programme, like drawing.
- Provide supplementary material for the existing material.

- Restructure the course from the present subject-based material to a cycle approach. That is, modules are written not for a grade but for a whole cycle that covers three years of schooling at lower-secondary level as a block, since the final examination is at the end of this time.

6.0 CONCLUSION

The secondary school programme by distance education (PESD) is now in place countrywide and the programme has played an important role in increasing access to education at the secondary schooling level. In fact, there is increasing demand for enrolments in the programme, but because of the shortage of resources such as course materials, facilities and equipment, the demand for secondary education in the country is far from being met.

PESD implementation management is set in the existing educational structures, which makes the programme more accountable. The involvement of several stakeholders at various levels of its implementation with specific roles at each level of management has had a positive effect on the programme's results. Finally, the tutor is the most important manager of PESD implementation, on the ground, being not only an administrator and pedagogical manager but also a counsellor.

CASE STUDY 7: Quality Assurance

A case study of quality assurance at the Institute of Adult Education (Tanzania)
Genoveva Ntiluhoka, Mary Kimaty and Baraka Kionywaki

1.0 INTRODUCTION

This case study explains how quality is assured at the Institute of Adult Education (IAE) in Tanzania. It focuses on four selected elements of the quality assurance criterion of this toolkit as they appear in chapter two.

Quality criterion

There is a quality assurance framework that integrates policy and practice, and that informs a clear cycle of planning, implementing, monitoring, reflecting and acting to ensure that learners' and staff's needs as well as the needs of other stakeholders are met. (11. Quality Assurance.)

Quality elements illustrated

- *There is a clear quality assurance framework supported by clear quality assurance action plans.(i)*
- *Internal quality assurance processes are articulated with external processes as laid down by the relevant national quality assurance bodies.(iii)*
- *Staff development is seen as fundamental to quality service provision.(vii)*

- *Staff, learners and other stakeholders are involved in the process of quality assurance and quality review.(viii)*

At the Institute of Adult Education, quality assurance is considered the most crucial aspect of delivery to meet the expectations of prospective learners, the institution and other stakeholders. Although in this case study only four quality elements are dealt with, the IAE pays attention to all aspects of quality assurance. Before we explain how quality assurance is handled at the IAE, we have some brief background information about the institute and the history of open and distance learning (ODL) in Tanzania.

2.0 BACKGROUND

The Institute of Adult Education (IAE) was established in 1960 as an extramural studies section of Makerere University College, under the University of London. In 1963 it was upgraded to a department and placed under the Dar es Salaam University College. The IAE became an autonomous institution by Parliamentary Act No. 12 of 1975 under the then Ministry of National Education, currently the Ministry of Education and Vocational Training (MOEVT). IAE became a centre for learning, research and training in adult education and its services extended to the grassroots level through regional centres established in each of the 21 regions of Tanzania's mainland. The IAE is responsible for designing and developing curricula and instructional and study materials as well as for research and consultancy in adult education and training programmes, including open schooling and distance learning.

Open and distance learning (ODL) started as a mode of delivery at the National Correspondence Institution (NCI) in 1970. It became operational in 1973 as an independent unit of the IAE. Its purpose was to provide educational access to those with little or no education from the formal education system. The NCI has now been fully integrated within the Institute of Adult Education as a department providing continuing education through open and distance learning.

Open and distance learning as a methodology is an improvement on the former education programme that was offered through correspondence and mass education in the non-formal education system. ODL's overall objective is to complement efforts by the government and the civil society (partners) to ensure that out-of-school children, youths and adults, especially girls, women, disadvantaged groups and nomads, have access to quality basic learning opportunities with a view to improving literacy levels and reducing the number of out-of-school children. ODL's role in opening up access and creating a lifelong learning society is reflected in the Secondary Education Development Plan 9 (SEDP 2004/05 – 2008/09).

2.1 Programmes offered through ODL

The IAE offers a variety of programmes through ODL. Amongst them is a secondary education–equivalent programme. This is provided in two categories; the first category involves learners who study at their own pace before meeting with their facilitators for three hours every evening for five days per week. The second category involves learners who study at a distance and meet for face-to-face sessions three times a year. These courses are offered in stages as follows: Stage I (Form I–II), Stage II (Form III–IV) and Stage III (Form V–VI). The same facilitators are used for both modes of delivery and they receive training in both modes. The characteristics of the secondary education–equivalent programme are summarised in table 1.

DURATION	ENTRY QUALIFICATION	QUALIFICATION AWARD	FORMAT/DESIGN OF MATERIALS	TYPES OF LEARNER SUPPORT SERVICES
2–5 years depending on learner's study pace.	Primary School Leaving Certificate or equivalent.	Leaving Certificate of Secondary Education.	Modules in print form with support of audio and radio programmes.	<ul style="list-style-type: none"> • Learning materials, • Learners' manual, face-to-face sessions, • Guidance and counselling, and • Tutors' comments based on marked assignment.

Table 1: Characteristics of open and distance learning

3.0 QUALITY ASSURANCE

Quality assurance (QA) is defined as a system through which an institution demonstrates conditions that are in place to help learners achieve the prescribed standards in educational programmes. It includes all those planned and systematic activities that provide confidence/assurance that the services provided will satisfy the given requirements for quality. In this case study QA is perceived as an inclusive term that refers to a continuous process of evaluating the quality of the education systems, institutions or programmes (Williams, 1997).

In this toolkit, as highlighted above, the criterion on quality assurance emphasises that a provider of open schooling should ensure that there is a quality assurance framework that integrates policy and practices, and that informs a clear cycle of planning, implementing, monitoring, reflection and action to ensure that learners' and staff's needs as well as the needs of other clients are met. It is argued that quality assurance is essential to ensure outcomes that are internationally credible and nationally responsive and relevant. This case study is an attempt to illustrate good practice in this area.

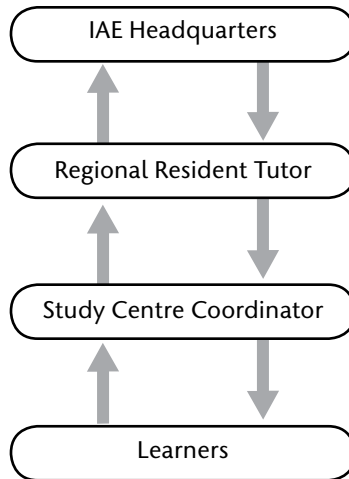
3.1 There is a clear quality assurance framework supported by clear quality assurance action plans.

In this element the IAE focuses on the following:

- **General philosophy:** The IAE's policy statement, strategic plan and slogan are aligned with the vision, mission, goals and principles of the institution. Its mission statement has clearly set-out goals and principles according to its local, national and international context. This is clearly reflected in the mission statement which states that: 'To become efficient and effective in designing, developing and implementing high quality adult and continuing education programmes that will equip graduands with skills and enabling knowledge to ensure achievement of sustainable development in both urban and rural areas. There is in place, ODL and assessment policies which guide the institution in achieving its mission.'

- **The process:** This entails teaching and learning processes such as tutoring, assessment and monitoring of learners and facilitators. To ensure quality, the IAE has developed various manuals that guide the teaching and learning processes. These include:
 - Assessment guide: this shows how learners are assessed both internally and externally and the types of assessment used in ODL.
 - Tutors' manual: this shows the various roles and responsibilities of facilitators in ODL – tutoring, marking and commenting – and administrative roles – enrolment, registration, record-keeping, guidance and counselling – as well as relevant information on various issues such as examinations, fee structure and mode of payment. The manual also highlights the challenges of tutoring ODL learners and how to address them.
 - Learners' manual: this guides learners on how to study and how to cope with specific ODL issues such as time management and preparation for examinations. It also highlights some of the challenges that learners may experience during their course of study and how they can address them.
- **Production, development and delivery system:** This involves the production of study materials and their distribution to learners. Material development involves three major phases.
 - Phase one is planning the learner profiles, aims and objectives, and select content and media.
 - Phase two involves the identification of resources (human, finance, materials and time), development of activities and choice of access devices.
 - Phase three is concerned with the actual writing of the materials and the editing in terms of content, pedagogical aspects and language.

Study materials are distributed to learners as follows:



The coordinator requests study materials from the regional resident tutor according to learners' needs. The regional resident tutor orders the materials from IAE headquarters and IAE sends them out to the various regions by bus. The regional resident tutor distributes them to the study centre coordinators who in turn distribute them to the learners. The structures and processes of the institution ensure the timely distribution of study materials in regions and study centres.

- **The products:** The curriculum reflects national needs as well as the needs of potential learners. It is also integrated with formal schooling so that learners can sit national examinations. Different professionals and specialists are involved in writing and designing the study materials (modules). Course writers must first attend an orientation session on how to write for a distance learner then the writing is conducted in panels. To ensure that quality study materials are produced, writers can consult a guide on how to write for distance learners. Study materials are reviewed after five years using feedback from users (learners, tutors and other stakeholders).

3.2 Internal quality assurance processes are articulated with external processes as laid down by the relevant national quality assurance bodies.

This element stresses the need for the internal processes and practices of an institution to meet the standards of relevant national quality assurance bodies to maintain the quality of service. The Institute of Adult Education does this by focusing on the following aspects.

3.2.1 Curriculum and syllabi

The programme uses an integrated curriculum based on the conventional curriculum prepared by the Tanzanian Institute of Education (TIE), an authorised body that designs and prepares national curricula for pre-primary, primary, secondary and teacher education. The IAE curriculum is therefore standardised and quality controlled by a recognised national body.

The IAE developed its syllabi in collaboration with TIE to reflect both the national curriculum and learners' needs. The syllabi are condensed to suit the IAE time-frame. Stage I is equivalent to Forms I and II for one year and Stage II is equivalent to Forms III and IV for another year. The curriculum is flexible to suit different learners' paces, responsibilities and capabilities. Both formal and non-formal learners sit the same national examinations, set by the National Examination Council of Tanzania (NECTA), and non-formal learners also have a chance to be mainstreamed in the formal system if they meet NECTA requirements. Learners who succeed through IAE and meet the NECTA standards can return to a conventional school if they want to.

3.2.2 Assessment and certification

Assessment at the IAE is considered a tool that is used to help learners learn and continue to learn effectively. It is a way of identifying the strengths and weaknesses of learners and making timely corrections to improve their performance. The IAE evaluates its learners quantitatively as well as qualitatively. The former

measures learners' performance in terms of their scores and the latter measures learners' behaviour changes. This can include improved social skills or communication skills, or a good work ethic, for example. Qualitative performance is measured during the learning process (formative assessment) and by the use of tracer studies that assess the progress of the institution's former students through their employers and other stakeholders.

The IAE conducts performance evaluation/assessment both internally and externally. Internally, the IAE prepares and administers tutor-marked assignments, tests and mock examinations. These are mainly formative assessments to monitor learners' study progress.

Externally, the final examinations are prepared and administered by NECTA. Certification is controlled at the national level by the same body that is responsible for providing academic certificates for primary schools, secondary schools and teacher education. However, IAE issues students' leaving certificates.

3.2.3 School inspectors

The IAE uses school inspectors from the Ministry of Education and Vocational Training. The school's inspectorate department is responsible for:

- ensuring the curriculum is followed correctly, and
- evaluating the school administration, teaching and learning processes, physical facilities, and teaching and learning materials. Generally, the department evaluates schools to ensure and maintain quality in primary, secondary and teacher education. Because school inspectors have been trained in the conventional system, the IAE educates them on ODL methodologies.

3.3 Staff development is seen as fundamental to quality service provision.

One indicator of the quality of an education system is the level of the academic staff. Although learners in ODL are self-directed, teachers are still crucial. They

support learning by assessing and measuring the potential of learners (Bhatia, 1995). Thus, the instructional processes, through structural guidelines, comments on marked scripts and feedback, ensure quality in open schools. It is therefore important to recruit highly qualified academic staff who learn to teach in the ODL system through both pre-service and ongoing on-the-job training.

3.3.1 Facilitators

The IAE uses suitably qualified facilitators and part-time tutors. Facilitators are expected to hold diplomas and degrees so that they can teach secondary school subjects expertly. Subject coordinators at headquarters have varied levels of qualifications ranging from bachelor's degrees to master's degrees and PhDs. They are all required to be teachers by profession and this is clearly stated in the 1995 Education and Training Policy (ETP).

The learning centre facilitators are usually located in nearby secondary schools. The registration process for part-time facilitators usually starts with the teachers submitting application letters with their CVs to regional resident tutors. Their CVs are then examined by an academic committee made up of centre coordinators and chaired by the IAE regional resident tutor. Once part-time facilitators have been recruited, they receive training on teaching through ODL and guides such as tutors' manuals and learners' manuals.

The IAE, in its efforts to provide quality education through ODL, conducts capacity building for its staff. For example, course writers are trained in module writing because most of them have a background in the conventional mode of delivery. The IAE identifies subject experts from existing conventional institutions and the training for course writers includes topics such as a historical overview of print in ODL, reasons for employing the print medium, forms of print used in distance education and open learning, the process of developing course unit/instructional materials, course programming and the pedagogical aspects of materials development.

Key programme implementers – including regional resident tutors, centre coordinators, facilitators and other support staff – also receive training. Their training is managed by a national ODL team of Trainer of Trainers (TOTs). This team is made

up of experts from various institutions such as the Open University of Tanzania, University of Dar es Salaam, Morogoro Teachers College and the Institute of Adult Education and is expected to train ODL implementers in all 21 regions of Tanzania's mainland. The training aims at creating awareness and promoting a sense of programme ownership. It generally aims at familiarising participants with the approaches used in open and distance learning, changing their mindset and how they both perceive and play their roles in promoting learner support services.

3.4 Staff, learners and other stakeholders are involved in the process of quality assurance and quality review.

This element stresses the need to collaborate with various stakeholders to involve them and make them proactive in implementing quality assurance in the institution. To do this, IAE involves stakeholders in various activities. These include:

- **Needs identification:** The process of identifying needs is central to curriculum and syllabi design and development involves stakeholders such as learners, parents, teachers, policy makers and community members.
- **Curriculum and syllabus development:** This involves experts from the Tanzania Institute of Education (TIE) which is responsible for the development of the curriculum for formal schooling. This helps ODL learners to transfer to conventional institutions.
- **Materials development (modules):** IAE uses experienced subject specialists and teachers to write the learning materials. Both content and language editors edit the materials, which come from higher learning institutions and other specialised institutions. The review of study materials is based on feedback from users such as learners, tutors and other stakeholders.
- **Assessment procedures:** IAE collaborates with NECTA in assessing and certifying learners.

The IAE has various training manuals, including an ODL implementation guide, ODL decentralisation guide, ODL training manual and ODL information booklet,

to ensure quality in all these areas. In resource mobilisation, IAE collaborates with local, regional and international agencies for financial support and capacity building.

4.0 CHALLENGES

Implementing the secondary equivalent programme at the IAE has brought some challenges over the years. Some of these include:

- Lack of ownership of physical facilities, particularly classrooms, due to IAE owning a limited number of buildings. Sometimes facility owners' plans and decisions can interfere with IAE daily routines.
- In some areas, particularly urban areas, there is a double-session teaching system that prevents the establishment of study centres on school premises. As a result, IAE is forced to rent expensive private buildings that are not always available when needed.
- Most facilitators and school inspectors lack skills in open and distance learning because their background is in the conventional education system so they need a lot of training in ODL methodology. A lack of resources makes it difficult for IAE to provide capacity building to ODL implementers in all 21 regions. As a result, training has been conducted in only four regions so far.
- The institute always operates without adequate funding because the government does not allocate a special budget for part-time tutors who work in ODL classes. The IAE pays them minimal honoraria which sometimes discourages them and makes them unreliable. Inadequate funds also prevent school inspectors from making regular inspections, especially to non-formal programmes where face-to-face sessions are conducted in the evenings after learners have finished work.

5.0 LESSONS LEARNED

ODL has become an acceptable and indispensable part of the education system around the world in both developed and developing countries. It is now regarded as a viable system of education and training with the potential to reach large numbers of learners at much less cost than the conventional education system. To ensure quality, governments should commit adequate funding to this form of education, especially when an ODL programme begins and a lot of capital investment is needed. If open schooling is poorly resourced, the quality of the education is bound to be compromised and so society will continue to regard it as inferior to formal schooling.

This case study has demonstrated that collaboration with various agencies and stakeholders is one way of gathering resources that support effective implementation and sustainability of ODL programmes. Institutions that provide education services through open schooling need to form collaborative relationships with both public and private organisations. The importance of collaborating with donors and/or financial agencies that can assist in capital projects cannot be over-emphasised.

6.0 CONCLUSION

This case study has highlighted the importance of quality assurance in ODL service provision. If open schooling is to meet national, institutional and learners' needs, we need to recognise the importance of strengthening the quality of provision. Therefore, ODL institutions need to consider the interrelated components of inputs, processes and products.

This case study shows that the IAE ensures quality in all its delivery processes. Its curriculum reflects both national and learners' needs. Study materials (modules) are written by subject experts from within and outside the institution. All procedures such as reviewing, editing and piloting are regulated through carefully

designed systems and instruments. Facilitators are teachers by profession and they are approved through credible and transparent processes. Available resources are shared with related educational institutions and with community organisations.

Assessment is conducted both internally and externally. NECTA, a recognised and credible body responsible for conducting final assessments at a national level for primary, secondary and teacher education, is used for external assessments.

Finally, the IAE attaches great importance to the issue of staff development as a way of ensuring that only people with the right expertise offer quality services. Capacity building is conducted for both permanent and part-time facilitators to familiarise them with ODL methodology because most of them come from the conventional education system. This is mainly done by organised training, seminars and workshops. IAE also provides opportunities to its staff to attend and participate in international meetings, workshops, study tours and short courses so they can share experiences and learn from others.

Every member of the institute is involved in its quality assurance activities to maximize buy-in of the quality assurance initiatives. Monthly and quarterly reports are used to obtain feedback on the implementation of the programme. These reports are sent to regional centres, IAE headquarters and the Ministry of Education and Vocational Training (MOEVT) for monitoring purposes.

Generally, maintaining quality in open schooling means the institution must put in place procedures and strategies (quality control mechanisms) to monitor quality and standards. These help to uncover defects, and to then take action to fix the problem. For an open school to be able to uphold quality, it needs a budget that can support its core activities. This means that planning and systematic strategies must be in place to achieve set targets and objectives. The IAE has a quality assurance framework that integrates policy and practice, and that informs a clear cycle of planning, implementation, monitoring and reflection to ensure that all stakeholders' needs are met.

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CASE STUDY 8: Advocacy and Information Dissemination

Information dissemination in open schooling:
A case study from the Zambia College of Distance Education (ZACODE)
Rhoda Mweetwa

1.0 INTRODUCTION

This case study shows how the Zambia College of Distance Education (ZACODE) circulates information to both current and potential learners, and highlights its efforts to educate the wider society on the benefits of open and distance learning (ODL) through advocacy. The case study focuses on the following quality criterion defined in this toolkit:

Quality criterion

Education services provided by the institution are effectively and accurately promoted in a variety of ways. (12. Advocacy and Information Dissemination.)

Quality elements illustrated

- *There is accurate and sufficient publicity about programmes to enable potential applicants to make informed choices. Institutional advertisements are truthful and professional.(ii)*

- *Employers and others who enter into collective agreements regarding education or training have received sufficient and correct information about the aims, content and outcomes, entry requirements and implementation of the programme.(iv)*
- *Information dissemination strategies form part of the institution's management of information system and are subjected to institutional cyclical reviews.(v)*

Correspondence studies, now called distance education, were offered in Zambia as early as the 1940s by commercial correspondence schools based in England, South Africa and Southern Rhodesia. In the past, distance education was regarded as good for people who were seen as academic failures in conventional schools. However, this attitude is slowly disappearing as society realises and recognises the effectiveness of distance education. In most of the countries in Southern Africa, open schooling is a new phenomenon and the importance of circulating abundant and correct information about this approach to schooling cannot be overemphasised. This case study illustrates how the Zambian College of Distance Education handles marketing, publicity and advocacy of open schooling. First of all, we need to give some brief background information on open schooling in the Zambian context.

2.0 CONTEXTUAL BACKGROUND

Distance education is not new to Zambia. As far back as May 1964, five months before independence, the Ministry of Education launched a pilot correspondence education school in Zambia. The school's main objective was to provide quality junior secondary courses that would be affordable for learners who could not be accommodated in the country's few secondary schools (Kabwasa and Kaunda, 1973).

The first advertisement for distance education courses received an overwhelming response: 1,577 enquiries for 150 spaces. By 1985, enrolment had increased to 33,000 throughout the country.

More recently, the number of learners in need of alternative forms of education has increased quite substantially. In 2003, 224,864 Zambian learners (99,227, or 44%, of whom were girls) sat the grade 7 examinations at the end of the primary phase. Only 107,132, or 48% (53,307, or 50%, of whom were girls), were selected to proceed to grade 8, or the first two years of upper basic education, in the formal system. In 2008, however, 332,279 learners (150,764, or 45%, of whom were girls) sat the grade 7 examination and 197,259, or 60% (98,023, or 50%, of whom were girls), were selected for grade 8.

These statistics show the pressing need for open schooling in Zambia. The government has responded by committing to further expansion of secondary education through open schooling. Although distance education started many years ago in the country, there was no national policy to regulate it. This has now changed as greater emphasis is given to alternative forms of education at both national and regional levels. Open and distance learning (ODL) is mentioned in such policy documents as the Ministry of Education's *Educating Our Future* (1996), the 'Poverty Reduction Strategy Paper' (2002), the Fourth and Fifth National Development Plan (2006) and the National ICT Policy (2007).

Because of concern about the lack of policy for the programmes offered through ODL, regional bodies such as the Southern African Development Community (SADC) sponsored the development of a national ODL policy in November 2009 to act as a guide to the management and delivery of ODL in all institutions, some of which do not belong directly to the Ministry of Education.

The policy addresses issues of ODL systems, learner support, assessment, management and administration, programme development and the application of appropriate information technologies (ICTs).

The policy:

- provides guidelines in administrative and management procedures in ODL,
- regulate the operations of ODL programmes,
- promotes the development of sustainable ODL programmes administered in accordance with the principles and practices of ODL,

- provides for the increased access to learning opportunities by a wide diversity of the out-of-school groups of the population,
- aims at providing quality education through open and distance learning,
- creates opportunities for gender equity through the use of ODL programmes,
- confirms the government's commitment to ODL as an equally suitable mode of education delivery, and
- provides for the education of people with special learning needs, those in isolated and distant places, and other vulnerable groups.

3.0 MARKETING, PUBLICITY AND ADVOCACY BY ZACODE

For the out-of-school population to take full advantage of ZACODE's services, they need support, including sufficient information at the pre-registration, registration and post-registration stages. The college uses several methods to ensure that the information reaches all potential learners.

3.1 There is accurate and sufficient publicity about programmes to enable potential applicants to make informed choices. Institutional advertisements are truthful and professional.

The institution publicises its programmes in brochures that give important details:

- ZACODE is located on plot number 41 along Independence Avenue in Luanshya, Copperbelt's, town centre.
- Enrolment for grades 8–12 is open to anyone with the potential to start learning to improve their qualifications or try again to complete their education.

- The Alternative Upper Basic Education (AUBE) and Alternative High School Education (AHSE) programmes are not restrictive. Learners study at their own pace and when they are ready to sit their examinations they register at designated examination centres.
- ZACODE sells materials in the following six subjects at both basic and secondary school levels:

BASIC SCHOOL LEVEL	SECONDARY SCHOOL LEVEL
Mathematics	Mathematics
English Language	English Language
Environmental Science	Science (Chemistry and Physics)
Civics	Commerce
Geography	Geography
History	History

Figure 1: Subjects offered at basic and secondary school levels

The materials are written by practising teachers and lecturers at ZACODE who are also subject coordinators. The writers follow the approved syllabi so the content is the same as that in the conventional schools. Giving this information to learners helps build public confidence in the ZACODE programmes.

When learners register and pay for the first six modules – either directly with the college or at any study centre – they receive a package of no more than six modules. The learners study at their own pace but at the college or study centres they receive tutorials. At the senior secondary level (grades 10, 11 and 12) there are three modules per grade for each subject. Learner success also depends heavily

on learners knowing what support the college offers. ZACODE has brochures with support information and also offers introductory sessions when students register.

The college sometimes writes to applicants if the administration needs more information. In the case of such inquiries, sometimes the college sends application forms and registration slips to the applicant when they want to enrol directly to the college but are restricted by distance.

The college also relies on past and present students to spread the word about the college and its services.

The following information on fees is provided to learners through the college, the senior education officers, centre coordinators and brochures.

- The unit cost of each module is K30,000.00 (US\$6.47).
- Learners taking six subjects, therefore, shall pay K180,000.00 (US\$38.84) for all the six modules.
- Fifty-six percent of the funds collected towards the purchase of the modules shall be remitted to ZACODE while 44% of the funds will be retained at the centre for programme support such as payment of coordinators and tutors.

This translates as follows:

- For one module it will be:

ZACODE Fee	Centre Fee
$56/100 \times K30,000.00$	$44/100 \times K30,000.00$
= K16, 800.00 (US\$3.63)	= K13, 200.00 (US\$2.85)

- For six modules

ZACODE Fee	Centre Fee
$56/100 \times K180,000.00$	$44/100 \times K180, 000.00$
= K100, 800.00 (US\$21.75)	= K79, 200.00 (US\$17.09)

Whenever there are changes in the fee structures, stakeholders are informed through messages broadcast on the radio or published in the government tabloids, the *Zambia Daily Mail* and the *Times of Zambia*, or on posters that are put up at strategic places in town and around the college.

3.2 Employers and others who enter into collective agreements regarding education or training have received sufficient and correct information about the aims, content and outcomes, entry requirements and implementation of the programme.

The stakeholders who live nearby can get all the information they need by visiting the college. Potential learners sometimes get information from the advertisements that are run on the public radio station five times every quarter. The same advertisements are also placed in the daily tabloids mentioned above.

Information is also made available to stakeholders at annual events throughout the country. One of these is the International Trade Fair, held in Ndola on the Copper Belt, where international companies and non-governmental organisations (NGOs) and some government ministries showcase their goods and services. The Ministry of Education also takes part to showcase what some of the institutions offer. ZACODE displays the modules, brochures, registration slips and application forms for anyone interested in the programmes. Another event is the Agricultural and Commercial Show which is held annually in the capital city, Lusaka.

To ensure that potential learners take full advantage of the college's services, information on entry qualifications for the junior and senior secondary schools is widely and continuously available at district and provincial centres throughout the country.

3.3 Information dissemination strategies form part of the institution's management of information system and are subjected to institutional cyclical reviews.

The college has a database to store learners' information and files for learners' profiles. The database is updated periodically. The tutor-marked assignments are recorded and filed in the learner record cards. The college will telephone learners with any urgent information and assignment feedback.

Tutors usually write to learners after the assignments have been marked to give them more comprehensive feedback. The feedback is posted to the learners. It can take some time for the feedback to reach the learners but generally the system is very reliable. Where possible the college calls the learners to inform them that the tutor comments have been posted. The college puts a lot of effort into communicating with learners.

The college pays both its mobile phone and landline bills. The college advertises quarterly in the media. Radio advertisements cost K80,000.00 (US\$17.26) per minute during prime time and television advertisements cost K2,300,000.00 (US\$496.33) per minute during prime time and K1,400,000.00 (US\$302.05) at other times.

The college plans to connect the study centres to the college headquarters to monitor enrolment for easy updating of information. It currently relies on the centre coordinators to do this. There are staff structures at headquarters, headed by a Principal Education Officer (PEO), at the Provincial Centre, headed by a Senior Education Officer (SEO) for ODL, and at the district level, headed by an Education Standards Officer (ESO), for ODL. From the outlined structure there is representation at various levels for the college to disseminate information about the programmes. These various structures facilitate effective dissemination of information regarding college programmes.

4.0 CHALLENGES

ZACODE faces numerous challenges in terms of advocacy and information dissemination. The most prominent include the following:

- There is a shortage of both academic and support staff. The college uses a lot of part-time teachers which is quite expensive for the college board.
- The college would benefit from a proper printing press. It has had a lot of difficulties when printing modules because the printing machines' capacity is very limited. The advertisements in both the print and electronic media are also quite costly for an institution that is almost entirely dependent on learners' tuition fees. Even if the college works with its sister unit at the directorate in charge of the Education Television Services (ETVs), the advertisements are still very expensive because the ETVs only allow ZACODE to have advertisements aired while the rights are with the National Broadcaster in Kitwe, the Zambia National Broadcasting Services (ZNBC).
- Feedback to and from the learners is poor due to a lack of adequate ICT connectivity. The college needs to have reliable network connectivity to keep pace with modern technology. The college therefore needs to design short courses for staff to train in ICT. The college also uses postal services to send modules and other materials to learners. This method is expensive and slow, and the college could lose learners who are not prepared to wait for feedback.

5.0 LESSONS LEARNED

The college could do better if the infrastructure were improved and some new equipment purchased. It needs to introduce continuous staff development to keep staff up to date with distance education strategies, especially ICT-supported delivery strategies. Interaction with other ODL providers would be very helpful for them to learn from good practices; study tours locally and regionally and

exchange visits amongst the local ODL institutions would be ideal. The college should have a full complement of full-time staff instead of its current skeletal staff.

6.0 CONCLUSION

Being a distance learning institution, ZACODE plays an important role in providing access to education via the ODL system. There is a need for continued advocacy of this mode of access to education so that stakeholders can raise more support for the institution. This is critical if the large numbers of learners that come through the college are to experience quality education. The directorate wishes to see the college rejuvenated and operating like other distance education institutions in the SADC region. Educating stakeholders about the role that ODL can play in broadening educational access and providing sufficient information to learners before, during and after registration are given top priority at the Zambian College of Distance Education.

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CASE STUDY 9: Establishing a quality assurance system: The NAMCOL experience

Harold Guiob – NAMCOL

1.0 ABOUT NAMCOL

The Namibian College of Open Learning (NAMCOL) is a state-supported educational institution created by an act of parliament to provide learning opportunities for adults and out-of-school youths. The college was first established as a directorate in the Ministry of Education in November 1994, although the long-term plan was for it to be an autonomous body under the direction of a board of governors. NAMCOL officially separated from the Ministry of Education and became indirectly state-controlled on 1 April 1998. Its core activity has traditionally been its programme of alternative secondary education that allows learners at JSC (grade 10) and NSSC (O) (grade 12) levels to complete their secondary education. It also offers a range of professional programmes as well as computer training at its state-of-the art computer centre in Katutura, Windhoek. NAMCOL is currently the largest educational institution in the country and has more than 25,000 learners.

2.0 THE QUALITY ASSURANCE PROCESS

The quality assurance process at NAMCOL was introduced in 1999 by NAMCOL's founding director, Frances Ferreira, now with the Commonwealth of Learning and based in Vancouver, Canada. After returning from a high-level quality assurance workshop in Lusaka, Zambia, Ferreira developed a personal vision for the creation of a culture of quality in NAMCOL. As a first step, she conducted sensitisation workshops for all NAMCOL staff. This was followed by a training intervention for management on quality assurance in November 1999, presented by the renowned quality assurance guru Professor Kallie Strydom from the University of the Free State in Bloemfontein, South Africa. Soon after, the managers organised a workshop to teach their new skills to the rest of the staff. This approach ensured staff ownership of the quality assurance process.

Since then, the college has made significant strides in developing and setting up a quality assurance system.

3.0 SETTING THE SCENE AND CREATING A CONDUCTIVE ENVIRONMENT

The following outline presents the evolution of the quality assurance process at NAMCOL and highlights its relation to the set of key determinants for successful quality assurance in open and distance learning (ODL).

3.1 Aligning the quality assurance process with the strategic planning and management processes

NAMCOL's quality assurance system is integrated with the institution's strategic management process. Quality is and has always been one of NAMCOL's strategic goals. Its quality assurance process is cyclical and is essentially based on a system of planning, implementation, evaluation and revision/improvement.

3.2 Clarifying which notions of quality are relevant and analysing the quality environment

We should note that the college has adopted two notions of quality: quality as fitness for purpose (the need to provide quality educational services to learners by fulfilling their needs, expectations and requirements) and quality as value for money (the fact that the public would like to see investments in NAMCOL as money well spent). A quality assurance situational analysis was conducted in 2001/02 with a view to developing a quality assurance system for the college. The situational analysis was aimed at:

- determining which planning processes were already in place and their alignment with institutional goals,
- determining which quality assurance mechanisms and procedures were already in place at an operational level, and
- identifying quality assurance gaps on the basis of what the college already had.

This analysis was vital as it provided a snapshot of the institution's quality assurance. The results of the situational analysis were used to customise quality assurance criteria for the college.

Furthermore, the college's quality assurance system is based on principles of self-evaluation (quality assurance and quality improvement) because Namibia does not have a national quality assurance strategy.

3.3 Principles of evaluation

NAMCOL also identified the need for external quality audits. A memorandum of understanding was therefore signed with the Botswana College of Distance and Open Learning (BOCODOL) in 2002 and included a commitment to conduct inter-institutional quality audits every two years. BOCODOL was in Namibia from 1 to 5 August 2005 for its first external quality audit of NAMCOL.

A joint framework for these audits was developed as a direct outcome of the audit and NAMCOL conducted a reciprocal audit on BOCODOL in October 2005. To date, three such external audits have been conducted.

3.4 Support from institutional leadership

NAMCOL's director started the quality assurance initiative and remained committed to the process throughout her tenure. The current director, Heroldt Murrang, has also expressed his unwavering support for the process.

Management's continuing commitment to the quality assurance framework is being ensured through institutional arrangements to lodge the management of the process with the Deputy-Director: Programmes and Materials Development (DD: PMD). As DD: PMD, Jerry Beukes has epitomised the quality assurance agenda of NAMCOL. It is expected that the incoming DD: PMD, J. Nitschke, will be equally enthusiastic about the quality assurance agenda.

3.5 Developing and implementing the quality assurance policy and plan

As the first step in developing a quality assurance policy framework for NAMCOL, two members of staff from the support division were seconded to the University of the Free State in Bloemfontein, South Africa, to conduct extensive research. The first draft of the policy was developed during that secondment. When the two returned to NAMCOL, they worked on the policy draft with management and staff. The policy was revised and submitted to the board for its consideration and approval. NAMCOL's quality assurance policy framework and a properly aligned implementation plan were approved by the board of governors in November 2001.

The policy affirms the underlying philosophy and approach to quality assurance and sets out roles and responsibilities for all members of the institution, including the board of governors. Specific implementation strategies are also outlined and strategic focus areas are identified. The policy is reviewed and revised regularly to ensure its continuing relevance.

3.6 Creating a quality culture

The quality assurance process at NAMCOL is guided by the founding director's vision of cultivating and sustaining a culture of quality. One of the more creative strategies adopted to realise this vision was the Zero-Defects Day campaign that ran from May 2002 until March 2003. During this period, zero-defect days, each with a particular theme, were organised. Some of the themes included:

- changing staff attitudes to promote quality,
- cost-effectiveness without compromising quality, and
- effective customer care.

On these days, staff were required to list their activities for the day on a specially designed scorecard and to indicate any mistakes they made that day. Group discussions were held at the end of the day so staff could share their experiences. This strategy was aimed at consolidating experiences and entrenching a quality culture in the institution. One of the most significant challenges that emerged was involving staff at a regional level. Their participation required more effort and they also missed out on the group feedback sessions and most of the other special events organised at head office level.

3.7 Evaluating performance in strategic quality management areas

In accordance with the provisions of the quality assurance policy framework, the college has conducted four internal quality audits (2003, 2004, 2007 and 2009). The audits were based on a set of quality criteria for distance education developed in South Africa and adopted and customised by NAMCOL for this purpose. The focus of the first audit was on identifying quality gaps (based on the situational analysis and the quality criteria), and the second audit focused on the following:

- progressing with the implementation of recommendations from the first audit,
- developing new strategies to address the remaining quality gaps, and
- ensuring thorough preparation for the external audit.

The internal audits normally take the form of self-evaluation at divisional/regional level with some degree of cross-evaluation at head office level. Documentary evidence is required in the auditing process to prove that actions related to quality assurance have been accomplished. Reports are then prepared, discussed and consolidated at a quality assurance retreat, and normally an action plan is then developed. Internal quality audits are done once a year. The college is aware that its quality criteria should be reviewed every year to reflect new developments and standards and benchmarks should be clearly specified for all operational areas. It is currently working towards this.

3.8 Ensuring the involvement of all staff

All the college staff received orientation and training at the beginning of the process. There is a need, though, to do more in this respect to bring new members on board and ensure that all staff keep abreast with developments in the quality assurance debate. The college's performance management system requires all staff to include standards of achievement as part of their performance criteria and objectives. Furthermore, quality assurance teams have been established in the various divisions/regional offices to lead quality initiatives at an operational level. All these strategies are aimed at maximising the involvement of staff in the quality assurance process. However, there is a definite need to ensure that quality assurance teams adopt a more proactive approach instead of their current reactionary approach. Quality assurance teams must continuously analyse systems, processes and procedures at an operational level and devise strategies to improve current practices. They can also develop and put in place plans to ensure that a quality assurance culture is further entrenched at an operational level.

3.9 Effective communication

All staff are informed about quality assurance initiatives and audit reports are circulated to all members for discussion at divisional/regional meetings. Unfortunately, communication remains a challenge as a percolating top-down and bottom-up process of communication has yet to be achieved. NAMCOL also needs a proper quality management information system in the foreseeable future.

3.10 Reviewing the quality assurance system

NAMCOL has obviously done a lot to establish a quality assurance system based on principles of self-evaluation. Overall, the approach is pragmatic and systematic and some tangible results are already visible (e.g., improved examination results). However, the college faces the challenge of revisiting the entire quality assurance system to ensure that it remains adequate and relevant.

The college has already developed a quality and standards document that contains important information about its operations (systems, processes and procedures) as a first step towards addressing this challenge. The review process should be comprehensive and will require dedication, hard work and commitment from all members of the institution. If the college is to be transformed into an ODL centre of excellence.

4.0 CHALLENGES

NAMCOL has made concerted efforts to advance the quality assurance agenda of the college and cultivate a quality assurance culture. The Quality Assurance policy is now fully operational and the QA Committee operates at an institutional level, with QA teams operating at divisional /regional levels. Moreover, QA is one of NAMCOL's strategic objectives. All divisions are required to report quarterly on QA issues. Internal audits are conducted annually and external QA audits are conducted on bi-annual basis between NAMCOL and BOCODOL. The outcomes of these audits are developed into action plans and used to address the quality gaps on a continuing basis.

5.0 CONCLUSION

The college has recorded some significant achievements to date, but a lot more planning, implementation, evaluation and review/improvement are required to achieve the institution's vision of becoming a world-class institution.

Continuous improvement is the key to further success. NAMCOL and all other ODL institutions in Namibia must embrace quality assurance and demonstrate its essential components if they wish to make a significant contribution towards the attainment of Vision 2030.

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CHAPTER FOUR

Conclusion

Ephraim Mhlanga

The first three chapters of this toolkit each provide essential tools for practitioners in open schools. Chapter one opens with a rationale for investing in open schooling in developing countries. It highlights the startling numbers of learners who have no access to secondary education in Sub-Saharan Africa and argues why countries should increasingly invest in open schooling to increase access at this level of education. The chapter sends a very strong message to both planners and practitioners in open schooling to not only expand this mode of schooling, but also to ensure that the quality of offerings is not compromised in the process. Chapter one also explains what open schooling is all about, as the term seems to be used differently in different contexts and is often confused with distance education. It underscores the importance of regulating open schooling through national policy to maintain quality. The last part of the chapter explains what we mean by quality and quality assurance, terms that are often highly contested. Both terms are relative and are often viewed differently within an institution, let alone a country. This section guides people in an institution to a common understanding of these key terminologies so they can put them into practice in their institutions.

Chapter two deals with criteria that define the various aspects of open schooling that require attention in terms of quality assurance and gives a different set of tools. The defined criteria and their constituent elements guide institutional planning processes and form an important basis for regular self- and peer reviews.

They can also be used in any context to determine the readiness (or minimum standards) of a provider who plans to offer open schooling. Thus, institutional accreditation can follow the criteria defined in this chapter. This aspect is very important for protecting learners against unscrupulous providers, especially given the extent to which the education market is opening up to private providers. In this toolkit, we emphasise continuous improvement in setting quality benchmarks and we encourage open schooling providers to measure their performance and set their benchmarks using the quality criteria defined in chapter two, and possibly many more that institutions can innovatively set. Once again, we refer readers to Appendix A for a more conceptually appealing model of quality improvement in an institution.

Chapter three is made up of case studies that show how quality assurance is put in practice in different contexts. This conclusion focuses heavily on chapter three as we can learn important lessons from these ‘narratives of good practice’. These lessons, drawn from what is present and what is conspicuously absent in a given case, are the main tools to be derived from this chapter.

LESSONS FROM CASE STUDIES

Consistent with our experience, most case studies show that open schools are mostly targeting learners who either missed out on formal secondary education or who need a second chance to earn secondary qualifications. Most learners in open schools are youth between the ages of 20 and 30 years. There are, however, also adult learners who work while they participate in open schooling. It is very important to take into account the age factor when designing programmes, especially learner support strategies in an institution. The age factor is also significant when making policy decisions regarding the main groups that should be targeted by open schooling initiatives. Although open schooling is seen as a way of expanding access at the post-primary level, the evidence suggests that very few learners under the age of 18 participate in this type of schooling.

As readers may have seen from the case studies, the various quality elements are interrelated in terms of how they are practised. For example, programme development involves learner support, course development involves materials development (see the NIOS and the NAMCOL case studies) and student assessment involves programme and course development. At the core of open schooling is programme and course development; all the delivery aspects have to be conceptualised and planned at the programme and course development stage. A sound quality assurance system is based on sound planning of all institutional activities; all aspects of institutional operations are interrelated and should be well coordinated. This point leads to the next aspect that comes out clearly in the case studies: policy.

A facilitative overarching policy regulating ODL provision in a country and institutional policy guiding operational modalities is essential to success in ODL. Case studies show that where there is a national policy on ODL there is greater support for open schools and they tend to do well (see case studies 2, 4 and 6, for example). National policy shows a government's political will to support ODL provision, financially and otherwise. This support is needed if ODL is to reach parity with conventional schooling in a country, especially where new ODL initiatives are being introduced and few people are familiar with this mode of education. The importance of advocacy and information dissemination cannot be overemphasised and national policy plays a central role in this respect.

There should also be an institutional policy, guided by national policy and possibly framed as part of a broad national educational framework, that spells out what the institution stands for and how it intends going about its core business. An institutional policy guides stakeholders in implementing ODL activities in line with the mission of the institution. As pointed out in the introduction of this toolkit – and indeed as demonstrated in some of the case studies (see case studies 2 and 7) – we emphasise the importance of harmonising the mission and goals of an institution with all its other activities, quality assurance included. Such a harmonised system needs integrated planning that is guided by a clear institutional policy.

The rigours associated with studying through ODL are well documented in the literature. Interactions with providers of open schooling confirm some of the problems faced by learners who study in isolated conditions. Successful open schooling should have in place sound learner support systems that help counteract some of these learning challenges, which arise primarily from what Moore refers to as ‘transactional distance’.¹ In Moore’s view, the physical separation of the learner from the tutor creates a psychological and communications space in ODL, but providing social interaction through learner support helps minimise this space. Case study 5 from BOCODOL illustrates how providing a social learning environment through collaborative learning, academic and social counselling, and using information technology for prompt responses to learners’ queries all contribute to high learner success and throughput rates. The NIOS case study also underscores the importance of providing learner support activities over and above the learning materials. Learner support is addressed in several of the case studies. Although the means for providing learner support vary between institutions and according to the different types of learners, it should always be at the core of institutional provisioning and should be informed by the learner profile (and varied learner needs) accurately captured by the institution. The ultimate aim of having quality assurance mechanisms in place in an institution is to maximise the academic experiences of learners, and the learner support strategy of a provider is key in this respect.

In one way or another, nearly all the case studies in this toolkit highlight the importance of partnerships in enhancing the quality of open schooling. In many instances, open schools forge partnerships with other educational institutions and private and community organisations to mobilise their resources. Most open schools have agreements so that learners can use facilities owned by conventional schools: classrooms, libraries, telephones and photocopiers, for example. They also rely on staff from conventional schools and other higher education institutions for developing and reviewing their learning materials. Identifying and using existing facilities and infrastructures are a commendable and cost-effective way of offering open schooling in most of the countries that contributed case studies. Open schooling is characterised by learners who are diversified in terms of

1 Moore, cited in Keegan. *Theoretical Principles of Distance Education*, pp. 22–38.

their age, entry levels and geographical locations. Putting up new structures to cater for learners in isolated areas, for example, is therefore not a viable option.

An important lesson that emerges from the case studies is the importance of aligning open schooling curricula with conventional school curricula and subjecting learners to a common examination system. Such alignment gives learners in open schools the option to re-enter the conventional system if and when they wish to. In addition, common curricula and examinations also allow both vertical and horizontal articulation of qualifications with those of other institutions (see case study 1 from NAMCOL). As pointed out above, most learners in open schools are youth between the ages of 20 and 30 years. These learners often aspire to tertiary education, including university education, just like their counterparts from the conventional school system. Open school curricula should provide them with this opportunity.

It is clear from almost all the case studies that open schools are still heavily dependent on print materials. This places materials development at the core of open schooling in these schools. Clear procedures and processes for ensuring the timely development, production and delivery of materials are therefore very important in an institution. The development of learning materials is a team exercise that draws on a variety of experts including course developers, writers, graphic designers and content reviewers. Case studies 2 and 3 from Emlalatini Development Centre (Swaziland) and National Institute of Open Schooling (India) respectively confirm that sound learning materials are the sum product of the coordinated efforts of these various people. Another important point in these two case studies is the importance of tailoring learning materials to learner profiles and reviewing the materials regularly to keep them up to date with learner needs and changing knowledge.

In ODL, learning materials do the teaching, hence the need to base the writing on sound pedagogical principles. Amongst other requirements, materials should be logically structured with the concepts properly sequenced. They should encourage both mental and social dialogue, they should promote reflective thinking and they should provide an opportunity for learners to test their understanding of concepts. Case studies 2 and 3 show that if an institution wants to produce materials that meet its aspired standards, it needs a house style to guide the writers.

Open schools need clearly designed learner assessment systems that are integrated with the teaching and learning processes. Case study 4 eloquently explains the importance of enhancing teaching and learning through continuous assessment. It also emphasises the centrality of achieving correct relative weighting of continuous assessment and summative assessment, and ensuring the validity of the system as a whole. Due to the dispersed nature of learners, some way has to be devised for ensuring that the assignments submitted to and assessed by the school are the work of the correct learners.

A key aspect that determines learner success and throughput rates in open schooling is the provision of sound learner support. Open schooling does not mean abandoning learners to find their own way throughout their studies. Rather, its success relies on sound support and scaffolding of learners so that they do not feel lonely in their academic journey. This is the message in case study 5 from BOCO-DOL which explains its strategy to ensure that all its dispersed learners, including those in remote rural areas, are supported in their studies.

Open schools, like any other ODL institution, are characterised by a dispersed clientele system and distributed institutional services. For the efficient management of such services, case study 6 shows that it is necessary to decentralise management and administrative roles and responsibilities. This needs an appropriate management structure, one where the reporting and accountability lines are clearly defined. An accurate, up-to-date database of where students are located, the programmes they pursue and the facilities they have access to should be maintained to guide the decision-making and other administrative processes of an open school.

This toolkit addresses quality assuring open schooling in general. The message in case study 7 is that a clear quality assurance framework that is linked to the mission and goals of an institution is essential in an open school. The case study clearly shows that to strengthen the quality of ODL provision, providers should consider the interrelated components of inputs, processes and products of institutional business, what is sometimes referred to as the 'production model'² of quality assurance.

2 Tam. 'Measuring Quality and Performance in Higher Education'.

Finally, the need to provide potential clients with sufficient and accurate information about opportunities in ODL in general and in open schooling in particular cannot be overemphasised. Case study 8 informs readers of some of the strategies that can be used in circulating vital information on open schooling to the society. The case emphasises the need for open schools to adopt different channels of communication to reach its diverse clientele. However, simply providing information to potential clients is not enough to convince people of ODL's vast potential. Society must see ODL fulfilling its promises if open schooling is to be seen as legitimate as traditional education.

Case study 9 gives a practical example of how a quality assurance system was introduced and systematised in NAMCOL, one of Southern Africa's flourishing open schools. It clearly shows the measures required to plant and nurture the seed of a sound quality culture in an open school. Amongst other things, it highlights the importance of managers of open schools having foresight and the ability to be proactive. This is essential if they want to promote a vision of quality in their institutions and take positive steps to equip everybody with the relevant knowledge, attitudes and values while they are putting in place the appropriate structures and systems to support a sustainable quality assurance system. We hope that the processes in this example, which was written by an experienced practitioner with first-hand experience of the processes, will be valuable to people in other open schools, especially those who want to initiate new quality assurance systems in their institutions.

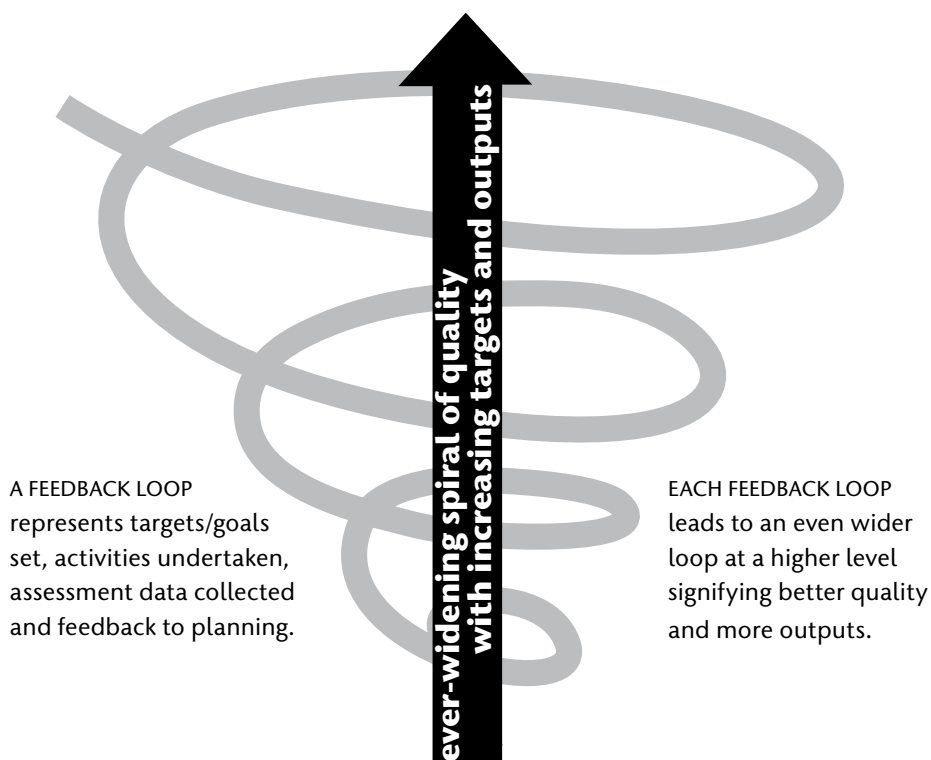
Finally, an observation from the case studies is that in general there is very limited use of ICTs in open schooling throughout the developing world. Unless open schools fully embrace new communication technologies to support curricular implementation, they risk missing out on the opportunity to provide more efficient and user-friendly forms of schooling. We therefore strongly recommend that open schools, working in concert with governments, should plan to invest heavily in ICTs as a way of improving access to quality open schooling to large numbers of learners.

In summary, we encourage readers of this toolkit to take from the case studies their own lessons and to use those lessons to improve their practice. Look at both the positive and the negative aspects of the case studies, and build on what they can teach you.

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APPENDIX A: A Quality Spiral



An ever-increasing spiral of quality (adapted from Wehlburg, C.M. [2007])

Wehlburg's notion of an assessment spiral is important in quality improvement. The feedback loop consists of setting goals and outcomes, implementing activities to achieve those goals, measuring curriculum transactions (including learning) and introducing changes based on the findings from the measurements.

An important question that Wehlburg's spiral model addresses is: What happens at the end of the feedback loop (circle)? The answer lies in the essence of what she describes as a spiral that never closes, that presumes that quality is ever improving and that appropriate and meaningful changes occur in student learning, in outcomes, and in ways that the outcomes are measured.¹

The assessment spiral visually demonstrates that the process is continuous and that as we increase the quality of student learning and the ways in which we measure it, we will be moving upward in the spiral.²

The assessment spiral presumes that quality will increase and that appropriate and meaningful changes will occur in student learning and outcomes, and in the ways that these outcomes are measured.³

This model is a useful way of thinking about continual self-improvement based on collected data. It allows an institution to be fully aware of where it stands in terms of quality and helps in the setting of new targets, strategising to achieve the targets and monitoring progress towards the achievement of the set targets. The model is an improvement model and we recommend that open schools adopt an improvement approach to quality.

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- 1 Wehlburg. 'Closing the Feedback Loop Is Not Enough: The Assessment Spiral'.
 - 2 Wehlburg.
 - 3 Wehlburg.

APPENDIX B:

Materials development costs: The NAMCOL costing instrument

Committed Costs

Guides

PERMANENT STAFF	RATE PER DAY	NO. OF DAYS	COST
Programme Manager			
Programme Developer			
Materials Production Manager			
DTP Technician			
Typist			
SUBTOTAL			

Assignments

PERMANENT STAFF	RATE PER DAY	NO. OF DAYS	COST
Programme Manager			
Programme Developer			
Production Manager			
DTP Technician			
Typist			
SUBTOTAL			
TOTAL (1)			

Flexible Costs

Guides

SUBJECT	CONTRACT STAFF	RATE PER PAGE/UNIT	NO. OF PAGES/UNITS	COST
	Writers			
	Content Editors			
	Language Editors			
	Proofreading			
TOTAL				
	Writer			
	Content Editor			
	Language Editor			
	Proof Reader			
TOTAL				
	Writer			
	Content Editor			
	Language Editor			
	Proof Reader			
TOTAL				

SUBJECT	CONTRACT STAFF	RATE PER PAGE/UNIT	NO. OF PAGES/UNITS	COST
	Writer			
	Content Editor			
	Language Editor			
	Proof Reader			
TOTAL				
	Writer			
	Content Editor			
	Language Editor			
	Proof Reader			
TOTAL				
	Writer			
	Content Editor			
	Language Editor			
	Proof Reader			
TOTAL				
SUB-TOTAL				

One (1) unit is added to each guide to represent the Course Outline.

Assignments

CONTRACT STAFF	RATE	NO. OF ASSIGNMENTS	TOTAL COST
Assignment Setter			
Assignment Moderator			
SUBTOTAL			
TOTAL (2)			

Indirect Common Costs

50% of Total Administrative Costs (Please see below)	
TOTAL (3)	

Production Costs

Guides	
Assignments	
TOTAL (4)	

Summary of Development Costs

TOTALS 1 + 2 + 3	
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Calculating Unit Cost

Total Development Cost ÷ (no. of learners x no. of years)	
Plus Total Production Cost (4)	
TOTAL UNIT COST	

Administrative Costs

Office space <i>including water & electricity</i> (N\$200.00 × 9m ² × 12 months)	
Telephone (N\$150.00 × 12 months)	
Fax (N\$100.00 per year)	
Transport (N\$0.65 × 80km/month × 12 months)	
Stationery (N\$ 58.00 per person per month)	
Internet (N\$170.00 × 12 months)	
Postage & Courier (N\$100.00 × 12 months)	
SUBTOTAL	
Miscellaneous (5% of subtotal)	
TOTAL	

The contributors

Ephraim Mhlanga is a senior education researcher at the South African Institute for Distance Education (SAIDE). He has a PhD from the University of the Witwatersrand (Wits) in Johannesburg and the title of his thesis was 'Quality Assurance in Higher Education in Southern Africa: The case of the universities of the Witwatersrand, Zimbabwe and Botswana'. He also holds a master's degree (1992) and BEd (1999) from the University of Zimbabwe, and a Postgraduate International Diploma in Educational Planning and Management from IIEP-UNESCO in Paris (2001).

Mhlanga was a lecturer in Educational Policy Planning and Management at the Zimbabwe Open University for six years and taught at the University of Zimbabwe for three years before joining the Zimbabwe Open University. He has extensive experience in both school management and teaching.

Since he joined SAIDE in January 2007, Mhlanga has been involved in many projects on schooling in South Africa and in the Southern African region in general. In 2008, he conducted a study on behalf of the Association for the Development of Education in Africa (ADEA) on the use of Open and Distance Learning (ODL) in expanding post-primary educational provision in Africa. He presented his findings at the ADEA 2008 Biennale in Maputo. In September 2008, he facilitated a week-long workshop for people working in open schools in Commonwealth countries. This workshop was the basis for the development of this quality assurance toolkit, which he also coordinated. In September 2010, he gave a keynote address on quality assurance at the Distance Education Association of Southern Africa (DEASA) conference held in Lilongwe, Malawi. His main area of interest is educational policy studies, with a particular focus on quality assurance.

Gopa Biswas joined the Open School (known in 1989 as the National Open School and renamed the National Institute of Open Schooling in 2002) as an English tutor. She worked as a Project Fellow in the Question Bank Project and is now a deputy director in the Academic Department of NIOS. Before joining the Open School, she taught in the Education Department of the University of Delhi and also at primary and secondary school level. She has direct experience of the distance education system: she completed her Post Graduate Certificate in Teaching of English and Post Graduate Diploma in Teaching of English from the Central Institute of English and Foreign Languages, Hyderabad, and the Post Graduate Diploma in Distance Education from Indira Gandhi National Open University (IGNOU). Her area of interest is the development of instructional materials in print and she has a number of publications to her credit.

Nokuthula Vilakati holds a BA in Humanities and Post Graduate Certificate in Education, both from the University of Swaziland, an MA in International Education and Development from the University of Sussex, UK, and a Certificate for Distance Education Practitioners from the University of South Africa. As a lifelong learner, she is now about to complete a Commonwealth of Learning-funded online Master in Instructional Design and Technology with the Open University of Malaysia. She currently works as a Coordinator, Materials Design and Development at the Institute of Distance Education, University of Swaziland, and was a contributor to the content developed for the Virtual University for Small States in the Commonwealth (VUSSC) Project. She has also worked as a publisher with Macmillan Swaziland National Publishers, a high school teacher and an examiner with the Teaching Service Commission and the Swaziland National Examinations Council.

Nozipho Dulcie Ziyane is the vice-principal of Emlalatini Development Centre (EDC). She completed her BA and Concurrent Certificate in Education at the then University of Botswana and Swaziland. She then taught at a number of senior secondary schools in Swaziland taking up the post of editor at the EDC. Whilst in this position she trained in distance education. She successfully completed a Certificate in Distance Education for Practitioners from UNISA, a Post Graduate Diploma in

Distance Education and an MA in Distance Education from Indira Gandhi National Open University. After completing these courses she moved into her current position.

Messias Bila Uile Matusse has been working in education since 1977. During his career he has held management positions at various levels in Mozambique. He was appointed school principal, then District Education Manager and then Director of Education in Maputo. In 2000, he became involved with open and distance learning when he took a position as a director of a teacher training college that contained a learning centre for distance education programmes provided by the Ministry of Education through the Instituto de Educação Aberta e à Distância (IEDA). In 2007 he became the Director of IEDA, which runs the Programa do Ensino Secundário à Distância (PESD), and he remains in that position today. Matusse completed his BA in Pedagogy and Psychology at the Universidade Pedagógica, Maputo, Mozambique, in 1992.

Baraka Kionywaki currently works at the Institute of Adult Education in the Department of Distance Education as a tutorial assistant. He holds a BA in Education (Mathematics and ICT, 2006) and a Diploma in Education (Mathematics and Physics) from Monduli Teachers College. He taught mathematics, physics and computer studies in various secondary schools in Tanzania from 1996 until 2006 and joined the Institute of Adult Education in 2006.

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Mary L. Kimathy is a tutorial assistant at the Institute of Adult Education. She holds a BEd in Adult Education from the University of Dar-es-Salaam (1999). She has been working at the Institute of Adult Education in the Department of Distance Education for 10 years and has experience in Distance Education. She is currently pursuing a master's degree in Distance Education at the Open University of Tanzania.

Fancy Lorraine Amey is currently Director of Learner Support Services at the Botswana College of Distance and Open Learning (BOCODOL). Prior to joining BOCODOL in 2000, she was a student advisor at the Distance Education Unit of the Department of Non-Formal Education (1990–1998), then head of Learner Support from 2000 until 2002. Amey has been instrumental in the design, development and implementation of the BOCODOL learner support model and contributed to the compilation of the first (1998) and second (2005) editions of the *DEASA Case Study* books. She has also shared her experiences in the provision and management of learner support with specific reference to open schooling through presentations at local and international levels, including visits to Mozambique, Lesotho and Namibia amongst others. In 2008 Amey was part of a team that contributed to the development of the *Open Schooling Handbook* (Commonwealth of Learning [COL]).

Mabel K. Bothasitse joined Botswana College of Distance and Open Learning (BOCODOL) in December 2009 as a research coordinator. Before that she was the Senior Research Officer in the Ministry of Education and Skills Development where she worked on the research, monitoring and evaluation activities of the ministry. During her two years at the ministry, she sat on reference committees giving technical expertise in research consultancy. Before joining the ministry headquarters, she completed a BEd (Science), specialising in Mathematics and Education (University of Botswana, 1995) and then taught mathematics and statistics at several secondary schools in Botswana. Throughout her teaching career, she developed projects in research, science and mathematics to help her students understand and apply science and maths skills. These projects were presented in the national secondary school fairs in the country. She earned her MEd in Mathematics and Education in 2002 (also from the University of Botswana). As she worked towards her MEd she learned research concepts and improved her skills in this area.

Dikeme Kgamanyane completed his university education in 1996 at the University of Botswana (BEd, Science). After that he taught mathematics at Kagiso Senior Secondary School in Ramotswa, Botswana, from June 1996 until August 1999. He is currently a programme development coordinator at the Botswana Col-

lege of Distance and Open Learning (BOCODOL), and has been with the college for the past 11 years.

António Domingues Franque became a secondary school teacher in 1978. He started teaching with no specific training and only trained as a secondary school teacher in 1981. After joining the Instituto de Aperfeiçoamento de Professores (IAP) in 1989, he got a scholarship in 1991 to study for a master's in Education and Development at the Institute of Education, University of London. His master's thesis was titled 'Distance Education in Mozambique: Feasibility and Sustainability'. In 2002 he joined the Department of Distance Education in the Ministry of Education where he worked with the task force of the Instituto de Educação Aberta e à Distância. In December 2007 he was appointed to his current position of General Director of the Instituto de Educação Aberta e à Distância. He is also the vice president of the Distance Education Association of Southern Africa.

Lurdes Patrocínia Matavela Nakala became involved in distance education in 1994 at the Instituto de Aperfeiçoamento de Professores (IAP) whose mission was to set up a distance education programme for in-service primary school teachers nationwide. At IAP, she developed course materials for several general and methodology subjects and also instruments for course implementation. From 2003 to 2007 she was a task force member of the National Institute of Distance Education where she is currently the Head of the Directorate of Accreditation and Training Services. She also worked at the Instituto de Educação Aberta e à Distância (IEDA) as an instructional designer. She completed her MEd in Educational Studies at the University of Queensland, Australia, in 2001.

Amadeu Afonso completed his university education at Pedagogical University-Maputo (Teaching Chemistry and Biology) in 1996. In 1995 he began teaching chemistry at several secondary schools in Maputo while he completed his degree. During 2001 and 2002 he worked as a deputy director in a secondary school. In 2003 he was invited to join the Department of Distance Education in the Ministry of Education and Culture. As a staff member in the department, he was actively involved in the conceptualisation and launching of the Programa de Ensino Secundário à Distância (PESD). He is the author of several chemistry modules for PESD and of chemistry books for grade 12 and materials for entering university.

Amadeu is currently employed at the Instituto de Educação Aberta e à Distância (IEDA) and was recently promoted to education specialist by the Ministry of Education.

Rogério Eugénio Balate was promoted to the position of education specialist in the Ministry of Education in 2008. Previously he was head of the Department of Control and Evaluation at the Instituto de Educação Aberta e à Distância (IEDA) for 12 years. He participated in the needs assessment of the in-service teacher training programmes and developed modules for geography and methodology of geography teaching. He also worked as an instructional design reviewer of geography modules for the Programa de Ensino Secundário à Distância (PESD). While at PESD he was engaged in training distance education managers (supervisors, coordinators and tutors) at various levels of implementation of IEDA programmes, countrywide.

Harold Efraim//Guiob obtained his Higher Education Diploma for Secondary Education in 1990 from the University of Namibia. After teaching history and English for three years in Rundu and Grootfontein, Guiob returned to Windhoek to pursue a year-long BEd (Honours) at the University of Namibia which he obtained in 1995. In 1997, he enrolled for an MEd in educational leadership with the University of the Free State in Bloemfontein, South Africa. His dissertation assessed the managerial readiness of secondary school principals in Namibia and argued for the introduction of assessment centres to better prepare principals for managerial responsibilities in schools. Guiob is currently enrolled for an MPhil in Chinese Studies with the University of Wales-Lampeter in the UK and works as a Human Resources manager for NAMCOL.

Jan Nitschke is a deputy director at the Namibian College of Open Learning (NAMCOL), responsible for Programmes and Materials Development. Before he took up this position, he was manager for Research, Development and Quality Assurance at NAMCOL. He holds an M.Soc.Sc. from Umea University in Sweden, a BSc (majoring in Mathematics and Physics) from the University of Western Cape, a post-graduate Diploma in Education from the University of Namibia and a Diploma in Management Studies from Mancosa in South Africa.

Francine Ndeutungu Keendjele entered the University of Fort Hare in South Africa in 1984, and obtained a BA and Higher Education Diploma, majoring in Pedagogics, History and Philosophy. She later obtained a BEd (Honours) and MEd at the University of Namibia. Her thesis was 'The Evaluation of the Quality of the NAMCOL Learning Materials for English Grade 10 (distance education material)'. She is currently Deputy Director: Management and Support Services at NAMCOL.

Professor Dr. Abdul Mannan became founding Executive Director of the University of Papua New Guinea Open College having previously worked in the Bangladesh public service, the United Nations Development Program and several educational institutions including the University of Papua New Guinea. Mannan earned an MA in Economics from the University of Chittagong, an MA (Honours in Educational Administration) and a PhD from the University of New England. Under his leadership, Open College won two Commonwealth of Learning Awards: Excellence in Course Materials (2004) and Institutional Achievements (2008). He is an honorary COL advisor. In Papua New Guinea he is a prominent figure in higher education leadership and in promoting and developing open and distance learning in his roles as chairman of the National Open and Distance Learning Committee and president of the Papua New Guinea Association of Distance Education.

Rhoda Mweetwa is a principal education officer (PEO) in the Ministry of Education in Zambia. Before being promoted to this position, Mweetwa worked in several senior positions in the Ministry. She was a senior inspector of schools (Industrial Arts HQ) in the Inspectorate Department of the Ministry and senior education officer (Distance Learning) in the Directorate of Open and Distance Education. She also has vast experience of teaching in high schools in Zambia and has attended and presented at several workshops on open and distance education. Rhoda holds a BEd in Technical and Vocational Education from the University of Huddersfield, UK. She is currently registered for an MA in Distance Education with the Indira Ghandi National Open University (IGNOU).

Workshop participants by country and institution

First workshop: 8–12 September 2007.

Venue: Kopanong Hotel, Johannesburg (South Africa)

COUNTRY	NAME OF PARTICIPANT	DESIGNATION	INSTITUTION
Canada	Frances Ferreira	Education Specialist, Basic Education and Open Schooling & Team Leader, Education	COL
South Africa	Ephraim Mhlanga	Senior Education Researcher (Workshop facilitator)	SAIDE
Bangladesh	Alinoor Rahman	Dean, Open School	Bangladesh Open University
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OPEN SCHOOLING IS BECOMING INCREASINGLY PREVALENT IN MANY DEVELOPING COUNTRIES. ENROLMENT NUMBERS ARE RISING RAPIDLY, PARTICULARLY AT THE SECONDARY SCHOOL LEVEL. BUT QUALITY ASSURANCE REMAINS LIMITED.

Open schooling must mean access to quality education, otherwise its introduction becomes counterproductive. In our view, the quality of the education is as important as the quantity offered.

This carefully prepared toolkit is one way of providing support as open schools develop quality assurance systems that will be the foundation of a culture of continual improvement in open schooling. We hope it will benefit open schooling by making institutions' quality assurance practices as explicit and systematised as possible, with quality assurance policies clearly communicated amongst institutional stakeholders.

While the toolkit aims at helping open schools to institute sound quality assurance systems that can lead to quality ODL provisioning, it also seeks to alert policy makers to the importance of investing in quality open schooling as more and more learners opt for this alternative form of education.

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