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Programme Evaluation in Distance Education: A Function of Quality Assurance

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ABSTRACT

Programme evaluation is a systematic way of gathering, analyzing and utilizing information to answer basic questions about projects, policies and programmes. Methodologies included cross sectional surveys and review of literature to gather data. Evaluation in open and distance learning is undertaken to guide decision-makers programme leaders, programme coordinators with an overall objective to improve service delivery and client satisfaction. This objectives of this paper is to discuss the concept of programme evaluation as a function of quality assurance citing examples from the Zimbabwe Open University. Quality assurance is described as a process of ensuring that students who enter a programme exit with the requisite standards of competence through employing a combination of learning and infrastructural resources. Programme evaluation, whether it be positivist, interpretive or critical-emancipatory, takes place in specific socio-political contexts. The various evaluation typologies must be understood in the context of the distance and open learning institutions and that they are intended to enhance quality assurance at various levels of programme implementation.

Key words: distance education, formative evaluation, needs assessment.

INTRODUCTION

Distance education (DE) institutions consist of an array of infrastructures and personnel (Lockee, Moore and Burton, 2002). Some of the factors to consider when unlocking this complex system for study purposes include institutional, technological, implementation, and organizational issues. These factors make up the components of a DE system and the malfunctioning of any one of them is a threat to quality assurance and DE learners fail to engage in meaningful and qualitative learning. Thus, a comprehensive evaluation of DE must scrutinize the condition of the individual components so that one has a clear understanding of the processes of learning offered through distance with a view to create positive outcomes in learning, satisfaction and employability of the graduate.

Offering education through distance and open learning at university level creates some of the most compelling tasks for the determination of quality assurance. The distance and open learning university has a complex bureaucratic set up with a threat of duplication of duties in the various Regions where the Regional offices are set up. These duplications have implication on the quality of the learning processes, outputs and outcomes. As opposed to traditional setup of conventional universities, open and distance learning moves closer to the learner, but such education comes at a cost and with myriad of problems. Some of these problems can be contained through properly and adequately designed and timed evaluation programmes of both the learning materials, staff competencies and the student admissions and learning processes. This paper explores some of the linkages between programme evaluation and quality assurance. The various approaches in programme evaluation are discussed emphasizing how these can be applied using examples from the Zimbabwe Open University.

Conceptual framework

Programme Evaluation is viewed in different contexts by academics and practitioners in the field of evaluation. The variation in thinking about evaluation brings to fore the challenges encountered when one tries to define evaluation, programme evaluation and quality assurance. The paper explores some of the popularly advanced definitions as a means to clarify the theoretical confusions that can arise as a result of contextual differences. Some of the common definitions of programme evaluation are stated here;
1. ‘Evaluation is the collection, analysis and interpretation of information about any aspect of a programme of education or training, as part of a recognised process of judging its effectiveness, its efficiency and any other outcomes it may have’ (Thorpe, 1993).

2. ‘Evaluation is the process of collecting and/or using information for the purposes of determining the value and worth-whileness of the subject of the evaluation process’ (Birley and Morel, 1998).

3. ‘Evaluation is the systematic process of collecting, analysing and interpreting information that enables judgements to be made about the value of a programme (of learning) and its effectiveness and/or efficiency in achieving a set of outcomes’ (Dolley, 1994).

4. Programme evaluation is a management tool. It is a time-bound exercise that attempts to assess systematically and objectively, the relevance, performance and success of ongoing and completed programmes and projects. (Pradhan, 2006)

To profile in greater detail the quality of a programme one has to collect data from the institution including enrolment figures, dropout rates, accounting systems, registration and publication of examinations, the number of graduates that are employed, the quality of learning material and many other data related to distance and open learning. Once the data has been collected it should be analysed using a range of qualitative and quantitative techniques. The results have to be interpreted in the context of their implications on the operations of the institution.

The key threads from these definitions are systematic, data collection, analysis, and interpretation. To be able to evaluate a programme the following themes will act as guidelines:

- Programme/course objectives.
- Course content – relevance, adequate body of knowledge, organization and presentation.
- Instructional design – instructional system, distance teaching and learning
- Strategies, methodology, media mix and pedagogical issues.
- Support services – role of a facilitator, use of multi-media, library services,

Figure 1 shows some of the components of a programme evaluation activity described by Pradhan (2006). Distance and open learning programmes are designed for learners. They should be learner centred and should be continually evaluated to improve the quality of the graduate. Programmes must be evaluated to decide if the programmes are actually useful to the learners and whether they are achieving their stated objectives. Programme evaluation is about carefully collecting information on a programme or some aspects of a programme in order to make necessary decisions. The process can include different types of evaluation, such as needs assessment, accreditation, and cost effectiveness, formative and summative evaluations. Summative evaluation usually aims at assessing the effectiveness of a programme on its completion. The intention of conducting summative evaluation may be either reporting or validating a course. In other words it could be termed terminal evaluation and in distance and open learning this can be in the form of tutor evaluation and course evaluation by students with a view to improve the quality of teaching and learning in forth coming semesters.

![Diagram of programme evaluation](Image of diagram)

**Figure 1:** The concept of Programme evaluation in distance and open learning

**Source:** Pradhan, B (2006)
The purpose of formative evaluation is to modify and improve the quality of the programmes while they are at the development stage and the result of the formative evaluation feeds into decision making. Formative evaluation is an ongoing process. It describes the process of collecting information to refine programme development. The thrust of formative evaluation is to identify the strengths and weaknesses of a proposed programme or one under implementation with a view to reduce weaknesses and maximize strengths. In other words, formative evaluation can be used to improve the depth and quality of content covered in a particular course based on information provided by learners and programme implementers that include coordinators, programme leaders and chairpersons. The evaluation should focus on models used for instructional design and course development. While designing a programme, the models used are behavioural, cognitive and constructivist, etc. Formative evaluation helps us to determine if the model currently being used is appropriate for a course/programme. The purpose of formative evaluation is not to measure the effectiveness of a programme, but to identify any changes it may require which would improve the programme.

Evaluation in open and distance learning is undertaken to guide decision-makers programme leaders, programme coordinators with an overall objective to improve service delivery and client satisfaction. Evaluation commonly aims to determine the relevance, efficiency, effectiveness, impact and sustainability of a programme or project. In the case of the Zimbabwe Open University the programme coordinator for example is mandated to evaluate the quality of teaching provided by tutors in a particular semester whilst the student is also afforded the opportunity to give feedback through filling tutor evaluation forms. Some tutors can be suspended or dismissed from the programme if the students’ views about that particular individual are negative. On the other hand the results of such an evaluation of tutors by their students can help the programme coordinator to plan for a staff development workshop.

Programme evaluation thus, helps in decision making, ascertaining the needs of the students and the society in general. Evaluations can also help improve the content and quality of teaching within a programme and thus enhancing implementation of a programme. The use of tests and examination in learning could double barreled as it helps to measure how much a student has grasped of the concepts in a particular course or programme within a semester. On the other hand the results measure the quality of the learning components including infrastructure, student support services, tutors and the learning materials.

There are many reasons for programme evaluation including the ones listed below;

- determine the worthiness of a programme
- the degree to which the objectives are being achieved
- assessing effectiveness of a programme or course within a programme
- efficiency in achieving a set of outcomes
- programme design-processes and outcomes
- judging the effectiveness of courses or materials;
- input analysis
- mapping the perceptions of different participants – learners, tutors, trainers, managers, service providers and others
- exploring the comparative effectiveness of different ways of providing the same service

One area of strength in open and distance learning is the degree of cross-breeding of ideas through using expertise from various universities, colleges, business and other sectors where members can contribute on a part time basis to the learning process. They are required to write the course materials as provided, and are allowed to enhance course content based on their experience and expertise. These are writers from outside the traditional education or training community, but have been brought into the process to assist in designing the curriculum or providing suggestions for programme and course content. Their involvement at many levels is important. In some instances it might be a political necessity, specifically to ensure future contributions to the institution. In many instances accrediting agencies establish criteria that must be satisfied in order for programmes to be universally recognized. In Zimbabwe all universities are registered with the council for higher education. In industry these days most companies are affiliated to the international and local standards organisation as a means for quality assurance.

The preceding section has overused the word programme without necessarily explaining its meaning in line with open and distance education. A programme in the context of open and distance education and this paper refers to either a certificate, diploma, masters and doctorate degrees that consists of a number of taught courses with minimum credit points or in the case of a research degree a research in a defined area leading to certification. At the end of a learning programme students have to graduate indicating a successful completion of the course and a product that is to give services to social and economic development (Table1). The final product is evidence of quality assurance.

Table 1: Bachelors Degree Programmes offered in the Faculty of Science by the Zimbabwe Open University

<table>
<thead>
<tr>
<th>Name of programme</th>
<th>Minimum Duration years</th>
<th>Objective</th>
</tr>
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<tbody>
<tr>
<td>Agriculture management</td>
<td>4</td>
<td>To prepare diploma and certificate holders with knowledge and skills which enable them to effectively operate in agriculture.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To develop research solutions to national and international problems.</td>
</tr>
<tr>
<td>Nursing Science</td>
<td>4</td>
<td>To upgrade nurse knowledge, skills and competencies.</td>
</tr>
<tr>
<td>Physical Education and</td>
<td>4</td>
<td>To produce sports persons and administrators to enhance performance in physical education and sport organisations and other market industries.</td>
</tr>
<tr>
<td>sport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics and statistics</td>
<td>4</td>
<td>To apply mathematics and statistics in industry, commerce, agriculture and other fields of endeavour in everyday life.</td>
</tr>
<tr>
<td>Geography and Environmental Studies</td>
<td>4</td>
<td>To empower those who work or would want to work in environment-related fields.</td>
</tr>
</tbody>
</table>

Source: Zimbabwe Open University General Regulations(2007)

All the programmes are taught through open and distance learning where the module is the principal tutor and students are accorded six hours contact tutorials per module, written assignment weighted 20% and a three hour examination (80%). Programme evaluation for these degree programmes can focus on the adequacy of the courses taught and their weighting or understand the extent to which the programmes achieving their objectives at national and international level.

Woodley and Kirkwood (1986) proposed six categories of evaluation information for those engaged in the process of evaluating distance education programmes;

- **Measures of activity** involves the counts of events in terms of the number of students served and those not served over a defined course of period like a semester for example.
- **Measures of efficiency** involves focusing on the quality of teaching, pass rates, employability of graduates, acceptability of learning materials, cost of learning, drop out rates, number of inactive students within a given semester, number of students breaching the minimum learning period for an undergraduate course for example 4 years within the ZOU system.
- **Measures of outcomes;** adequate learning, use of material by other institutions, peer evaluation, tutor evaluation, achievement of programme aims, reach students through establishing learning centres or through electronic and print media.
- **Measures of policy:** market reach, prospective students, cost of tuition, appropriateness or relevance of course to industry.
- **Measures of organisation:** internal organisation and procedures means to achieve quality assurance at national and international level.

The focus of the paper is on programme evaluation as a function of quality assurance. In order to understand the issue of quality assurance this part of the discussion explores its meaning in the context of programme evaluation. Some of the definitions that are peddled in literature are briefly discussed. However, when one makes reference to the issue of quality assurance you have to bear in mind some conflicting concepts that at times are used interchangeably yet they mean different things in management of open and distance learning activities. These terms are quality assurance and quality control. Mugridge (1999) provides a clear explanation of the differences between the two concepts;

‘Quality assurance can simply be defined as measures taken to avoid faults, as the set of activities undertaken to ensure that standards are, first, specified clearly and second, reached consistently for all activities in which an institution engages. The second expression, quality control, is defined as measures taken to correct faults, as a retrospective activity, eliminating or improving faulty products or services.” Both of these overlapping functions, along with the monitoring of the procedures themselves, together make up quality management.’
The above definition compares very well with this one from Robinson (1994) which states that,

'Quality assurance is ‘a set of activities that an organisation undertakes to ensure that standards are specified and reached consistently for a product or service.’

Quality assurance is about anticipating problems that might occur in reaching specified standards in order to avoid them. Quality control is about checking after work has been completed to see if it meets specified standards and products that do not meet these standards are discarded. This applies more appropriately to the manufacturing sector because there is no way you could discard a graduate of an approved programme of learning but you can only improve the content of the programme for the betterment of future students. There are two main limitations to quality control as compared to quality assurance. The first is that quality control does not focus on error avoidance as a strategy, so it can result in wasted effort and materials and re-work costs. The second is that the responsibility for assuring quality becomes that of a few inspectors rather than all those who are doing the work, for example a team of materials writers. Because of this, quality control is often regarded as an inferior alternative to quality assurance. Despite the differences quality control is a necessary component of quality assurance particularly with reference to the production of learning materials. Figure 2 shows some of the organisation management systems that support quality.

![Quality Assurance Diagram](image)

**Figure 2:** Core components of institutional management systems that support quality

Planning informs implementation. The implementation of the programme needs to be evaluated against clearly defined outcomes, to see whether it is successful. This evaluation then provides feedback to be used for review, which informs decisions about how the programme or institution can be improved. The diagram above therefore emphasises the importance of effective evaluation research and the crucial role it plays in a quality assurance process.

To summarise Rathmore and Schumer (1998) averred the following with regard to evaluation and its centrality in quality assurance;

“Evaluation (is not) an end in itself...evaluation should rather provide information which can be used to improve or maintain the quality of products and processes”

Quality assurance is taken to mean more than Freman’s conception of an “essentially preventive process against error” Freeman, 1993: 18; cited in Kurasha and Gwarinda 2011. Rather it is a process of ensuring that students who enter a programme exit with the requisite standards of competence or set of outcomes through employing a combination of policies, structures, resources and procedures which are used to make educational activities meet specified performance levels and quality commitments.

During needs assessment, the researchers need to understand the nature of the problem to be addressed. In order to guard against external and unforeseen forces, one need to know, for example, who is affected? In distance education, it could be the learners that are affected. The researcher then needs to understand how wide-spread the problem is, for example failure to access computers for learners on an online programme might be affecting half of the learners. Understanding the nature of the problem during this phase is critical as the systematic compilation of information will contribute towards answering some of the questions.
Paradigms in Programme Evaluation and quality assurance

The word paradigm means generally an agreed way of doing research business by a community of scientists or researchers in the same field. Paradigms change over time due particularly to discordance within the scientific community and the emergence of problems whose solutions do not fit into the framework of solutions provided over time. Put simply the fashionable way of doing things can be referred here as a paradigm but it should be recognised that it being fashionable does not means it is the best way to conduct evaluation research business. It however, sets the spring board for the purpose of progress and control.

Potter (2006) identifies and describes three broad paradigms within programme evaluation, the positivist approach being the first one. He observes that with the positivist approach, evaluation can only occur where there are objective observable and measurable aspects of a programme. The positivist approach has dimensions such as needs assessment, assessment of programme theory, assessment of programme process, impact assessment as well as efficiency assessment. Evaluators need to pay attention to all the aspects in order to carry out proper evaluation. The positivist believes in facts established through accurate measurements and profiling contents about the programme. The sources for a needs assessment for example are the stakeholders particularly the prospective students and employers. To get to the bottom of the issue when one is designing a programme it is imperative that a needs assessment questionnaire is designed and given to these stakeholders with the objective to collect their views on the possible impact and relevance of the programme to be introduced. There is a general belief that once the prospective clients to the programme give input into the programme design it will be successful in its implementation and marketability. However, we should not be blunt about this since socio-economic conditions change much faster than university programmes. The positivist approach however, has reason in that whenever circumstances change we have to establish the facts and inputs these into our programme with an a view to remain relevant and responsive to societal dynamics.

The second paradigm identified by Potter (2006) is that of interpretive approaches, where it is argued that an evaluator should develop an understanding of perspectives, experiences and expectations of all stakeholders. This would lead to a better understanding of the needs of stakeholders and in making judgments about the merit of a programme. The evaluator’s contact with the programme is often over an extended period of time and, although there is no standardized method, observation, interviews and focus groups are commonly used. The success of any evaluation research with regard to open and distance learning rests on the accurate interpretation of the data gathered and the resultant policy influence. This is crucial before one is able to make judgments about the merit or value of a programme.

The third paradigm identified by Potter (2006) is the critical emancipatory approaches to programme evaluation. These are largely based on action research for the purposes of social transformation and it includes some degree of social activism that could be useful in developing countries. It should however, be understood that evaluation does not exist in a vacuum and as such, is influenced by the socio-political factors that can bring out the external and unforeseen forces. Evaluation can be used in favour or against particular ideological, social and political agenda (Weiss, 1999). This is especially true where resources are limited and there is competition between organizations for programmes to be prioritized over others, (Louw, 1999). The massive expansion of higher education in Zimbabwe is based on the popular demand approach that stared at lower levels of education soon after independence in 1980. The ideological position was then socialist based on massive expansion and access to education against a host of challenges constraining rapid growth in educational enrolments. Evaluation under such circumstances should then be focused on why some programmes have low numbers as compared to others. The results obtained from evaluation studies that have the overall mission of increasing enrolments have to fulfill the ideological demands of the state. The Zimbabwe Open University despite the challenges it faces accurately fits into the popular demand approach as it increases access to education at higher level for those who cannot afford to enroll in conventional learning institutions. The action research agenda proposed under this paradigm is critical in programme improvement, management and in particular quality assurance.

Despite the paradigm which is used in any programme evaluation, whether it be positivist, interpretive or critical-emancipatory, it is essential to acknowledge that evaluation takes place in specific socio-political contexts. Evaluation does not exist in a vacuum and all evaluations, whether they are aware of it or not, are influenced by socio-political factors. The university derives its resources for operations from central government thus; operations are constrained by the limited funding opportunities. The problems of quality assurance with reference to the Zimbabwe Open University should be studied in the broader context of deteriorating economic and political contexts.

The ideological and political demands within society at national and international levels have afforded the scholars in evaluation research with opportunities of coming up with classifications and typologies of evaluation. This section discusses some of the typologies of evaluation advanced by MacDonald (1977) and Woodley (1991).

MacDonald (1977) outlined three forms of evaluation that reflected the impact of societal power relations on evaluation work. These are; ‘bureaucratic’, ‘autocratic’ and ‘democratic’. Under bureaucratic evaluation researchers offer unconditional service to the funding agency. They accept the values of those who hold office and offer information that will help the policy-makers to achieve their policy
justification of the existence of bureaucratic formation. Researchers in my organization offer information that such research as a means to quality assurance. Quality assurance within an organization; thus, is part of the operation of most institutions as the decision makers rely on the information provided by those tasked to conduct such research as a means to quality assurance. Researchers in my organization offer information that assists policy makers to achieve their objectives. The institution protects the information that is generated by research.

To understand the word autocrat in administration circles may simplify the use of this word in evaluation. Usually an autocrat executes administrative duties based on clearly set out instructions that subordinates must follow religiously to achieve the goals of an organization. It is usually a matter of policy that implementers can hardly alter. That is a scientific type of management where subordinates know little and may have to be coerced to work for the organization. Thus, autocratic type evaluation suggested here is carried out on the conditions of funding agencies. This goes a long way in justifying that programme evaluation is conditioned by societal goals and political philosophy. The accounting system for distance and open learning institutions can be subjected to internal and external auditing systems as a means to validate the operation of the institutions. The results of such an evaluation inform the authorities on adjustments to make to the accounting system so that quality assurance is guaranteed. Researchers act as expert advisers, deriving the values from their perceptions of the constitutional and moral obligations of the bureaucracy. Examples that quickly come to our minds are those of the Higher education Council with regards to Zimbabwe where they play the role of external evaluators to higher education delivery system. MacDonald’s Autocratic Evaluation describes how researchers represent the interest of groups rather than just the funding agency or the academic community.

The democratic evaluation assumes that programme evaluators represent the interests of all groups affected by the educational programme, rather than the authorities. The aim is ‘an informed citizenry’ and the evaluators act as information brokers between the different groups. Their techniques of data-gathering and presentation must be accessible to non-specialist audiences. Informants are given control over the researchers’ use of the information. The main activity is to collect definitions of, and reactions to, the educational programme. The democratic evaluation system struggles to involve both employees of the institution and those external to the institution as a means to justify that the programmes offered are stakeholder driven and are to be perceived to be of high quality. This kind of assumption subdues quality assurance.

Woodley’s typology (1991) also described three types of evaluation. These are; the market evaluation, liberal evaluation and radical evaluation.

Market evaluation is similar to market research and students are viewed as customers. Research, thus, is devoted to maximizing student numbers and their throughput. Market evaluation is one of the pillars of quality management within the Zimbabwe Open University as information is gathered periodically to measure the response of the market to programmes offered by the institution. This type of evaluation is mainly done at faculty, department, student support services, regional, and national level through the marketing department. The success of a distance and open learning institution thus hinges on the dynamics on the market as controlled by broader social movements.

In liberal evaluation the researcher is the student’s friend. Information is gathered on why people drop out, what they think is wrong with the course, what extra support they need, etc, so that the system can be made better for them. The research is likely to be shared with organisations such as student unions. The liberal evaluation systems have similarity to the democratic evaluation system in that effort is made to give the client opportunity to express oneself in a more friendly manner. This variation of evaluation is used by The Zimbabwe Open University and it strengthens the learner support services. Students are often asked to evaluate the tutor at the end of each course. Information gathered is used to improve services or even hire tutors that are more acceptable to the students. ‘Liberal evaluation’ has been construed to be almost synonymous with course feedback.

Radical evaluation takes several forms but essentially it involves the evaluator taking a critical stance concerning what sorts of people become or do not become students, what they are taught, which students make better and worse progress, and the effects on their lives. In the faculty of science within the Zimbabwe Open University, the Department of Geography and Environmental Studies students are admitted into the programme basing on ‘O’ level qualification that includes Geography, English and Mathematics. Most students who do not possess these basic qualifications are turned down. This is because the degree is a bachelor of science and it is a pre-requisite for prospective students to have these. Any adjustments to these basic requirements can be viewed as machinations to compromise quality. In recent years basing on the specifications of the Council for higher education it has become a yardstick to make sure that every student doing bachelors, degree does a minimum of four courses per semester. Such a criteria has implication on programme review and development of learning materials to support the new course included in the programmes.
CONCLUSION

The paper has discussed the centrality of programme evaluation as a function of quality assurance. Evaluation guides decision makers and provides the platform for determining the relevancy, effectiveness and the sustainability of a programme. Some programmes with limited feedback from the stakeholders can actually be stopped before their full implementation due to rejection by the market. Programme evaluation focuses on the measurement of institutional activities, efficiency, outcomes, policy impact and the internal arrangements of the organisation as a means to guarantee quality assurance. Despite the paradigm which is used in any programme evaluation, whether it be positivist, interpretive or critical-emancipatory, it is essential to acknowledge that evaluation takes place in specific socio-political contexts. Evaluation does not exist in a vacuum and all evaluations, whether they are aware of it or not, are influenced by socio-political factors. The ideological and political setting in which we find a distance and open learning institutions defines the parameters of quality assurance.

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