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**Quality Assurance in Open and
Distance Learning: Reflections on
Quality Assurance in “Environmental
Education**

by

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Abstract

Defining quality for education has always remained problematic and challenging. The challenge of defining quality in educational setting has raised several questions, such as; what do we mean by 'quality 'in education? Do we need a definition of quality? What are the means of measuring quality? What could be the program to improve quality?

Quality is mostly defined in terms of Learners learning and outcomes of the course. The Aga Khan University Institute for Educational Development (AKU-IED) began its operations in 1993, with a specific focus on improving the quality of teaching and teacher education, leading to school improvement in Pakistan and the wider region. This case study of AKU-IED is based on faculty reflection of teaching Open learning master's degree elective course of Environmental Education. This case study will endeavor to address these conceptual questions regarding quality through experience sharing. Open Learning (OL) at AKU-IED is committed to the development of flexible learning resources of high academic quality for Learners learning. It was envisaged by the institution that the "developed materials for distance learning program should be attractive, of high quality and above all should be educationally sound in terms of our learning contexts". This statement sets the agenda for quality assurance for OL program at AKU-IED.

The paper will draw on Purser Model and project cycle management approach to define quality assurance and its mechanism of assurance in OL course. The learning from this experience is that the OL quality assurance can result in independent learning of learners. The areas (attributes) to consider for quality of OL program are , institutional quality assurance mechanism (process and procedures) , provision of contextually relevant learner support, facilitation by faculty, mode of delivery, quality of learning material, opportunities for interaction between learners and face to face support by faculty . Furthermore, there is need to develop indicators for each quality attributes in order to define the quality. This paper will also attempt to define some of the quality indicators in order to contribute in the scholarly discussion in quality of OL education in Pakistan and in developing countries.

1. Introduction

Distance education and training are considered a discrete sector of educational provision, with its own rules and characteristics, which marks it out from the other sector of provision (Keegan 2000). The provision of education through open and distance education has become more challenging in Pakistan and other developing world with initiation of debate of quality and quality assurance in education. The debate focus is on how quality can be assured in the distance learning program? This debate in quality education is mostly related to two paradigms; first what we mean by quality of education or quality education? Secondly; how quality can be improved or achieved focusing on the models of quality improvement in education?

In Open and Distance Learning, especially in the higher education context, the competing paradigms of internal and external stakeholders have focused the attention of scholarly debate on the provision of quality education through distance education. The focus of the debate is on the quality delivery characteristics which includes clear educational goals, institutional commitment to support learners, collaboration process of discovery and improving the teaching and learning environment (Kennedy and Duffy 2004; Benson 2003) Another focus of distance education quality is creating of competencies for delivery of content with quality (Williams 2003)

Aga Khan University Institute for Educational Development (AKU-IED) was established in 1993 in the context of *“a continued and deepening decline in the quality, effectiveness, relevance and outreach of educational system in Pakistan and else where in the developing countries”*. AKU-IED in order to improve access to education for professional development and to achieve the flexibility and openness needed for its program introduces open distance education methods in its programmatic area. Distance education has considerable potential as a teaching and learning methodology for AKU-IED. Open Learning (OL) at AKU-IED is committed to the development of flexible learning resources of high academic quality for Learners learning. It was envisaged by the institution that the *“development of materials for distance learning program should be attractive, of high quality and above all should be educationally sound in terms of our learning contexts”*(AKU-IED 1999, 2003).

The paper will draw on Pursers Project Cycle Management (PMA) (Touwen 2001). approach to define quality assurance and its mechanism of assurance in OL course at AKU-IED. The learning from this experience is that the OL quality assurance can result in independent learning of learners. The areas (attributes) to consider for quality of OL program are , institutional quality assurance mechanism (process and procedures) , provision of contextually relevant learner

support, facilitation by faculty, mode of delivery, quality of learning material, opportunities for interaction between learners and face to face support by faculty . The paper is divided into three parts. First, paper discusses the challenges of defining quality and compare and contrast various definition of quality in education. In second part it discusses the framework of quality assurances at macro and micro level in a University. Finally, in third part, I have reflected on various processes of quality assurance in OL course in order to develop a framework for Programme and its quality indicators. This paper will also attempt to define some of the quality indicators in order to contribute in the scholarly discussion in quality of OL education in Pakistan and in developing countries.

2. Background

World Bank Report on *Higher Education: The Lessons of Experience* (1994), focused its attention on the challenges and the constraints facing higher education institutions around the world and recognized these as a symptom of a crisis. The report found that developing countries were particularly hard hit by the crisis in higher education. In fact, the fiscal constraints faced by many countries, coupled with increasing demand, has led to overcrowding, deteriorating infrastructure, lack of resources for non-salary expenditures, such as textbooks and laboratory equipment, and a decline in the quality of teaching and research activities.

World Bank defines distance education as teaching and learning in which learning normally occurs in a different place from teaching (Keegan 2000). However, distance education is not seen as infrastructural but distance education is seen and distinguish based on the categories of pedagogies. Peters (1998) is his book "learning and Teaching in Distance Education" has made a very critical distinction between the open and distance learning and traditional universities. This distinction between OL and traditional university is differentiate through the emphasized of teaching pedagogy on engagement of learner with the "text" rather than the "oral discourse", where learning experiencing the "reading" learning rather than the "listening" learning. Moreover, pedagogical structures are different for open and distance learning. He further emphasized that the socio-geographical status of the distance learner is quite different, in decisive ways from the Learners in traditional universities. Finally, he argued for the specific institutional and organizational preconditions which are required for the development, control, and evaluation of learning and teaching.

In the back drop of the open and distance learning varying pedagogical approaches and specific needs of the program, the importance of quality assurance has gain significant importance. The need for quality assurance in distance education is more important then ever. The is because of the potential of open and distance learning program to address the issue of equity, outreach

and economies of scale as camper to the conventional teaching and learning model (Benson 2003).

AKU-IED was established realizing the educational need of developing countries and Pakistan. The poor level of educational performance in Pakistan requires intervention to address the issues of quality education through i) teacher educators in-service training, ii) development of a network of teachers development linked with a center of excellence of international quality.

AKU-IED's mission is "*to become a vanguard in educational reforms and improvement especially in 'Third World' countries aimed at increasing the efficiency and effectiveness of school and other institutional institutions*" (AKU IED 2000). In 2001 it was proposed by then Director Professor Dr. Gordon Macleod to work on Open Learning (OL) initiative. These initiatives were to be undertaken on line with the recommendations of the Phase 2 Proposal of AKU-IED. Initially it was decided that OL courses will be developed in the emerging area of Environmental Education, Gender Studies, a component of English and Research Methods. Environmental Education as an OL course was developed and offered as Certificate in Education and elective course at Masters in Education Programme.

The need for Environmental Education and merging that need in sustainable development is supported by Agenda 21. The Agenda 21 remains the basis of internationally agreed courses of action towards sustainable development. Chapter 36 of Agenda 21 on Promoting Education, Public Awareness and Training focuses on the role of education in environmental decision making. In it, world leaders asserted that:

'Education is critical for promoting sustainable development and improving the capacity of people to address environment and development issues. ... It is also critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making.'

Offering Environmental Education through OL mode provided opportunity to outreach the message of promotion of sustainable development to various stakeholders. The quality of message will be the key to the success of sustainable development initiatives and conservative activities in school and its adjoining communities (Fien et al. 1997). Therefor, the emphasis on the quality of education through environmental education cannot be understated.

3. Defining Quality:

According to Chambers Dictionary *Quality* is a noun and defined as i) the degree or extent of excellence of something ii) a generic excellence; high standard. Quality as an adjective is regarded as the being of or exhibiting a high quality or standard (Chambers 1999). Similarly, Oxford Dictionary (1999) defined quality as

a noun, i) the standard of something as measured against other thing of a similar kind. A generic excellence ii) a distinctive attribute or characteristic. These definitions of quality has emphasized on the excellence and standards.

In the educational discourse the quality is used as an adjective of education. In my opinion the assumption that education is always quality education or quality education is 'the education with quality imbedded in it' is problematic. The shadowing of quality with education has undermined the independent of quality as an excellence attribute. In the educational discourse when we linked quality with education the emphases of the excellence takes a new shape. For example UNESCO commitment to quality is to take an interdisciplinary approach with specific context bound priorities and strategies to achieve quality. UNESCO also called for improvement in the quality of education through the diversification of content and methods, and promotion of universally y shared values. UNESCO defines the quality with a human rights approach which satisfies basic as life long needs .The separate definition of education and quality has reinforced the notion of quality, its important and geared support for institutional mechanism. I agree that the quality purpose is to achieve what education is meant to achieve, however, a greater emphasizes and mechanism for quality assurance is needed in education.

We all agree on the need, usefulness and benefits of education, in what ever mode it is provided. We all also agree that the education provided should be quality education. The question we now have to tackle is does quality notion in higher education and especially in the distance education mode is different. In the context of higher education does definition of quality differ? The agreement on one definition of quality is a major challenge in achieving the quality; develop the processes and indicators of quality in higher education and distance learning.

One problem with defining the quality is as we have seen in the previous section is the changing nature of the quality term. Quality can also be defined in terms of learner's assessment and the acquiring of knowledge. However this notion of quality is more focus with the evaluation approach. Quality can also be defined within the framework of learning theory context. Constructivists define quality in education in terms of how it increased the relative knowledge and experience of individuals. At the same time the behaviorist may like to gauge learning by goals and objectives. The Learners at the other hand will gauge the quality by the grades they receive.

The quality statement of a university regarding its programs can be considered as a quality definition for those specific institutions. AKU-IED quality definition for the open learning course material program summaries the desired quality goal. Its states that "*developed materials for distance learning program should be attractive, of high quality and above all should be educationally sound in terms of our learning contexts*".

During the course of looking at the quality assurance mechanism, definition and principle statements of various universities, I have come to identify various elements of project cycle, such as design, implementation, completion and monitoring and evaluations. Reflecting on the project cycle management approach as a tool to look at the processes, I intend to reflect on the quality assurance process in the open learning program at AKU-IED

4. Framework for Quality Assurance in Distance Education

Quality assurance in the 21st century will be more challenging as universities move to broaden the range of their knowledge missions. The diversification and pluralism is the strength as well as challenge for international universities. In the recent past quality control in teaching and research has been exercised through essentially the same type of peer review system. Quality has been a matter for academics and academics alone. It has been up to them to determine when quality in both teaching and research has been achieved. But now this has changed considerably and move is towards quality assurance processes as an institutional mechanism for quality assurance.

In order to understand the framework for quality assurance for OL (environmental education) at the Aga Khan University we need to understand about the course and how it is delivered. The Environmental Education course has its theoretical foundation on the notion of teacher development where, its aims are to develop the knowledge, skills and attitudes necessary for the integration of environmental education into their teaching. One of the interesting dimensions of this course is articulation of environmental causes that environmental issues are due to human interaction. The learning outcome and objectives of environmental education course have guided this human and environment interaction. Therefore, the understanding of human interaction, which is narrated through following quotation of Milton, is the core of this course.

Human interaction with the natural environment is widely perceived both as the source of environmental problems and as the key to their solutions

(Milton, 1996, p. 5)

Thematic Mosaic

The content of the environmental education course is based on six major themes. Each theme in the course is delivered through various pedagogical approaches and strategies. The course starts with the Theme 1: Definition and scope of environmental education. Theme 1 defines the concept of environment and environmental education. In this theme learners also learn about the role of environmental education for the sustainable future and society. At the end of this theme they are able to understand and analysis the curriculum framework for environmental education. This theme is very much linked with their one of the assignment in which student's analysis the text book for environmental education knowledge, skills, attitude and action.

In theme 2, the Learners are given the basic content knowledge about the natural and social environment (eco-system, biochemical cycles). This theme also explores complicated relationship of human and social environment. The learners are exposed to system approach in order to develop understanding of the social impact on the environment.

Moving further and building on the knowledge gained in the theme 1 and 2 Learners were exposed to the environmental issues, global and local. They are also encouraged to learn, reflect and discuss the concept of development and how this is contributing in the environmental degradation. Connecting the issues of development and environmental degradation theme 4 explores the notion of sustainable development orchestrating the view that, development is possible. For teacher and teacher educator how of to go about sustainable development in their own context and teaching and learning is discussed in the theme 5 which explore the environmental education class room approaches and activities. The final theme 6 is about social action in the school for the conservation of environment. This final theme also provided the necessary knowledge and skills for the learners to carry out a conservation project at school thus ending the course with a conservation action.

Pedagogy

The course was offered in distance education (DE) mode. Learners were provided with learning materials comprising of a Course Outline, Study Guide (including learning activities), Essential Readings, Supplementary Reading and Audio–Visual Materials. These materials were supported by face to face sessions, an asynchronous web-based discussion forum having four key themes. The interaction between the course tutors and learners and among learners was encouraged through the discussion forum and eight face-to-face meetings, wherever this was possible.

The Open Learning website, <http://www.iedolu.net> was an integral part of the course. This site serves as a mini-portal into the OL initiative. The purpose of this site is to provide one place where Learners can find extensive information on OL courses and can see how taking an OL course could work for them. The site provides all the information Learners need regarding registration, selection criteria, student support, course outlines, etc. Any announcements, news, or current events in the OL area are posted on the website. .

Project Cycle Management (PCM) and Quality of Open Learning Program

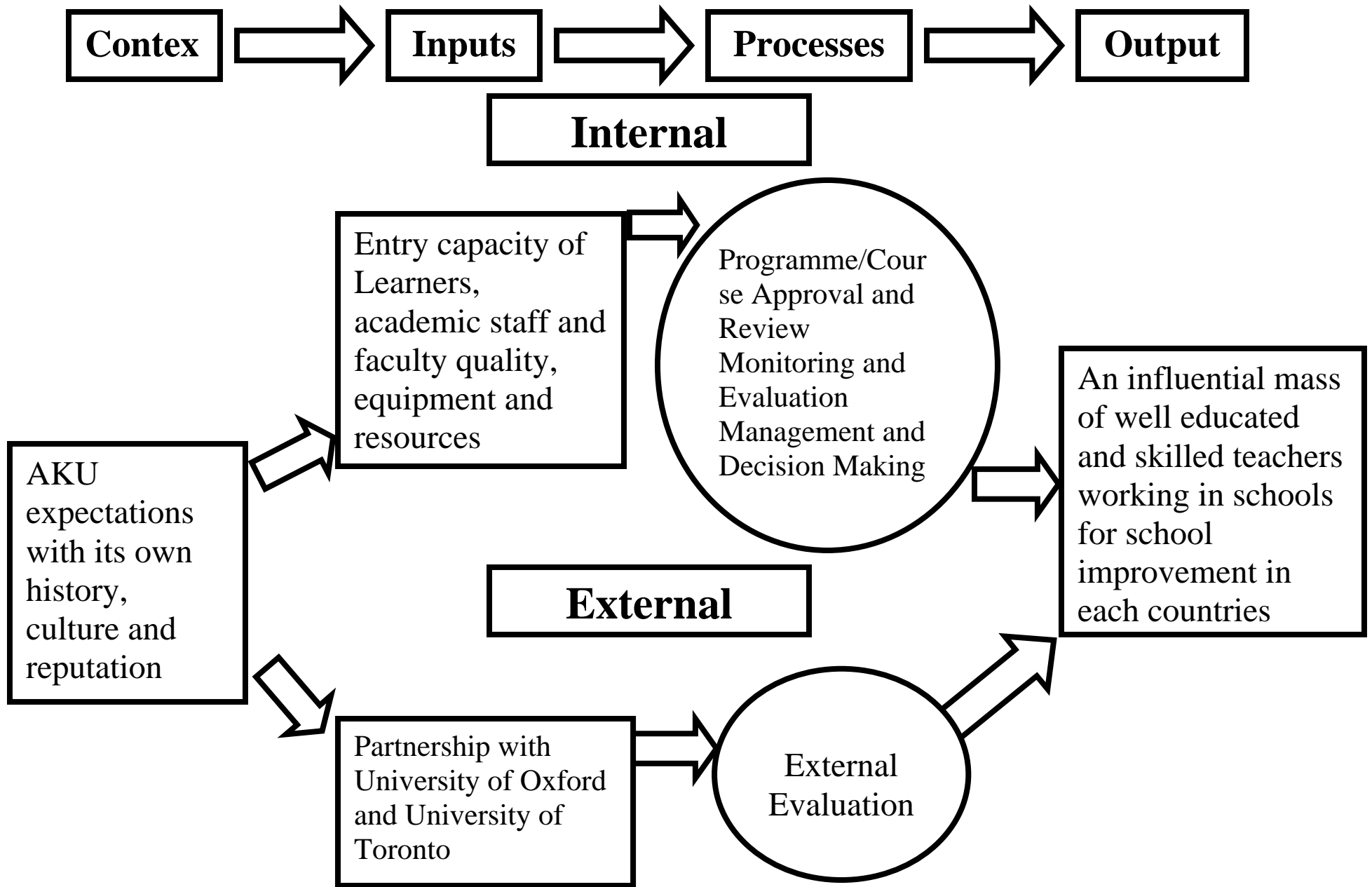
A project is a managed changed process which takes place in a specific context, and which is designed to have an impact on that context (Shepherd 1998). A project has agreed Purpose, Outcomes and Outputs. A common model of Project Life –cycle suggests that there are three main components of project cycle that is

design, implementation and completion –with monitoring and evaluation running through out the project cycle. I have used the project cycle process to reflect on the quality assurance processes at AKU-IED OL Programme.

Quality Assurance at AKU-IED uses self – regulated and externally regulated systems. Its uses Purser's (2001) context, input, process, output model of its activities at the institutional level. I have termed this model as a macro level quality assurance model for teaching and research (two main activities of AK-IED). According to Purser a supportive context and high quality input and processes should result in high quality product (AKU-IED Taskforce 3 Report). The Purser's model adapted to the IED context is given below in Figure 1. As we can see that the Purser model can be very effectively adopted to the institutional needs of a university for quality assurances. The strength of this model is that it provided a framework to do internal as well external monitoring and evaluation for quality assurance. University/Educational Institutions can also use this input model to develop the Quality Assurance Framework. In my view that Purser's model can be very effectively used for a macro level / institutional level.

Developing further on the Purser model, I am proposing PCM approach at programmatic level or micro level for quality assurance. The reason I am proposing is that the compatibility of Purser model with PCM. The process of OL program quality assurance is given in Figure 2 .

Figure 1: Purser's Model for Teaching and Learning Quality assurance adopted for AKU-IED



Pak **Figure 2 : Project Management Approach for Quality Assurance Processes in OL Program**

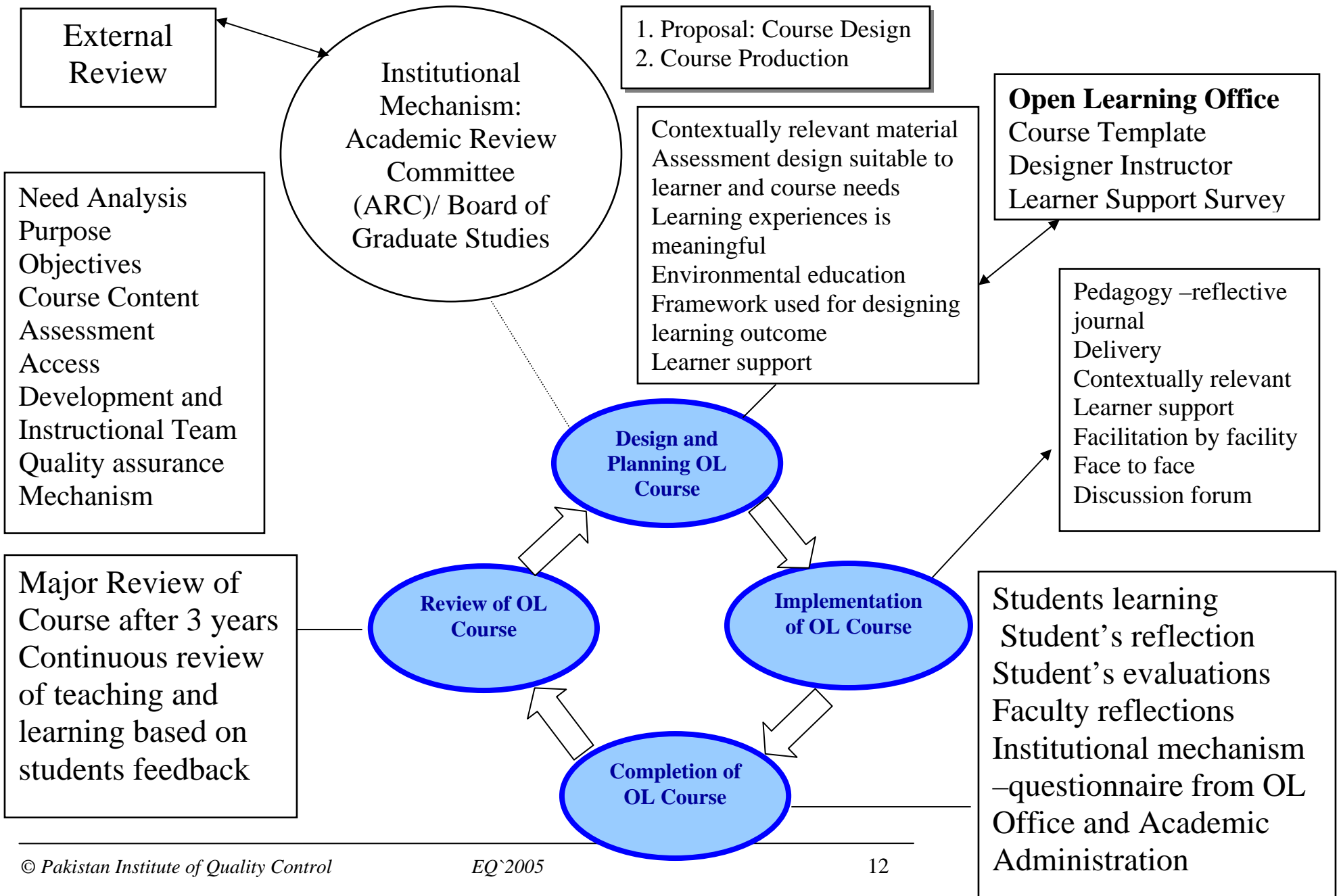
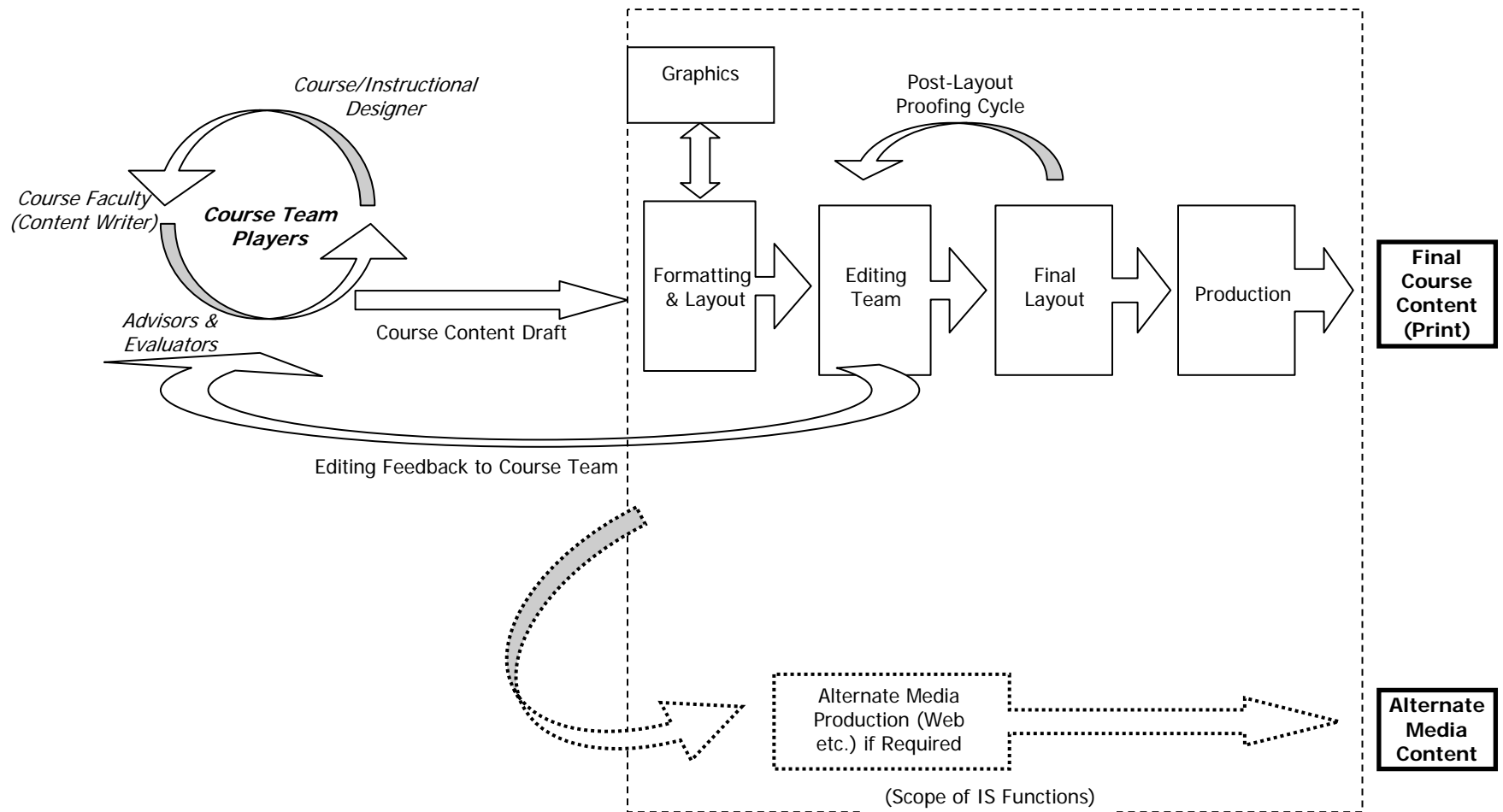


Figure 3: Course Material Production Cycle at IED

Course Material Production Cycle



5. Reflection on the Quality Assurance Process

Design and Planning of ODL Course

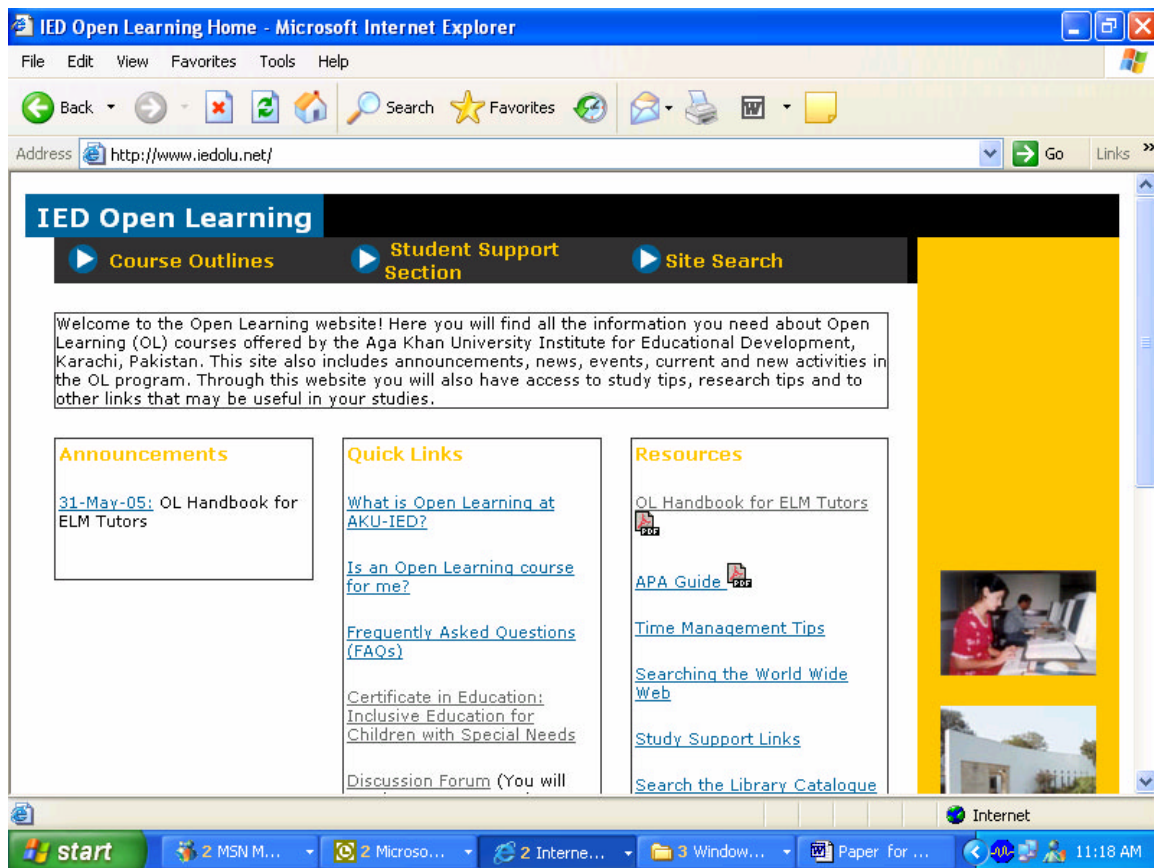
This is first and the most important stage of planning and design of the OL course. In designing a course the accessibility is also important in terms of language, simplicity of learning materials and clarity of curriculum in terms of intended learning outcomes. According to Lewis (1998: 25) the key factor in the design stage are:

- The attractiveness of the curriculum and its delivery;
- The clarity of the curriculum, especially in terms of its intended outcomes and the methods by which these will be assessed; and
- The quality of support for the Learners.

The Environmental Education Course was designed keeping in view the process of course development at OL. The course development process is shown in the Figure 3. At each step the quality assurance is in built. Some of the quality assurance indicators and attributes are given in Table 1. The team efforts between the course design faculty and OL office Instructional design is crucial for the successes of the quality of OL program. The key to the OL learning program design is the institutional mechanism of quality assurance and support services available to the learners in the program. In this regard the role of OL office, Academic Review Committee, Board of Graduate Studies and Academic Council of the University is crucial. Learners are supported through the OL web portal. The OL web portal of AKU IED is shown in Figure 4.

Table 1 Quality Assurance Indicators at Design and Planning Stage

Quality Attributes	Quality Indicators
Contextually relevant material	Local case studies are used relevant to the learner's context. Environmental issues of developing countries are included
Assessment Design	Conform to the assessment policy of AKU Assessment are based on learning objectives and relevant to learners context
Meaning full Learning experiences gained in the course	Student entry on web page or reflective journal about the learning experience and evidence of critical incident
Environmental Education framework	Use of Gardella's Environmental Education Curriculum Framework for Design of the course addressing Knowledge, Skills , Attitude towards environmental conservation and social action for conservation
Learner support	Interaction process in place between through OL office Tutor and Learners Interaction Response to Email within 5 days Feedback by tutor within one week
Interaction at Discussion Forum	Learner content, learner instructor and learner interaction in Discussion Forum once a fortnight by 80% of the participants
Design of Discussion Forum	Encourage and facilitate learners autonomy Consistently, quickly and helpfully respond by tutor



Implementation Stage

The implementation stage is the most challenging in an OL course. The faculty responsible has to deliver the content, provide support to learners and maintain the quality of the OL program. As the Learners are from very diverse background like coming from East Africa, Central Asia, Middle East and South East Asia the course delivery and support becomes more crucial. The quality aspect of not only engaging the learner with the text but also making sure that the quality is not compromised at any stage is essential for OL quality. The most important aspect during the teaching of the course is pedagogy for the face to face session and delivery or engagement of learners with the text and resources of environmental education. One of the ways is to keep a reflective journal and reflect on the critical incidences during the process of implementation. Reflection is found to be an effective quality assurance mechanism for self learning and program implementations. The other element which is challenging for the quality of OL program is learner's interaction with tutor, text and other colleagues. Through discussion forum design, monitoring, engagement and through continuous feedback one can engage the progress of learners, their engagement with ideas, fellow learners and they reflect on their learning. A learner HA reflection on the discussion forum provides the evidence of quality engagement with the ideas and with her own values and beliefs.

“The practice of teaching environmental education concepts benefits both teachers as well as students. It helps the teachers to enhance their knowledge about environment. It also helps them to become critical thinker to respond existing environmental issues effective. It develops the sense of responsibility among students to think about their own surroundings. It also invites them to take initiatives to save this precious earth. It helps the students to develop confidence by giving them chance to take action at school level.(HA 2/6/2005)

Similarly another Learners reflecting on her learning for the course shared her views with the other learners. She wrote in her posting on 2/8/2005

I learn that the environmental education should not be fixed to textbook, let the student discover his/her own world of knowledge. Teacher should take the students to field visits and give the students real life experiences (SJ)

It is very important to mention the access and ability to express by learners in OL. This is the quality indicators of being able to interact with other learners. I considered these two examples from the female learners from remote part of Pakistan which are still rural in nature as an indicator of gender sensitivity of OL. This is the reason I have chosen example of two female learners for a less developed area and arguing that OL with quality can provide access and opportunity with quality to women learners.

In Table 2 I have given some quality indicators during implementation of the Programme. In the implementation stage the role of OL office is crucial as they based on the data collect at the beginning of the course regarding, socio-cultural, gender and computer literacy design a learner support system.

Table 2 Quality Assurance Indicators at Implementation Stage

Quality Attributes	Quality Indicators
Contextually relevant material is being delivered through various means	Delivery of face to face session addressing the learner learning challenge Reflective journals entry by learners Activity based teaching is encouraged and incorporated in assessment Continuous feedback Self assessment questionnaire rating at the end of each unit
Learner support	Interaction process in working between through OL office and learner

	Tutor and Learners Interaction is frequent on Email and at Discussion Forum and face to face if possible Response to Email within 5 days Feedback within one week after each query
Meaning full Learning experiences gained in the course	School based contextually relevant conservation projects Infusion in the teaching at the school Analysis of the curriculum and textbooks with environmental framework

Completion of OL Course

Each time when a course is completed, I reflect on the completion of course. However, the learning does not stop with the course ending but it goes on. The course is formally completed with the submission of final assignment and postings on the discussion forum. The project cycle in a sense is completed. The completion stage of the course also provided the team opportunity to take stock of what has happened during the course and how far we were able to achieve our stated quality. How we ensure our commitment to quality at the completion stage is important. At the completions stage the emphases of the quality assurance as suggested in the Palmers model is on the output. The most important aspect in OL at the end of course is to see how many Learners have successfully completed the course and how they have perform in various assessments and what kind of learning has taken place. The most important indicator is the quality of their reflection demonstrating the change in knowledge, skills, attitude and commitment to work for the conservation of world resources.

At the end of the course we evaluated the course outcome with quality perspective taking into consideration three aspects. First, OL as a source for learning transformation medium need to be evaluated for quality purpose. In this regards we have to again reflect on the goal of open learning. The physical access to learning is one of the goals of open and distance education. How far we have achieved it and what are the quality indicators?. Secondly, how far the objective and stated aim of the environmental education course was achieved?. Were we being able to achieve what we stated that we will achieve? Finally understanding the perspective of stakeholders, the learners what they feel about the quality of the learning opportunities, experiences and outcome of the course. The quality assurance indicator at the end of the course is suggested in Table 3 .

Table 3 . Quality Assurance Indicators at the Completion of the Course.

Quality Attributes	Quality Indicators
Open Learning aim is achieved.	Reflective journals entry of tutor and Learners End of course evaluation ratings End of course tutors evaluation rating % of Learners completed Discussion forum postings number and quality showing critical thinking and interaction.
Objectives of Environmental Education	Learners assignment demonstrated that they have achieved the knowledge skills to be a critical citizen Conservation project in schools successfully completed and reports Learners discussion forum reflections Analysis of reflective journal entries for environmental knowledge , skills, attitude and social action
Learners Views	Mid term evaluation entries and score card End of course evaluations score card Feedback about tutors qualitative and quantities score Reflections

Discussion forum also play a great role on assessment of learning. The students discussion forum posting are evidence of their learning and reflections. I have used the quotation from student's discussion forum posting of students after taking their permission to use their postings. Commenting on the learning a student from Syria wrote on 31/1/2005

Now I can teach my students about Environmental Education clearly and I can convey message to people to build their understanding about environment.

Furthermore, I will apply all skills to my own context for sustainable development (WM)

At the end of course SJ reflected and was asking herself question how she can bring sustainable development into her teaching. She also gave context specific examples how can bring in sustainable development in her teaching. She wrote;

Now as a teacher what should I do? if I look deeply into my teaching practices I can find many ways to contribute. For example while teaching any environmental issue instead to just teach text knowledge, I can practically involve the students because they want to take some action themselves and feel happy to take responsibility (SJ).

These quotations play an important role in assessing the quality of learning in the OL course.

Monitoring and Evaluation

Monitoring and Evaluation of the quality is essential feature of the quality assurance. In my view that M &E should be part of each stage of project cycle management and you may think of the ways in which you will assure that you measure and monitor the quality of the project at each stage.

Quality Indicators for Open and Distance Learning

As I have suggested earlier some of the indicators of quality at each stage of the project cycle management. These indicators are based on the personal experiences in the design and delivery of the OL program at the Aga Khan University Institute for Educational Development. These indicators can be further developed as we go further in institutionalizing the quality in higher education.

6. Challenges of Quality Assurance Paradigm

There are various challenges I can see while reflecting on my experience of quality assurance at IED in an OL program. Quality is problematic to define and people conceive quality is some thing which is only done by externals. The nature of quality is also problematic, whether this notion is static or dynamic. In my view the quality is about excellence, one need to continuously improve it based on the feedback and learning for the programme. The improvement in programme is actually enhancement of quality of programme. The improvement in the technology will also improve the access and delivery of the OL program. Thus technology implication has impact on the quality.

Another challenge is about the replicable nature of the quality assurance model in various contexts. I think based on the experience of quality assurance in OL, this is possible. The main model for the institutional quality and programme quality can be used to address the specific quality need of the educational programmes in higher institutions.

An additional challenge of quality assurance is about defining quality. The difference in agreement of quality understanding by faculties makes it very challenging for the faculty to assure the quality and measure it. Once the definition is agreed the indicators can be easily developed to measure it. The most challenging task is to assess what have Learners learn in an OL program when learning is taking place at different time and place.

7. Conclusion

Quality is a lived reality now for us to accept it and acquire measure to define it and develop a mechanism for the quality assurance for the programme at Institutional level and programme level. . It is most vital in the Open Learning Program to define quality as a policy. The institutional support is essential for quality assurance. Although quality is hard to define but it is possible to not only define the quality of each programme but also develop indicator for its assurance. The Parser model can be used for quality assurance at institutional level. Furthermore, the project cycle management approach can be effectively used at the programme for OL programme. The institutional support, contextually based relevant material, learner support, tutor, learner, learner interaction are some of the critical quality parameters for quality assurance of OI programme.

References

- AKU-IED, 1999. *Phase II. Strategy 2001-2006*. Karachi: AKU-IED.
- AKU-IED, 2000. Task Force 3 Report, Karachi: AKU-IED
- AKU-IED, 2004. *Open Learning Handbook* Karachi: AKU-IED.
- Benson, A.D. 2003. Dimensions of Quality in Online Degree Programs, *The American Journal of Distance Education*, 17(3):145-159
- Chambers 1999. *21st Century Dictionary Revised Edition*, Edinburg, Cambridge University Press
- Chinapah, V. (ND). *Quality Education*, UNESCO Position Paper, Paris, UNESCO Headquarters.
- Concise Oxford Dictionary, 1999. Oxford, Oxford University Press
- Donerty, G.D. 1994. *Developing Quality System in Education*, London, Routledge.
- Kennedy, D and Duffy, T. 2004 Collaboration – a Key Principle in Distance Education, *Open Learning*, 19(2):203-211

Fien, J., Heck, D., & Ferreira, J. (1997). *Learning for a Sustainable Environment: A Professional Development Guide for Teacher Educators*, Bangkok, UNESCO Principle Regional Office for Asia and Pacific

Gardella, J. 1993. *Environmental Education Curriculum Inventory*. Highland Heights, K.Y: Northern Kentucky University

Keegan, D. 2000. *Distance Training Taking Stock at a time of Change*, London, Routledge Falmer

Kennedy, D. and Duffy, T. 2004. Collaboration – a key principle in distance education, *Open Learning*. 19(2):203-211

Murgatroyd, S. and Morgan, C. 1993. *Total Quality Management and the School*, Buckingham, Open University Press

Otto, P. 1998. *Learning and Teaching in Distance Education: analyses and interpretation from an international perspective*, London, Kogan Page,

Touwen, A. (2001). *Handbook for Projects: Development Management and Fundraising*. Geneva: International Federation of University Women (pp. 18-22).

Milton, K, (1996). *Environmentalism and Cultural Theory: exploring the role of anthropology in environmental discourse*. New York: Routledge.

Peters, M. 2004. The Wisconsin Connection: the development of distance education at the Open University, *Open Learning*, 19(3):303-309

Purser, L. (2001, March). *Quality assurance in European universities*. Paper presented at the conference on Higher Education Policy and Reform in Europe, Belgrade. Retrieved April 30, 2004 from <http://www.kg.ac.yu/srpski/Dokumenti/QAhandout-LP.pdf>

Roblyer, M.D. and Wiencke, W.R. 2003. Design and Use of a Rubric to Assess and Encourage Interactive Qualities in Distance Education Courses, *The American Journal of Distance Education*: 17(2): 77-98

Scheer, S.B. 2003. Addressing the Wellness Needs of Online Distance Learners, *Open Learning*, 18(2)177-195

Shepherd, A. (1998). *Sustainable rural project*. New York: St. Martin's Press. (pp. 121-145).

World Bank. 1994. *Higher Education: The Lessons of Experience*. Development in Practice Series. World Bank: Washington, D.C.

Williams, P.E. 2003. Roles and Competencies for Distance Education Programs in Higher Education Institutions, *The American Journal of Distance Education*, 17(1): 45-57.

Zajda, J., Bacchus, K., and Kach, N.Nd. *Excellence and Quality in Education*, James Nicholas Publishers

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Profile

Abid holds a postgraduate degree in Environmental Management and Development from the Australian National University, Australia. He has overall 10 years experience of environmental and social impact assessment in Pakistan. He has specialized four years experience of carrying out environmental impact assessment for oil and gas sector, industries, and water resources management projects in Pakistan. He also carried out environmental and social assessment of World Bank projects, environmental trainings and audits for Honda Atlas, IUCN Pakistan, environmental assessment, and social audit, environmental monitoring, for Premier oil (PKP). Abid also conducted environmental surveys and community consultation in Kirthar National Park for Environmental Protection. He is a faculty member at Aga Khan University Institute for Educational Development AKU-IED as teacher educator, teaching and doing research in the area of **Environmental Education, Gender and Education, Educational Project Management and Strategic Planning and Development** to M Ed students from Africa, Central Asia, South East Asia and Middle East. He was among with core faculty team for developing course on Gender in Education, Educational Project Management and Strategic Planning at AKU-IED. He was lead researcher along with Dr Adam Nayyer a cultural anthropologist on World Bank study on assessing the impact of drought on community well-being and belief system. He has documented leadership dynamics, music, culture and indigenous knowledge in Kirthar National Park with Dr Nayyer .