

CHAPTER V

INDICATORS OF QUALITY

IN OPEN AND DISTANCE LEARNING

A. Qualitative and Quantitative Indicators

An indicator is defined as a thing that indicates a state of level [Oxford, 2005]. Hence the purpose of a performance indicator is merely to measure the progress of an activity; hence it should not be considered as an objective by itself.

In order to be effective in serving its purpose, an indicator should ideally be quantitative. However, a qualitative indicator is still acceptable, particularly in special cases where qualitative judgment is essential and quantification is not possible. In using it to measure an activity, the qualitative judgment should be converted into a quantitative scale.

Since ODL is a new mode in delivering courses for most people, it is only natural that many are questioning its quality. Questions on quality could be structured around the providing institutions, students/recipients, delivery process, available infrastructure, and the program itself, as described in chapter IV. The indicators on quality will be discussed in this chapter according to the structure presented in the previous chapter..

1 Providing Institution

1.1 Mission Statement

***Indicator:* The appropriateness of the ODL program to the mission of the providing institution.**

The institutional mission statement is the central issue in assuring quality in ODL program. The legal framework provided for an ODL programs varies significantly among the Southeast Asian countries, as described in chapter II of this guidelines. Considering the diversity of the ODL mission and objectives, the indicators should be carefully selected to be implementable. An obvious example is the ODL program with a mission of national integration, whereby the economic consideration becomes less relevant, whilst in other ODL program the same issue is the central consideration. In some countries, ODL

programs are recognized as equal with the traditional program in term of quality, whilst in some other countries are not even recognized as a formal education.

Nevertheless, there are some commonalities, e.g. accessibility and learning outcomes. By using these as reference, a set of common indicators for any ODL programs are then developed. Its appropriateness to the institutional mission is an example of an indicator requiring qualitative judgment in the evaluation process.

In its report, the US Department of Education [USDE, 2006] proposes the following evidences as indication of a match between the institutional mission and an ODL program.¹

- a) For an institution with significant numbers of ODL programs, the mission statement should be explicit, e.g. increasing access, reaching out to underserved or special populations. ODL programs are mostly considered as a strategy to serve students who need flexibility in terms of time and/or location.
- b) For an institution offering courses, but no full or only a few ODL programs, a well articulated rationale is needed. It could be found either in the planning documents or be noted by the academic dean or department head during discussions. The statement would make clear how the ODL will support the institution in achieving its mission.
- c) The population served is a central issue. ODL is obviously a good fit for working students, those whose schedules involve frequent travel, and those whose domicile is in relatively remote area. A good example is school teachers. If the institution is a traditional university whose mission is to serve traditionally aged college students where socialization is an important role, it would raise questions if the programs are delivered entirely via distance education without any provision for fulfilling the socialization role.
- d) A problem might be expected if the senior administrators are not able to articulate the strategic importance of ODL and its role in the broader mission of the institution. A review of course and program offerings might reveal a shift in the balance between face-to-face and distance education, when the two formats serve significantly different student populations. This may be evidence of an institution drifting from its

¹ US Department of Education, Office of post secondary education, March 2006, *Evidence of quality in distance education programs drawn from interviews with the accreditation community*

mission, unless it is part of the institution's strategic plan. Alternatively, it could signal the need for a revised mission.

1.2 Institutional Commitment

Indicator: The level of commitment of the providing institution

The institution is defined as a legal entity, i.e. university, or other institutions of higher learning. Other units within the institution, such as department or Faculty, are not defined as such entity. The institutional commitment is a central issue in assuring that support is provided and resources are properly allocated for the ODL program. Therefore it is always deemed important to link the ODL program with the institution's mission and strategy.

As an indicator, the institution's commitment is tightly coupled with the mission statement. In fact the level of institution's commitment could be assessed by observing other indicators. The following cases illustrate evidences that might be found when adequate level of commitment is not in place.

- a) Institutions whose main "business" is not ODL, for example traditional universities, could consider the ODL program is a less priority. Problems are rarely encountered when resources are abundant. But when resources become more stringent, support will be provided to its main "business" first, and the ODL program will risk of receiving inadequate support.
- b) In some cases, an over ambitious unit (department, Faculty, or other units) within a traditional university is offering ODL programs based on external pressures and its aspiration of capitalizing the available opportunity. Since such ODL programs are not institutionally incorporated within the institution's mission and strategy, the sustainability could be in doubt.
- c) Many ODL programs offered by such departments or Faculty are not properly designed and prepared that they might run into troubles during implementation. Since the providers are not fully aware of the required resources and expertise, they will request support from its host institution. ODL initiatives require substantial support from a cross disciplinary team, i.e.: subject matter specialists, ICT specialists, and

instructional designers. Such request has a slim chance to be fulfilled if the ODL programs are not congruent with the institution's mission and strategy.

2 Program

2.1 Program Planning

Indicators: The quality of the program planning, educational director, and outside experts.

A good process used in planning will result in coherent curricula and well-designed courses, whereby appropriate academic oversight is deemed important. This indicator again requires qualitative judgment during evaluation process.

- a) The documentation of the program planning and evaluation process needs to be reviewed. Other alternative is to interview the faculty leadership about the process. In order to confirm that the processes are followed, we need to look for additional evidence, i.e. minutes from faculty meetings, interviews with individual faculty about their involvement in planning and decision making, and written assessments of curricular materials.
- b) The qualifications of the educational director (particularly his/her experience with distance education) as well as the evidence of student success in the programs the director has overseen need to be assessed.
- c) In the case where outside experts are used to develop courses, the scope and objectives should be well defined, and rigorously reviewed. The mechanism applied to identify and solicit resources, and evaluate the qualifications of outside experts to fulfill their assigned roles, should also be thoroughly assessed.
- d) The ODL provider should research the industry, review curricula of programs offered by mainstream institutions, and adopted mainstream texts. This will lead to better-informed decisions about curricular goals, course objectives and instructional resources, which will provide students with marketable knowledge and skills. The development of a coherent curriculum, rather than a collection of courses, requires a systematic and coordinated approach to planning.

In assessing the planning process, it is recommended to look for,

- a logically sequenced course development schedule that will ensure the availability of courses as students need them;
- faculty training sessions that are aligned with the development schedule;
- the use of a common platform (for online courses);
- some consistency in course formats; and
- a schedule of course offerings for the next few years to assist students in planning.

2.2 Curriculum and Instruction

Historically, distance education was not part of the mainstream of higher education, whereby lecturers serving on teams as subject matter experts. These experts might be one of several instructors – including adjunct faculty – assigned to teach the course, using the centrally developed materials. Problems could be expected if the procedures applied for curriculum approval significantly differ from those for traditionally-delivered curricula, i.e. curricula are not reviewed by the faculty curriculum committee.

Other institutions – particularly the more traditional institutions that are moving into online education – have employed existing academic structures in the development of their distance education courses and curricula. In these cases, lecturers typically develop and teach their own courses. However, as these programs grow, the likelihood of the institution employing assistants with online teaching experience also increases, increasing the risk of lowering the quality of the learning process.

2.2.1 Laboratory works

Indicators: The quality of curriculum that includes laboratory works, quality of personnel overseeing laboratory works, and the comprehensiveness of the agreement signed with outside parties.

Curricula that include laboratories, hands-on learning components and practical works pose challenges when they are adapted for distance education delivery. The following points illustrate aspects to be observed.

- a) The curriculum documents to specifically address how these components will be provided and what kind of processes are in place to ensure adequate oversight by qualified personnel.
- b) In the case of outsourcing to others (another educational institution, a clinic, or a private technical training company), the provisions should be written in the agreement addressing elements that are key to ensuring the experience will support the learning outcomes. The review of distance education curricula also includes an appraisal of actual courses.
- c) A sample of syllabi to see whether course descriptions and learning objectives are clearly stated and whether the assignments and other assessment strategies are mapped or connected, to the learning objectives might be needed.
- d) If the courses are offered in both face-to-face and in distance education modes, comparable or equivalent learning objectives should be assessed.

2.2.2 Course structure

Indicators: Course outline, schedules, assignments, instructional strategy, and recentness.

The course objective should be clearly described in the outline. The outline should also include considerably detailed deliberation of topics to be covered at each session. Reading assignments, references, and other types of assignments need to be clearly spelled out with their planned schedule. Other aspects that might require attention are deliberated in the following points.

- a) The failure to consider the target population could be a fatal mistake. A single method of assessment in a course might indicate that the course does not adequately link assessments and outcomes. Therefore the target population should be clearly described together with the course objective.
- b) Courses that are designed with benchmarks and clear deadlines or recommended schedules provide evidence that the provider is aware of the time management challenges, and risk of attrition, of part time students, who are typically juggling a variety of obligations including work, family and study.

- c) It is suggested to request access to several courses in addition to those the institution initially provides in order to avoid seeing only those that are considered exemplary. A review of a variety of courses could determine whether there is a consistency in quality as evidenced by course design, basic pedagogical approach, use of tools, and level and types of interaction among students and between students and instructors.
- d) Further, assess the extent to which instructors add value beyond what a student would read in a textbook. For example, the instructor might provide additional information or resources to assist students in understanding difficult concepts; pose questions and facilitate and summarize group discussions; be available to answer individual questions about course material and assignments; and give detailed feedback on assignments. In some cases the group discussion requires an initial question from the instructor to trigger the follow up discussion among students.
- e) There are cases whereby courses are all very much alike, indicating a “cookie-cutter” approach to course development. While the use of the same platform will provide some consistency in online courses, different instructional strategies and tools to fulfill their individual objectives are needed.
- f) A close examination of the course syllabus is a strategy to assess the degree of importance of interaction between instructor and student and among students. Some evidence might include requirements for students to: participate in discussions, evaluate drafts of other students’ work, and work in small groups on projects. Other evidence would be the inclusion in the grading rubrics of “quality of participation” in discussions and group work. A mechanism to alert the provider might be needed when the majority of student postings lack substance and show little evidence of reflection or critical thinking. An inadequately designed course could fail to develop enthusiasm among students to enter the discussion.
- g) The recentness of the course materials is also an important aspect to be assessed. Course materials that have not been updated in over five years are unacceptable. For certain curricula the updating should even be done more frequently.

2.3 Course delivery

Indicators: learning management system, interface, student satisfaction, assistants, and interaction.

The course delivery in online courses could be assessed by accessing the courses themselves as they are in progress, or by reviewing transcripts of courses previously offered.

- a) Learning Management System (LMS) is a software package aims to manage and delivers the online content to learners (students and tutors). It plays a central role in the course delivery in ODL that a close look and rigorous inspection is highly recommended. It could reveal statistical data necessary for further analyzing the delivery system.
- b) The use of the same interface (in online courses) or layout (in print-based courses) lessens confusion for students, and is an indicator of good course design and institutional oversight. In print-based courses, “layout” would encompass the course overview and course objectives, unit objectives, narrative discussion, learning activities, and review questions. For online courses, the use of the same course management system will result in a common interface and basic course structure.
- c) The student evaluation is an obvious instrument to assess the student satisfaction. A standard procedure of reviewing the course delivery is required, particularly when students express dissatisfaction with the quality of their courses.
- d) It is not uncommon for a provider to employ part time teaching assistants or adjunct faculty to teach courses. Due to its part time commitment, a rapid turnover of these assistants should be well anticipated. In most cases, such rapid turnover will significantly affect the quality of the course delivery.
- e) A mechanism to alert the provider needs to be developed when the discussion board shows little or no activity. Problems might cause by technical deficiency in the communication network, Technical problems might also be due to a large number of students enrolled, increasing the risk of decreasing effectiveness of interaction unless additional provision is made.

2.4 Evaluation

Indicators: test procedure and instruments in learning evaluation, student evaluation, and evaluation by other stakeholders.

Learning evaluation aims to assess whether the intended student competence has been achieved. The following points illustrate some salient aspects to be considered in carrying out learning evaluation.

- a) Evaluating student's competence is usually conducted through quiz, test, and other types of written examination. Those instruments could be conducted in an ODL environment. However such evaluation is only limited to evaluate the cognitive aspect of student's performance. Other aspects of student performance are more difficult to assess by using such instruments, and might have to be excluded from the assessment.
- b) In general competences related to skills requiring physical ability are not possible to be conducted in an ODL environment. Although currently some ready to use software capable in simulating physical tests are available in the market, face to face examination is still required.

Program evaluation aims to provide feedback on course content, structure, and delivery. A good program evaluation should include the follow up actions. The following points need to be considered in assessing the program evaluation.

- a) Evaluation by students is usually conducted for each individual course by the end of each academic term. In order to acquire unbiased view, the questionnaire could be distributed to students before the final examination. In some cases evaluation could be conducted for sections of a course, particularly if they are taught by assistants and regular instructor. It could provide some indications on the gap between the two.
- b) Evaluation by other stakeholders is also a good practice. Employer survey is described in more detail in section 5.3. The most common practice in conducting evaluation by stakeholders is evaluation by faculty committee, which is conducted periodically, e.g. annually or biennially. Other stakeholders who could contribute to quality improvement include assistants, tutors, ICT staff, and other support staff. Problem arises in utilizing the ICT infrastructures could be raised by ICT specialists,

and problems faced by the assistants as well as tutors might be able to significantly contribute to the quality improvement.

3 *Resources*

3.1 **Human resources**

Indicators: instructional designers, instructor, ICT specialists, training, assistants, and tutors.

In ODL environment the conditions are different with the learning environment in the conventional university. In ODL a support system needs to be in place to ensure a quality experience. The institution needs to approach ODL in a systemic manner, which includes providing a range of instructor support services. In order to assess the quality of human resources, the following points need to be considered.

a) *Instructional designer*

The quality of the instructional designer is paramountly important in ODL. His/her role is particularly central during the course development. Together with the ICT specialist, they provide support necessary for the development process. Instructional designers should also play a central role in providing periodic training for the instructors or subject matter specialists.

b) *Instructor*

The quality of the instructor is central and should be demonstrated by their experience in teaching the same or similar course. But most of the subject matter specialists come with classroom experience, and few have experienced ODL either as instructors or as students. They are used to function independently, whereby developing courses doesn't need any assistance from others and managing the classroom on their own. Therefore the ability to work in a team with instructional designers and ICT specialists should become a key requirement.

c) *Staff training*

The development of instructors is a critical component for ensuring quality in ODL programs. The extent and frequency of the staff training, broader than software training, is a good indication of the existence of quality awareness. The training

program should include distance education pedagogy, with specific emphasis on instructional strategies to foster interaction, to convey concepts, and to assess student learning. It should also provide guidance to the instructor on how to translate an onsite course to the distance delivery mode in order to achieve specific learning outcomes. It should be clear what organizational unit is responsible for providing the training and support for instructor.

d) Assistants

In order to achieve some consistency in the quality of instruction, adjunct lecturer/instructor or assistants should have training and support comparable to that provided to the regular lecturer/instructor. Additionally, they need to be integrated into the culture of the institution. The kind of training and support received and their sense of engagement with the institution need to be explored. Their participation in lecturer/instructor meetings, service on lecturer/instructor committees, involvement in discussion forums, and selection as mentors to new lecturer/instructor could be assessed.

e) Tutors

In some cases local instructors (tutors) have a status different from adjunct lecturer/assistants, particularly when they are outsourced to universities located in the proximity to students. In order to prevent confusion, their specific role and capacity development should be explicitly spelled out.

f) ICT specialists

In most cases ICT specialists are available within the providing institution. However, a serious problem could be immediately observed if their services are not accessible by the ODL program when it is needed. Practically all players in the ODL program require substantial level of their services. If the main business of the providing institution is not ODL, the services to ODL might fall into lower priority. Therefore, in order to prevent the undesirable cases to happen, it is preferable that a special ICT team is assigned to provide dedicated services to the ODL program. Other alternative is to outsource the support to the host institution through a formal agreement that spell out clearly the tasks and responsibilities.

Problems might be expected if distance education pedagogy is inadequately taken into account. Insufficient support structure could be observed when the instructors are loaded with responsibility for resolving technical issues for students, or are required to produce their own courses (upload materials, find or design graphics, etc). Inadequate institutional commitment could also be demonstrated by overloading staff with teaching assignment, and at the same time is responsible for course development and delivery, in addition to a full-time teaching load.

3.2 ICT Infrastructure

Indicators: accessibility, including infrastructure for national backbone, broadcasting media, campus network, computers, peripherals, multimedia, access to Internet, Learning Management System, and Digital Library System,

At national level it requires a national backbone for delivering and sharing of learning resources. In the case such infrastructure in some remote regions are not available, a broadcasting network to facilitate the use of mixture between the newer and traditional ODL technologies is required. Campus network in the ODL providers is also needed to provide the necessary support. The infrastructure should be able to provide the following services:

- a) *Access to infrastructure:* the teacher, tutors, students, and administrative staff need to have good access to computers and telecommunication system (telephone lines or mobile telephone) when ICT infrastructures are available.
- b) *Broadcasting media:* particularly needed in regions where reliable telecommunication infrastructure is unavailable, and the course delivery is designed to use broadcasting media (TV, commercial and community radio)
- c) *Access to Internet:* the access shall be available for the students, the teacher/lecturer and the tutors.
- d) *Networking capability:* computer network and its peripherals.

In order to further elaborate the required infrastructure, the following points should be taken into consideration.

- a) *Computer infrastructure*: that plays a central role in the ODL system, consist of hardware and software system;
- b) *Peripherals*: such as printers, CD-ROM and DVD-ROM drivers;
- c) *Multimedia infrastructure*: should at least consists of the computer with multimedia facilities (available for students and teacher/lecturer/assistants/tutors), and studio facility for production of digital content;
- d) *Network infrastructure*: consists of servers and computers necessary for networking purposes, connected to LAN (Local Area Network) and WAN (Wide Area Network). The common standard is IP (Internet Protocol) based infrastructure, comprises at least computers, hub, and server.
- e) *Access to Internet*: ideally, every individual student, teacher/lecturer and tutors have access to Internet for 24 hours with high speed access to Internet and National Infrastructure network. In order to be effective the available Internet bandwidth for students, instructor, and tutors is at least between 0.5 Kbps and 5 Kbps.
- f) *Learning Management System*, that is the heart of an on-line ODL program, should be reliable and well functioning. The LMS should have the facility available for the students, instructor, and tutor. This facility should include the provision of services for students to enroll, collect and submit assignments, as well as conduct test. LMS should be the major supporting system especially for,
 - Planning: to evaluate and summarize the planning.
 - Evaluating the course, including the syllabi
 - Delivering the course materials
 - Managing the students, teacher, and tutor evaluation
 - Managing the laboratory preparation
 - Recording all the interaction between students, teachers and tutors.
 - Conducting tracer study for the students
- g) *Digital Library System*, is a library collection in which a significant proportion of the resources are available in machine-readable format (as opposed to print or microform), accessible by means of computers. The digital content may be locally

held or accessed remotely via computer networks. Although digital libraries do away with fees for staff, book maintenance, rent, and additional books, it has since been found that it can be no less expensive in their own way to operate. Digital libraries can and do incur large costs for the conversion of print materials into digital format, for the technical staff to maintain them, and for maintaining online access (i.e. servers, bandwidth costs, etc.). Also, the information in a digital library must often be periodically "migrated" to the latest digital media such as DVD-ROM or other media.

3.3 Learning support

Indicators: admission, registration, advisory, financial aid, library, material ordering, technical support, and pre-program orientation program

The providing institutions need to provide a full range of services necessary to support students in their learning at times and in ways that are convenient for them. These services include admissions and registration, enrollment advising, academic advising, financial aid, career counseling, library resources, textbook ordering, technical assistance, and veterans and disability assistance.

- a) A distance education orientation program, or primer, can give prospective students an idea of how they will fare in a distance education course.
- b) A website that serves prospective distance education students would include a thorough description of how the courses will be offered, how students will get textbooks and other materials, the kinds of equipment needed (which may include an online equipment check), any requirements for on-campus work, and a way to contact an advisor. A set of policies and practices that indicate a commitment to providing distance learning students with timely and accessible services and information.
- c) Evidence that technology support services are sufficient includes specific standards for response time to problem reports and data on actual response times and problem resolution, combined with student survey or interview data showing satisfaction. Ideally, technical support is available 24/7 (24 hours a day, seven days a week). If this is not present, technical support should be available during some evening and weekend hours and provision for dealing with an emergency situation. In addition,

there should be a means to communicate with students if a technical problem, such as a network outage, will affect them.

- d) The instructor provides information to students (in the syllabus, for example) about the timeframe in which they will respond to questions and assignments. These fall into parameters established by the institution or program.
- e) Information is provided to students on how to contact an academic advisor. Students are able to consult from a distance – by phone, fax, email, and/or online chat.
- f) Library resources (i.e., electronic databases) are increasingly available in electronic form for both onsite and off campus students. Nonetheless, there are things that need to be in place to ensure that students are well-served.
- g) The online library site to confirm that students are provided with information and training on how to use these resources, and have access to a librarian by phone, fax, email and/or online chat to request assistance or services, such as inter-library loan.
- h) Further, students use these services, such as statistics on number of webpage hits or number of database searches and syllabi that include course assignments requiring library search.
- i) The central requirement in the learning support is the Learning Management System (LMS), a software package aims to manage and delivers the online content to learners (students and tutors). Most LMS are web-based to facilitate "*anytime, any place, any pace*" access to learning content and administration.

Problems could be expected when full ODL programs with no onsite components, requires students to come to campus for some student services. Inadequate institutional commitment could be reflected by providing services by specialized staff instead of the institution's office. The problem becomes more serious when students have difficulties, or even doesn't know whom to contact, when they have questions or problems. Student's dissatisfaction could usually be observed through grievance process requires face-to-face meetings.

3.4 Other resources

Indicators: technical support for instructors, and legal support

Providing instructor access to specialized resources and technical support for course development and delivery is a sign of commitment of the institution for quality distance education initiative.

- a) Specialized resources available for instructor, and their satisfaction with the support provided is essential information in judging the quality of ODL. These resources include ICT infrastructure, library collection, and other resources necessary for developing and designing the ODL courses.
- b) Technical support provided to the instructors, particularly in the field of instructional design as well as information and communication technology, necessary for the process of designing an ODL course.
- c) Legal protection, demonstrated by a written document describing a clear scope of instructors' rights and responsibilities is an evidence of a good practice. Issues in intellectual proprietary rights are the most frequent legal cases in ODL that a special institutional attention should be properly given. In such cases, the institution could provide various supports to the instructors, i.e. legal advice, legal consultations.

4 Recipients

4.1 Prospective students

Indicators: The quality of incoming students, including their academic performance, and other personal characteristics suitable for ODL

In order to be successful, students who are admitted to distance education programs need to have the appropriate academic background, equipment, and personal characteristics, e.g.: being self-directed and having good time management skills. Assessment of information and resources an institution provides prospective students is important.

- a) Providing prospective students with a self-assessment of their skills and aptitude for distance learning is good evidence that the institution is attempting to enroll students with the appropriate characteristics in their distance education programs.
- b) Since courses are designed with a certain set of academic prerequisites to be met by the prospective students, a kind of “placement test” is needed to measure whether they have met these requirements or not. In most cases the test could be conducted administratively by reviewing the relevant documents submitted by the prospective students.

4.2 Student’s commitment

Indicators: The level and quality of student’s participation

Students who have met all the requirements to participate in an ODL course could fall behind due to their other obligations. It is common that recipients in an ODL program, particularly part time students, fail to cope with the time management challenges, who are typically juggling a variety of obligations including work, family and study. Due to these obligations, their commitment could also vary during the course timeframe. The availability of a system that will be able to monitor the recipients’ participation is an evidence of good practice.

- a) Assuming that all students have met the quality during the admission process, their participation in the course is supposed not to be problematic. The level of students’ participation, in terms of frequency and extent, could reflect their commitment to discipline themselves in meeting all requirements set by the course.
- b) The quality of students’ participation could be reflected by the substance of their posting during discussion and submission of assignments. Inconsistency in the substance of the students’ posting could indicate that their commitments are fading due to various reasons, risking the attrition rate to increase.

4.3 Tracer study

Indicators: tracer study conducted to gather information on graduate's performance

Although the standard tracer instruments in conventional programs might be inappropriate, it could provide a positive feedback to the ODL programs. The success of a graduate in their job, as rated by his/her employer, could reflect the added value provided by the ODL program. In ODL programs, the value of such study is more in the feedback and constructive suggestions than the quantitative data.

The most common instrument to solicit such opinion is by conducting an employer survey and/or graduate's tracer study. A periodic and systematic survey, followed up with a rigorous analysis, indicates that the institution is committed to continuously improve the quality of the ODL.

B. Tabulated Checklist of Indicators

Aspects	Indicators
Providing institution	
Mission	Stated mission
Institutional commitment	Institutional support
Program	
Program planning	Quality of program planning Educational director Quality of outside experts
Curriculum and instruction	Quality of curriculum that includes laboratory works
Laboratory works	Oversight officer for laboratory works Agreement with outside parties
Course structure	Course outline Schedules and deadlines Assignments Instructional strategy Recentness

Aspects	Indicators
Course delivery	Interaction Learning management system Interface Assistants Student satisfaction
Evaluation	
Learning evaluation	Test procedure and instruments
Program evaluation	Student evaluation Evaluation by other stakeholders
Resources	
Human resources	Instructor Instructional designers ICT specialists Staff training Assistants Tutors
ICT infrastructure	Accessibility National backbone Broadcasting media Campus network Peripherals Multimedia Internet LMS
Learning support	Admission Registration Advisory Financial aid Digital library Material ordering Technical support Pre program orientation
Other resources	Support for instructors Legal support

Aspects	Indicators
Recipients	
Prospective students	Assessment of student characteristics
	Assessment of student academic performance
Student's commitment	Student personal commitment
Tracer study	Tracer survey

References

US Department of Education, Office of Postsecondary Education, March 2006, *Evidence of quality in distance education programs drawn from interviews with the accreditation community*