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**QUALITY
ASSURANCE
IN DISTANCE
EDUCATION and
eLEARNING**

**CHALLENGES AND SOLUTIONS
FROM ASIA**

Quality Assurance in Distance Education and E-learning documents the existing regulatory framework covering quality assurance (QA) systems in distance education (DE) in a number of Asian countries. It draws on the knowledge and experience of 16 selected DE/e-learning institutions of Asia and reveals the respective development of QA systems and procedures within these providers/programmes.

The endeavour towards developing QA systems through various stages of testing and development is in response to the growing public concern for the quality of DE as well as staff aspirations for quality. This book, through the selection of cases from the aforementioned institutions, covers a wide range of QA systems and perspectives of quality in DE. These cases present good practices in QA for DE/e-learning, analyse challenges in assuring the quality of DE products and services, offer possible solutions to meet those challenges, and present lessons for other DE providers.



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Indonesia's Universitas Terbuka

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INTRODUCTION

An important development in this globalised era is the adoption of quality assurance (QA) systems to ensure that the quality and consistency of an organization's products and/or services meet the expectations and needs of the public. In the context of higher education, QA has been defined as "systematic management and assessment procedures adopted by higher education institutions and systems in order to monitor performance against objectives, and to ensure achievement of quality outputs and quality improvements" (Harman 2000: 1).

Quality has been set as a pillar of Indonesian National Education, together with access, equity and autonomy (Ministry of National Education 2002). To ensure the guardianship of quality, the Indonesian Government has established a National Board of Education Standardization (Badan Standar Nasional Pendidikan or BSNP) which has developed a set of National Education Standards (PP no. 19/2005). All educational institutions, including universities, are required to meet the eight quality standards with respect to learning content, competence of graduates, learning process, human resources, teaching and learning facilities and infrastructure, management, finance, and student assessment. Furthermore, as part of the national commitment toward quality, the Government has also established a National Accreditation Board for Higher Education (Badan Akreditasi Nasional Perguruan Tinggi or BAN-PT), an independent institution mandated to evaluate and accredit academic programs offered by all higher education institutions. In line with the eight quality standards set by the BSNP, BAN-PT has developed a set of accreditation

instruments which emphasize the importance of developing the internal QA system of an institution and of meeting all the key performance indicators for each quality standard. Any higher education institution that wants to be accredited by BAN-PT fills out and submits the completed standardized instruments, including an internal QA report, to the Secretariat of BAN-PT, which conducts a desk evaluation of the submitted documents and a site visit. Based on the results of both the desk and on-site evaluations, BAN-PT may grant accreditation status. The accreditation status granted by BAN-PT is valid for three years.

BAN-PT has also developed a separate set of instruments to accredit academic programs delivered through distance education, such as those of Universitas Terbuka. The quality criteria and key performance indicators for accreditation of distance programs are equivalent to those applied to face-to-face programs. In principle, all national quality standards that are applied to face-to-face higher education are also applicable to distance education (Belawati 2010).

UNIVERSITAS TERBUKA

Indonesia first embarked on correspondence education in the 1950s and, in 1984, the Indonesian Open University or Universitas Terbuka (UT) was established. UT was given mandates to broaden access for all Indonesians to higher education and to improve the qualifications of existing teachers who had graduated from high school level teacher training programs into full degree level or bachelor level. UT was designed to use an open and distance learning system, believed to be a flexible and accessible system that allows potential students to study regardless of their demographic, economic, and geographic situations. Starting with around sixty-five thousand students, UT now offers almost one thousand courses to over six hundred thousand students, 80 percent of whom are in-service teachers and over 60 percent are female. UT has four faculties: Economics and Developmental Studies, Social and Political Sciences, Mathematics and Natural Sciences, Teacher Training and Educational Studies, and a Graduate School. Apart from the Teacher Training and Educational Studies programs, which are only for in-service schoolteachers, all other academic

programs are open to any holder of a high school diploma, regardless of age and year of high school completion.

In order to maintain its openness, flexibility, and accessibility, UT consistently implements an open registration and learning system. Students may register at any time of the year and are free to take time leave during their studies without formal notification. The learning medium is selected to ensure that no Indonesians are marginalized due to a lack of access to certain technologies. Accordingly, UT's main learning medium is printed study materials, supplemented by various nonprint materials such as CD-ROMs and online materials. Learning support is provided through various media, including face-to-face, online, or radio tutorials. Students are expected to choose the learning support medium that is most suitable to their personal preference and circumstances. Assessment, however, is highly structured, through sit-in supervised examinations in certain locations designated by UT. Since 2006, UT has offered online examinations as an alternative method for those who are unable to attend the regular sit-in examination at the scheduled times. The online examinations take place in UT's 37 Regional Offices through separate registration. In order for students to graduate from their programs, they need to complete a minimum of 144–145 credit points, achieve a minimum GPA of 2.00, and pass a comprehensive examination known as the Tugas Akhir Program (TAP). This open system has proven effective in widening access to higher education and increasing participation rates in higher education.

Operating an open policy for such a large number of students within a vast country like Indonesia requires a strong management system. The Head Office is responsible for the academic and administrative policies and developing academic programs and materials, while the daily operational activities to serve the students are devolved to the Regional Offices. To provide optimal educational services to students, UT collaborates with other institutions, including local public and private universities as well as local government agencies and offices. At UT, the QA system aims to ensure the satisfaction of students and other stakeholders in terms of both academic and academic administration services.

A decision in 2001 to operate all UT activities according to standardized levels of quality has led to equal quality

services for all UT students, regardless of their domicile. At that time, however, there was no available standard quality framework for open and distance learning (ODL) systems, except for a draft QA framework developed by the Association of Asian Open Universities (AAOU), of which UT is a founding member.

Since that time, UT has continuously developed and improved its internal QA system, and regularly invited national and international bodies such as BAN-PT, the International Council for Open and Distance Education (ICDE), and the International Organization for Standardisation (ISO) auditor agencies to assess and review the results of UT's commitment to quality. The acknowledgements received from such bodies reflect both national and international recognition of UT as a quality educational institution (Belawati and Zuhairi 2007).

This chapter will describe UT's QA policies and system. Specifically, it will focus on sharing the experience of UT in using the ISO 9001 approach as a tool for strengthening the implementation of its internal QA system.

QUALITY ASSURANCE AT UT

Overall QA Policies

As mentioned, based on AAOU's draft of a QA Framework, UT started to develop policies on quality applicable to its characteristics as a higher education institution which implements an ODL system. This development took around one year and involved all stakeholders affected by the policies. The policies materialized in the *Sistem Jaminan Kualitas Universitas Terbuka* (Universitas Terbuka Quality Assurance System) in 2002. The QA policies consist of nine components, comprising one hundred and seven statements of best practice as follows.

1. Policy and planning (seven statements)
UT determines its own mission and objectives that reflect UT's academic commitments and the needs of society.
2. Human resource recruitment and development (nine statements)

The staff and personnel management system is appropriate for the education and training services provided. The UT sets out development programs that equip staff to perform their tasks effectively.

3. Management and administration (21 statements)

The UT has clear and effective communication channels and has efficient resource management and administration systems that enable UT to achieve its objectives. The UT is financially sound and can make reliable educational provision.

4. Learners (10 statements)

There is a system of collecting detailed information about learners and using this information to inform all aspects of policy and planning, program and course development, support services, and the overall processes of teaching-learning.

5. Program design and development (six statements)

Programs are designed and developed with the needs of learners, employers, and society in mind; to encourage access to quality education; and set in place assessment methods appropriate to the aims and objectives of the programs.

6. Course design and development (14 statements)

The course syllabus and content is well-researched. The course materials have appropriate objectives and outcomes, content, approaches to teaching and learning as well as to assessment presented clearly. There is an identified process of development and review of courses.

7. Learning support (18 statements)

Learners are supported by the provision of a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at a distance; contact tutoring, assignment tutoring, counseling, and the stimulation of peer support structures. The needs of learners for physical facilities and study resources and their ability to access these are also taken into account.

8. Assessment of student learning (15 statements)

Assessment as an essential feature of the teaching and learning process is properly managed, and reflects external standards.

9. Media for learning (seven statements)

The selection and application of media reflect the teaching and learning needs in a course and are the most appropriate. In particular, the choice of media is based on knowledge of the learners' and educators' backgrounds and abilities, the requirements of the content, learners' access to the associated technology, the pedagogical design for the course, and the limitations of the media.

With these statements of best practice, UT developed a set of QA manuals to guide the implementation of the standard operating procedures and attain the set quality standards. The QA manuals also emphasize the interrelationship among processes, so that everyone understands that their work affects the work of others: every step of the work is a part of a cycle. For example, nonconformity in one process (e.g., delays in developing learning materials) will affect the next process (a delay in printing and distributing learning materials to students). This nonconformity will therefore significantly affect the quality of service to students.

Once the QA policies were in place, in 2002 UT conducted a series of self-assessment exercises, where each statement was critically evaluated against the performance at each management level within the working units (i.e., Study Program, Faculty, Institute, Regional Office, etc.). The self-assessment results (using a 1–5 scale) at each management level were integrated with the higher levels, resulting in an agreed standard of quality for the whole university for each quality statement. The exercise led UT to the realization of the need to improve many aspects of quality. The next step was to set priorities for quality improvement.

The first priority was given to developing the aforementioned QA manuals as working guides for all processes. This involved around two hundred staff representing all units at UT, and took about two years to complete. Table 5.1 shows the components of the QA policies and the number of QA manuals in each component. As revealed in Table 5.1, UT has two hundred and fifteen QA manuals, which specifically outline the processes in all of UT's programs and activities. The manuals tend to heavily focus on the flowchart of a process, and contain steps, person in charge, timing, and quality indicators for outputs of each activity. All staff are expected to understand the QA processes and consistently implement them to ensure the achievement of outputs at the

Table 5.1 QA components and number of QA manuals at UT

No.	QA component	Number of QA manuals
1	Policy and planning	11
2	Human resource provision and development	30
3	Management and administration	45
4	Learners	46
5	Program design and development	9
6	Course design and development	24
7	Learner support	20
8	Learner evaluation	23
9	Media for learning	7
	Total	215

Source: Sistem Jaminan Kualitas UT (2002).

defined quality standards. It is noted that, regardless of the continuous efforts to maximize effectiveness, the Manuals still lack measurable goals for each of the processes. Another round of revisions is therefore already underway. The belief in continuous improvement and commitment is encapsulated in the motto that *"we write what we do, we do what we write, we check, we act, and we improve it continually."*

In line with internal efforts to establish and implement a rigorous QA system, UT seeks external validation to ensure that all efforts have indeed resulted in better quality performance. Academically, UT works with Indonesia's BAN-PT to gain accreditation for all its academic programs. Operationally, UT invites ICDE to review its quality and efforts. ICDE's quality review focuses on ensuring that institutional policy with respect to openness and flexibility, commitment to educational values, good customer relationships, and business practices are all well guarded. In addition, UT also decided to use the ISO system to check the quality and consistency of its management processes as a complementary validation of QA efforts. The following section discusses the experience of using this ISO approach as part of its QA System at UT.

Certification with ISO 9001 Standards

As an open university, UT basically operates like a business entity. The ISO 9001 for Quality Management System is considered an appropriate tool to ensure the quality of its management processes.

Using the PDCA (Plan-Do-Check-Act) approach from ISO 9001, UT is required to continuously evaluate the system and procedures both individually and as a whole in terms of assumptions, efficiency of practices, and whether the QA manuals remain relevant. The key to effective QA is performing the evaluation openly and honestly, both by internal and external audits. An internal audit occurs each semester, undertaken by internal auditors who have been certified by ISO 9001 training agencies. Results of the internal audit are used for continuous improvement and as tools to avoid any recurrence of faulty processes. Similarly, an external audit is performed every semester by invited external auditors from ISO auditing agencies. The outcomes of external audits affect the status of extension as well as possible termination of the ISO certification.

The adoption of the ISO system helps UT to implement the QA manuals and thus ensure the quality of all processes and outputs. As a large organization with almost eighteen hundred staff spread across head office and 37 regional offices throughout the country, it is not easy to monitor and evaluate whether all the standardized procedures formulated within the QA manuals are being implemented consistently. UT has confidence in its internal monitoring system, but believes that an external "hand" can help verify a consistent commitment toward quality. Therefore, the goal is not just to obtain the ISO certificate, but rather to help maintain the commitment of all staff within UT to consistently follow the QA manuals. This sustains and enhances the quality of all processes and outputs of the university. Based on the experience of the past five years of using the ISO system, a positive impact on staff and university performance has been observed, resulting in a significant decrease in students' complaints and problems. It is of course a "bonus" that having ISO certificates also helps to strengthen public confidence in UT.

The use of the ISO approach started in 2005, when UT sought to obtain ISO 9001 Quality Management certification for the learning materials distribution performed by the Center for Learning Material Distribution Services (Puslaba). Puslaba was chosen because of the challenging nature of the Center's task in following tight schedules to deliver learning materials to students. Any holdup in the delivery would delay the students' independent learning process, which in turn would negatively influence the

chance to master the materials before the examination. Puslaba earned the ISO 9001 certificate for Learning Materials Services in 2006. As a follow-up to the process of certification, Puslaba revised its QA manuals, making them more precise and comprehensive. Puslaba also developed an umbrella QA manual for all processes in learning materials distribution. In total, to support the attainment of the ISO 9001 certificate, Puslaba applies nine QA Manuals and 13 supporting working procedures.

In 2006, UT decided to obtain ISO 9001 certification for the development process of learning and examination materials and for student services at UT regional offices. The preparation process led to revisions of relevant QA manuals and recognition of the need to develop working procedures. UT has continued to use ISO 9001 certification to improve the quality of academic administration services, with the number of QA manuals used in various management aspects shown in Table 5.2.

As shown in Table 5.2, the attainment of ISO certificates for student/learning services at regional office level was not achieved at once, but gradually according to the readiness of each individual regional office. However, upon completion, the 25 regional offices were then integrated and the certification was merged into one ISO 9001 certificate, as they had achieved the same level of quality and working culture. In the near future, an audit will integrate all 37 regional offices into one certification.

Table 5.2 List of ISO 9001:2008 certificates

<i>Quality management aspect</i>	<i>Year of ISO certificate attainment</i>	<i>Remark</i>	<i>Number of QA manuals</i>
Learning Material Delivery Services	2006	Mostly covering activities in the Center for Learning Materials Delivery	9
Development of Learning and Examination Materials	2007	Covering activities in the faculties, Multimedia Production Center, and Examination Center	29
	2009	Integrated with ISO for Learning Materials Delivery Services	34

(Table 5.2 Continued)

(Table 5.2 Continued)

Quality management aspect	Year of ISO certificate attainment	Remark	Number of QA marks
Student/Learning Services at individual Regional Offices	2007	Covering activities at 11 Regional Offices	25
	2008	Covering activities at 12 other Regional Offices	
	2009	Covering activities at 8 other Regional Offices	
	2010	Covering activities at 5 other Regional Offices	
	2011	Covering activities at the last Regional Office	
Academic Administration Services	2008	Mostly for activities in the Bureau of Academic Administration, Planning and Monitoring (BAAPM)	6
Promotion and Cooperation	2008	Mostly for activities in BAAPM	6
Student/Learning Services at 25 Regional Offices	2010	Merging of previous ISO Certificates for 25 Regional offices into 1 ISO Certificate	25

Source: Pusat Jaminan Kualitas UT (2011).

Similarly, in 2009 the audit of learning material delivery services was integrated with the audit for learning and examination materials development, enabling the certification to be merged into one ISO 9001 certificate. UT also integrated the audit of academic administration into the audit of student learning services at regional offices, thus avoiding extension of ISO certification for academic administration alone.

UT plans to eventually maintain only two ISO certificates, one for operational aspects, covering what are now under the ISO for student/learning services at regional offices and some additional aspects at the head office, and another covering all academic activities. The integration of different ISO aspects

will enhance the efficiency of the system without decreasing its comprehensiveness.

CHALLENGES AND LESSONS LEARNED

Need for Ensuring Quality of Academic Content

The implementation of ISO 9001 has effectively improved the quality of working processes in all units at UT. However, ISO 9001 is not concerned with content, and therefore cannot be used to ensure the academic quality of learning and examination materials. Recognizing that content is a key aspect of quality, UT places the academic quality of the materials at the core of its QA activities, and continuously revises the learning and examination materials through regular reviews by both internal and external experts in related fields. With a large number of courses (approximately one thousand) currently on offer, revising the materials is not an easy task. The policy is that the materials for every course have to be revised once it reaches its fifth year of use, which leads UT to revise around two hundred courses every year. Assessment of the academic quality of the learning and examination materials is included in BAN-PT's program audit. All study programs at UT were reaccredited by BAN-PT in 2011.

Balancing Standardized ISO Procedures and Humanist Working Culture

The ISO 9001 approach has helped UT maintain high-quality and requires the documentation of all activities, so that processes can be easily evaluated and improved accordingly. However, implementation is not without challenges. It has not been easy to change the existing work culture into a "write what you do, and do what you write" culture, as required by ISO 9001. One example of this challenge is the requirement to produce minutes for each conducted meeting, which is sometimes forgotten. Even when minutes are recorded, a component often missing is verification of decisions made during the meeting. Another difficulty is the internalization of working procedures. The replacement of a Head of unit can result in a "back to square one" condition, especially

if the new head has not been informed of the ISO 9001 working procedures used in the unit. An additional challenge in having such standardized working procedures is that staff may become bored as tasks become "routine," thus decreasing the human touch in performing their work. Concerns have been expressed that staff have become like "machines", making some working processes almost unbearable. A team has been established to look into these issues and see what the university should do to balance the application of standardized procedures and the maintenance of a humanist working environment.

Building Personnel and Internal Audit Capacity

UT needs people with certain qualifications and competencies to effectively carry out required tasks. However, it has not been easy to appoint the right people to the right positions while at the same time recruiting local people for each regional office. The lack of suitable local people to head UT's regional offices can sometimes be problematic. "Parachuting" personnel from the UT head office to the regional offices needs special attention in order to maintain a harmonious environment in the regional offices. To address this issue and increase personnel competencies, UT operates continuous staff training and has increased internal audit capacity by sending personnel to gain internal auditor certification. By doing this, UT can conduct more effective internal quality audits prior to the external audit process by the ISO agencies.

CONCLUSION

It has been a long journey since UT first developed its QA system based on the AAOU draft of a quality framework in 2001. Over the past 11 years, UT has initiated many new developments in both QA frameworks and standards, and AAOU has revised its QA framework. At the national level, the Ministry of National Education in Indonesia has launched a new QA system for higher education (Sistem Penjaminan Mutu Perguruan Tinggi or SPM-PT), which will soon be in effect. In addition, Indonesia's BAN-PT has also developed a special accreditation instrument for ODL (UT), which contains quality elements and indicators to be

addressed. Likewise, ICDE has also developed quality measures that are used to review ODL institutions and systems, on request. These recent developments and changes mean that UT needs to integrate all quality elements and indicators into a comprehensive QA framework that encompasses the QA policies of SPM-PT, BAN-PT, ICDE, and ISO 9001. The integration of the four QA systems into one comprehensive new system will allow UT to be internationally recognized while at the same time follow national standards.

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