

Distance education public policy and practice in the higher education: The Case of Indonesia.

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ABSTRACT

This paper presents a review of the past, current and future situation as regards the use of Distance Education (DE) in Higher Education (HE) in Indonesia. The emphasis of the paper is on the role and impact of public policy decisions on the acceptance and use of DE, governmental regulation and quality assurance, and the funding of projects. This paper is in part based on information researched for a project to support the Government of South Africa in the process of reformulating its public policy with respect to DE, by providing case models of how other nations at similar stages of economic development address these issues. Whilst reviewing the broad spectrum of DE activities in the Indonesian HE sector, the paper presents a more detailed case analysis of Universitas Terbuka (UT), Indonesia's Open University.

RESUMO

O presente artigo faz uma análise da situação passada, presente e futura da Educação a Distância na educação superior (graduação), na Indonésia. A ênfase do artigo é no papel e no impacto das decisões das políticas públicas no que se refere à aceitação e ao uso da Educação a Distância, à regulamentação governamental e garantia da qualidade, e ao financiamento dos projetos. Este artigo é, em parte, baseado em dados pesquisados para um projeto de apoio ao governo da África do Sul no processo de reformulação da sua política pública para a EAD, considerando modelos de casos sobre como outros países, em estágio similar de desenvolvimento econômico, aborda tais questões. Enquanto revendo um aspecto amplo das atividades de educação a distância no ensino superior Indonésio, o artigo apresenta uma análise mais detalhada da situação na Universidade de Terbuka, a Universidade Aberta da Indonésia.

RESUMEN

Lo actual artículo hace una análisis de la situación pasada, presente y futura de la Educación a Distancia en educación superior (graduación), en la Indonésia. La énfasis del artículo es en papel y en lo impacto de las decisiones de políticas publicas cuando se habla en aceptación y al uso de la Educación a Distancia, a reglamentación del gobiernó y garantía de cualidad, y al "financiamiento" de proyectos. Ese artículo, basado en datos pesquisados para un proyecto de apoyo al gobiernó del la África del Sur en proceso de reformulación de su política publica para la EAD, considerando modelos de casos sobre otros países, en proporción igual de desarrollo económico, se refiere en esas ideas. Mientras analizando un aspecto amplio de las actividades de educación a distancia en ensino superior Indonésio, lo artículo presenta una análisis más sensible de la la situación en la Universidad de Terbuka, la Universidad Abierta de Indonésia.

DISTANCE EDUCATION PUBLIC POLICY AND PRACTICE IN THE HIGHER EDUCATION SECTOR: The Case of Indonesia.

Introduction

Distance education has been seen as a provider of mass education that is able to overcome geographical, socioeconomic, and time constraints. In Indonesia, distance education emerged in the 1950s, when

Indonesia was struggling to establish its own education system and to provide access to primary education for its people in a very dispersed area, after one decade of independence. Correspondence-based teacher training was the chosen alternative by the Indonesian government to address this national need at that time. A formal distance education institution at tertiary level, Universitas Terbuka (UT), was established in 1984. Along with the government's efforts in accelerating human resources development in Indonesia, UT was also seen as the most capable higher education institutions for providing access to higher education for those who previously has been denied access to higher education due to economical, geographical and/or time constraints. For many people, UT was also the most feasible higher education institution for providing continuing education for wider intellectual exercises and interests.

In addition, the government of Indonesia has also been offering a radio school to junior high school students at remote areas. Furthermore, in an effort to provide basic-9 year education to all Indonesian children, the government of Indonesia has also been organizing "KEJAR Paket A" and "KEJAR Paket B". Kejar Paket A is a distance learning instructional package for children who dropped out of primary school, that enables them to obtain a primary school diploma. Kejar Paket B is for children who dropped out of junior high school, enabling them to obtain a junior high school diploma. While the radio open learning school is organized as formal education, the Kejar Paket A and B are organized as non-formal education. The radio school takes advantage of the availability of radio, while the Kejar Paket A and B are offered mostly based on printed self-instructional materials and regular tutorial services. More recently, many more institutions, especially at the tertiary level, are participating in the provision of education at a distance in Indonesia.

The advancement of ICT has influenced the growth and development of distance education (DE) in Indonesia, from its first generation as a form of education for teachers, into formal degree granting institutions and - growing into second, third, fourth, even fifth generations of distance education - now offering continuing education programs based on newly emerging learning needs.

1. The role and nature of DE in HE.

1.1. Accepted concept and definition of DE.

In the early years of DE in Indonesia, DE was freely translated as "correspondence study" offering mostly courses for upgrading teachers. When the Indonesian Open University - Universitas Terbuka (UT) - was introduced in 1984, DE was still interpreted as correspondence study. UT was aimed at providing access to higher education for recent high school graduates who could not go to conventional universities due to economic or geographical constraints. In addition, UT was also to provide teacher-training programs for upgrading the quality of working teachers in Indonesia. In its development over time, UT's first aim was modified by the market, which changed it into provision of a "second chance" for more mature working students to participate in higher education. However, the in-service teacher-training component continues up to now.

In the newest national law on the national education system (UU Sisdiknas 20/2003, issued in July 8, 2003), distance education (DE) has been mentioned specifically (article 31) as one among many choices available for Indonesians to obtain education. DE is "approved to be used at any level (from elementary to tertiary, from formal degree granting to continuing ed.), by means of any mode (single and or dual mode)". Thus, distance education is to be treated as equal to other forms of education.

As a public higher education institution, in the era of open competition, UT is currently facing many challenges. This issue plays an important role in the development of UT to offer higher education opportunities to every Indonesian across time and space, regardless of geographical or economic, or other forms of constraints. The issue is becoming more prominent since UT has so far been the single educational institution that can provide equal access to higher education to every Indonesian, but now, with developing computer and communication infrastructures in all universities and in the country at large, UT is facing competition in the DE sector from many other Higher Education (HE) institutions. From 1984 up to 1997, about 1800 private universities were established in every corner of Indonesia. Those private universities as well as the 86 public conventional universities, are now rushing into distance education, since they see it as financially rewarding to their organization and they consider "the operation of a distance education system relatively easy and simple". Based on this situation, the market niche of UT became more focused toward "working students" in the form of in-service training for non-teachers as well as teachers.

Another issue is global education, also aided by the advanced development of information and communication technology (ICT). Along with UT's services to every Indonesian, UT also has to be able to

take advantage of the development of ICT and be at the forefront of E-learning. The most important factor influencing the use of ICT in UT is the teaching and learning paradigm-shift faced by both educators and students of UT, since E-learning requires a new mind-set, different from the first generation, or "traditional" distance education paradigm.

The third issue is the country's economic crisis and the learning culture of Indonesians. The ramification of the national economic crisis is touching every aspect of life in Indonesia, including education. The customers of the education system (students) are increasing the urge to get educational certificates for better jobs, higher salaries, or personal economic improvement. From 1997 onwards, during the early years of the current Indonesian economic crisis, UT became the first choice of most people who wanted to go to higher education, due to the more affordable tuition fees. From around 300.000 students before the crisis, UT's enrolment hit 400.000 students in 1998. These quantitative expansion factors and their associated problems are compounded by the qualitative problems related to the passive and rote learning tradition of many Indonesians. The current economic situation leads the HE sector to address the demand of students who are rushing toward earning a degree or formal certification through every possible way. In this rush, the characteristics of the target audience and the very nature of the learning process are sometimes forgotten in the need for marks (grades) and certificates (degrees). Just like many other innovations in education, sometimes replications are made based on the tangible "surface" aspects of an innovation, without enough understanding of the underlying intangible assumptions and philosophy. This applies in the case of recent developments in distance education in Indonesia (Mustafa and Pannen, 2002).

Observing the available opportunities, some of the HE institutions translate the now popular and recently "legalized" distance learning as "remote classrooms". The faculty members visit the distance students at their home town to conduct quite conventional face-to-face teaching and learning activities. Some other universities see distance education as "independent study", implemented by offering a stack of lecture notes and textbooks for students to read on their own, until the exam time comes. Still other universities translate distance learning as on-campus E-learning. Students are encouraged to take an active role in their own learning and become autonomous, by accessing the learning materials available on the web, and the teachers are also expected to use the web to store their lecture notes. However, the face-to-face interactions between teacher and students remain as usual. This mode of "distance learning" is applied by some of the newer private universities that have invested heavily in ICT. Many universities are now qualified to deliver their courses based on the use of ICT, since some of them have already obtained an ICT-based campus infrastructure (through foreign funding, etc.). In these ways, distance education - practiced as single mode as well as dual mode - is starting to flourish in the HE sector in Indonesia. Some of the implications of this expansion, which is not always based on sound theoretical principles, is examined in this paper.

1.2. Institutions that provide DE in HE

The trend towards ICT in education has such an intrusive presence that it creates a compelling "perceived" need in the minds of academic administrators to be at the leading edge. This trend is apparent among the higher education institutions in Indonesia - a country that until recently has not had the privilege to enjoy the luxury of advancement of informatics and internet infrastructure (Mustafa and Pannen, 2002). This so-called technological imperative has elicited a range of reactions among higher education institutions. At one extreme, there is Universitas Terbuka, the Indonesian Open Learning University, a distance education university which is operating as a 2nd generation of distance education (multimedia and correspondence distance education). At the other extreme there are about 1800 universities - public as well as private universities - ranging from high capital supported to poor capital supported universities. On another axis, there are extreme "techies" who believe that anything hi-tech is good and that universities must keep up with the times otherwise they will lose their credibility, and at the other extreme there are also those who are wary of technological advances and resistant to change. Among those extremes, there are also those who have a different perception of the technological imperative, translating distance education (and especially ICT-based distance education) as a panacea for all educational problems.

Thus, distance education has become the "buzz" word in Indonesia, especially after the economic recession of the 1990s. DE is seen as the most feasible, inexpensive, and "easy" mode of education, which can open up access to education for many students, many higher education institutions have rushed into the business of distance education.

There are 86 public higher education institutions (excluding training agencies in ministerial departments) in Indonesia (including polytechnics). Among these institutions, the application of DE is varied. The big four universities, who have been acknowledged to be "autonomous" by the government, are running as fast as they can to

implement ICT-based DE programmes, a trend that is mainly due to tight competition for income-generating courses. In this case, "autonomy" means no subsidy from the government anymore, except for the existing capital investments (buildings, etc.).

Universitas Indonesia (UI) is involved with the World Bank for the GDLN (Global Development Learning Network) project. UI is offering a Masters program in economics as their GDLN project, funded by the World Bank, in three sites: Jakarta, Denpasar (Universitas Udayana), and Riau (Universitas Pakanbaru). Preparation is underway, but the program has not been officially opened for student intake. The tuition fee is planned to be a bit higher than similar regular face-to-face programs, thus the program is aimed only for young executives in big cities. In addition, UI has also been involved with Harvard University, offering Harvard online courses as UI courses to UI students.

The Institute of Technology in Bandung (ITB) has long been initiating some innovation in E-learning. There is the so-called Asian Initiative on Internet (AI3) Center, which works closely with some Japanese universities to offer courses in Engineering online. Their innovation plans also include digital library development (Indonesian Digital Library Network) and distance learning for Masters degrees in Industrial Engineering and Information Technology.

Universitas Gajah Mada (UGM) in Yogyakarta is still struggling to get started. They have made some preparation and offer small proportions of their program via the distance mode, but have not yet opened to the public. The Institute of Agriculture in Bogor is also at the same stage as UGM. Universitas Jember has also developed some web-based courses, housed on the DIKTI website (Directorate General of Higher Eds.) (www.dikti.org).

Universitas Jenderal Sudirman has collaborated with ITB to offer engineering courses online. Universitas Hasanuddin in Makassar (located in the Eastern part of Indonesia) has been planning its institution as a network coordinator for higher education institutions in Eastern Indonesia. It has also been developing some web-based courses that are housed at the DIKTI website.

DIKTI itself is planning on utilizing its website optimally, with several databases - legal papers and regulations, accreditations, profiles of higher education institutions, research, academic matters, and DITKI policy - as well as technical information and procedures.

In addition to all of those universities and initiations, of course there is UT, with its own ICT development / implementation plan. (See section 1.6 below).

Furthermore, there are also some other distance learning and E-learning activities taking place in a very informal manner, offering no certificates nor accreditation (Purbo, 2003). The sharing of knowledge in those activities is facilitated through discussions carried out via e-mail, focusing on highly current and practical knowledge. Purbo also states that *"it would appear no official permits are necessary for these distance learning and e-learning processes adopted by most of the Indonesian online communities"*.

1.3. Who studies by DE?

Universitas Terbuka is currently serving around 225 thousand students all over Indonesia. In 1995, UT has been named one of the mega universities in the world for having enrollment rate at around 400.000 students. As mentioned above, the student numbers at UT grew significantly in the early stages of the 1990's economic crisis, as students found the UT enrolment fees more affordable. However, as the economic crisis continued, even these fees were not sustainable for many students, resulting in a very significant reduction in enrolments. Furthermore, the other, technology-driven, changes that are leading many campus-based HE institutions to offer some DE programs may also be having an impact on enrolments at UT. This issue will be further discussed in later sections of this paper. The changes in the student body at UT are depicted in the following table:

Year	Number of Students
1996	397.543
1997	417.204
1998	442.897
1999	324.661
2000	289.248
2001	285.926
2002	236.203

The majority (95%) of UT students are working students (in-service training). About 20% of UT students live in very remote areas. However, the biggest concentration is still in Java - about 60% of the student population. At present (2003) there are about 225.000 active students (60% are teachers from the Faculty of Education, 17% in public administration, 13% in economics, and 10% in basic sciences).

In the Faculty of Education, the study program is divided into four consecutive packages. Each package was designed to be equivalent to a specific teacher certification: first package = diploma 1, first and second = diploma 2, first, second and third = diploma 3, and all four = Bachelors diploma. Students can, in theory, enter at any point, leave at any point with its equivalent qualification (multi-entry and multi-exit). Thus far, the Faculty of Education practices two entry points: diploma 2 and diploma 3, and two exit points: diploma 3 and Bachelors.

Other faculties offer degree-granting programs for Bachelors as well as diploma 3. In addition to fresh graduates, banking staff, airline staff, army, agricultural extension workers, and public officials in provinces enrol in UT courses.

Print	A-V Media & Materials	Computer & Web-based	Tutorial (alternative delivery modes)(F2F=face-to-face; required or free-choice)			
			F2F-req	F2F- free	Web	Corresp
x						
x	x					
x	x	x				
x			x			
x				x		
x	x	x	x		x	
x	x		x			
x	x			x		x
x		x	x		x	

The students can either join the required face to face tutorial (for some courses), and also join the free tutorial (not required), or web-based tutorial, or correspondence tutorials (any combination). The face-to face tutorial is required only for less than 50% of the total courses (i.e., 753 courses).

To participate in the E-learning programs offered by other universities, such as the four autonomous universities - UI, UGM, IPB, ITB, it is required for the students to own or to have access to computer and internet (Julaeha & Suparman, 1999).

A different approach is applied in the graduate programs in hospital and health management, which are conducted in-campus and off-campus. The programs begin with two weeks in campus orientation activities, which also are conducted repeatedly at the beginning of every semester. During the orientation, the students are given relevant information, learning materials, and also training on the use of the Internet. Then, students are given the opportunity to study independently for 5 months using all forms of learning materials and resources available to them. The assignments are sent through e-mail. Only those students who can answer correctly 75% or more of the assignments are allowed to take the end-semester exam. Some distance education programs offered by IPB, ITB, and UI are conducted more or less in the same manner (Julaeha & Suparman, 1999).

1.6. What media and technologies are used?

From 1984 up to 1997, in addition to relying on printed materials, UT also expanded its instructional materials in the form of radio and television broadcast. Thus it is now offering multi media instructional materials, instead of just correspondence/printed materials.

Universitas Indonesia is involved with the World Bank for the GDLN project, which makes extensive use of live videoconferencing technologies. UI is offering a Masters program in Economics (a form of MBA program) as their GDLN project at three sites: Jakarta, Denpasar (Universitas Udayana), and Riau (Universitas Pekanbaru). The three universities are having Wold Bank support to install all the required resources and infrastructure to support the program (including fiber optics for their LAN, VSAT for their

connectivity, etc.). They claim the program is being offered via the E-learning mode with limited face-to-face tutorials. However, the "E" component uses predominantly synchronous videoconference methods rather than asynchronous online study. Preparation is underway, but the program has not been officially opened for student intake.

The Institute of Technology in Bandung has long been initiating some innovation in e-learning. Their campus is wired by fiber optics. They also use VSAT for interconnectivity. In addition, there is Universitas Sumatera Utara that has been wired by fibre optics, the Institute of Technology in Surabaya and the Electrical Engineering Polytechnics in Surabaya are wired and have got some funding from JICA (a Japanese agency).

There are 9 universities that are connected by the ExHEP project, an Asian Development Bank funded project designed to provide the communication infrastructure based on the concept of a Virtual Campus Network that will interlink these 9 universities (Universitas Jambi, Universitas Bengkulu, Universitas Jenderal Soedirman Purwokerto, Universitas Jember, Universitas Nusa Cendana Kupang, Universitas Mataram, Universitas Tadulako Palu, Universitas HaluOleo Kendari, Universitas Cenderawasih Jayapura, Institut Teknologi Sepuluh November Surabaya). Up to the present, those universities are still developing their infrastructure, and they have been able to do a teleconference once in a while. However, they have not gone to a full program of E-learning yet.

In addition to all of those universities and project initiations, of course there is UT. As a matter of fact, technology has always been an integrated element within the UT system, because it basically mediates the separation between teacher and learner through the use of print, radio, telephone, television, audio and video tapes, and (more recently) computers. The computer connection has been growing more important due to the speed of development of ICT, which offers growing range and accessibility, lower cost, ease of use, and expanding pedagogical power (Bates, 1995).

Since 1997 UT utilizes ICT to provide web-based information services for general academic and administrative information purposes, such as program catalogues, as well as regulations about registration and credit transfer. In the subsequent years, the service has been expanded to include on-line publication of research reports of the UT academic staff, dissemination of information on Indonesia (1998), announcement of examination results and distribution of course supplementary materials (1998), and distribution of take-home examination sets (2000). In 1999 the development of tutorial services (tutorial online) through internet and fax-internet were also started, based on the assumption that the fax-internet services could significantly extend the students' access to UT's services (Hardhono & Belawati, 1999).

In 2000, it was found that students' response toward the use of ICT is still far from expectation. There were only 15,000 hits to UT's web site per day - most of these were students of the School Management residing in Jakarta and urban cities, and the least frequent were students of the School of Education (reported by UT's Multimedia Research Center, 2000).

In 2001, the result of a trial run of online tutorials also indicated a discouraging profile. It showed that from the 40 courses offered only 28 (70%) are accessed by the students, with very low interaction between tutors and students: tutor to students 1 - 2 interactions, and students to tutor 1 - 4 interactions (Anggoro et al, 2001). The reasons stated by students for not sending email, are: (1) they feel embarrassed since they do not master the content of the course; (2) they do not know how to send e-mail; (3) the courses where online tutorials are offered are not the ones they are registered for; (4) they do not know the email address of their tutor (Anggoro, et al, 2001).

Some of the latest developments on web-based courses in UT are UT-Online consisting of online lectures, online counselling and online lecture-on-video. UT-Online was launched on September 10, 2002. Online lecture is a trial run project of 5 selected UT courses, which are converted into web-based courses. UT-Online can be accessed through any access points including the widely distributed Internet kiosks, to extend access points to UT's students in remote areas. For this purpose UT has made an agreement with 2616 Internet kiosks. The service is made available in 6 cities: Jakarta, Medan, Makasar, Surabaya, Semarang dan Bandung. UT students who reside in those cities can get a reduced rate of 50% if they access UT-Online from the appointed Internet kiosks.

In addition, as a service to other higher education institutions, UT launched the PAU-Online project, supported by SUN Microsystems. PAU-Online provides an in-service training program for lecturers in higher education in the area of development of instructional skills and content-pedagogical skills mediated through the Internet. PAU-Online was developed from October 2001 to May 2002, and the trial run was set to start in September 2002.

In Indonesia, the development of, and utilization of, ICT is expected to support the growth of a knowledge-based Indonesian society, to be competitive in the knowledge era. The government of Indonesia (GOI) has declared the national policy on ICT with a vision to establish a knowledge-based Masyarakat Telematika Nusantara (Indonesian Telematics Society) by the year 2020 and issued a Presidential Instruction on Implementation of Telematika (Inpres no 6/2001).

The development of ICTs in higher education institutions is related to the development of a national ICT infrastructure. At present there are 9,000,000 fixed telephone lines (home access, offices, and public telephone kiosks) in Indonesia, but about 72% of this provision is concentrated in Java Island. Besides, there are 7 providers with 6,000,000 subscribers of cellular phones. Furthermore, in terms of Internet services and use, there are about 38 Internet services providers (ISPs), 600,000 Internet subscribers, and 2 million Internet users, who can access the Internet from about 2500 Internet kiosks, and 220,000 telecommunication kiosks (Wartel).

There are new technologies becoming available that allow the telecommunication services which are offered by the kiosks to be expanded by distributing the telephone line to a group of individual houses around the kiosk, as far as 12 kilometres. One telecommunication kiosk can serve 15-226 households. The kiosk can help the national telecommunication services to increase the tele-density (the level of telephone service penetration per capita) from 3.3% to 5.12%. In addition there are some educationally-relevant telecommunication services available via regular telephone lines, such as audio conferencing (PERMATA), video broadcasting, and video conferencing ISDN (Integrated Services Digital Network). However, up to this point, these services are available only in big cities, especially in Java.

Recently, the government has deregulated the monopoly of telecommunication services to allow private businesses to operate telephone services, which for a long time has been monopolized by the National Telephone Company (PT Telkom and INDOSAT). The deregulation effort is aimed at the provision of an affordable and accessible variety of telecommunication services, such as audio / video teleconference and data (text, numbers, pictures, graphics, audio and video) exchange. This should in theory accelerate the process of adoption of E-learning. There are, however, many problems that have to be faced in the HE sector, related to a variety of factors: software, hardware, infrastructure, HR, and culture of the academicians.

Software. It is very expensive to use licenced software in any level - macro and micro design, back office as well as front office (user interface). So, some computer techies are aiming at LINUX and free openource softwares. However, these softwares are very fragile, and if we do not have ICT students who work 24 hours in developing and maintaining the systems, then the security of the programs can be in trouble.

Hardware. The life cycle of ICT hardware right now is (at the most) three years. While the development process is still underway, the hardware has already become obsolete. If we have to change the hardware that frequently, then we are talking about very expensive matters.

Infrastructure. Fiber optics is nice, but we cannot use it when we talk about "across the sea" global communication and linkages. VSAT must be used. However, VSAT is rather expensive.

Human Resources. The human factor is the most important element required for building effective E-learning systems and environments in Indonesia. Human resources (computer technicians, operators, supervisors, designers, etc.) are very rare in Indonesia, and the supply is not enough to answer the needs. Access to education in various knowledge areas and skills of E-learning is highly essential.

Academic Culture. Emerging new roles and responsibilities of faculty members in preparing, maintaining, and carrying out the virtual instructional process, while keeping up with the present responsibilities of the existing system, is a tough challenge for academicians. The virtual culture needs to be acquired by each faculty member, which means reliable preplanning of new project activities, timely schedules, "virtual thinking" (versus concrete, spacious and lateral thinking), computer and net "literacy", and the use of computers and networks in everyday life. Credibility, transparent systems, accountability, and integrity are some of the common indicators of the virtual culture that must be fostered in the minds of faculty members. Computer and Internet literacy are paramount for changing the mindset and building the required skills of academicians. Nevertheless, there are senior faculty who are "allergic to the new gadgets" and have negative perceptions of these gadgets. Many are unsure if the new gadgets will replace their scientific authority and classroom authority, or feel the use of ICT as simply the creation of an additional burden and increased workload. Meanwhile, effective and reliable connectivity and facilities to encourage their use are still very rare in HE institutions (or expensive if available).

In addition, students must also be prepared to prove themselves in the virtual world. New kinds of interaction are expected, computer literacy is a must, and autonomous learning is a prerequisite. Past values, beliefs, and assumptions about student learning behaviour and tradition are challenged. Learning cannot derive from the presentation of a stack of learning materials delivered online. Learning is not just the result of the memorization of concepts, theorems and rules of any subject matter, and the result of learning process does not mean merely a course grade and / or a certificate.

2. Policy and Regulations of DE

2.1. Institutional level

UT is public university. Thus, it has a ministerial decree for its establishment, under the Directorate General of Higher Education. Other public universities are the same. The private universities - and also the 4 autonomous public universities - are regulated by other legislation (not under the DGHE).

Some universities were, until recently, practicing the so-called remote classroom (equivalent to extended campus or off campus classes). They sent their faculty members to other geographical locations in order for them to conduct instructional programs (or classes) at those sites. The sites are sometimes relatively far from the main campus, thus they scheduled the classes to meet at a certain block of time (weekends, one week per month, etc.). That way they were really carrying out academic activities that were out of line with the "academic requirement" of any learning process in higher education in Indonesia (they cramped all the classes altogether into specific blocks of time during the semester).

In order to avoid this, the Government of Indonesia drafted a regulation on the implementation of distance education systems in higher education. The regulation was drafted based on UT's components and delivery system. It took the DGHE four years to finalize the Minister's decree on distance education in higher education (107/U/2001). The resultant legislation is seen by many of UT's new competitors as the government's protection for UT. The decree mentions that conventional campus-based universities wanting to set up distance education should base their delivery on the use of computers and the Internet (net-based, and ICT based). In this way, the use of more traditional DE media and methodologies (still in many cases the only available ones) is restricted to UT.

At the national level, the government of Indonesia has established several national committees and provided funding for the development of ICT in the country. The initiative was started in 1998 when the first committee was working on developing the Nusantara 21 concept. The Nusantara 21 concept was later used as a reference by the National Coordinating Team for Telematics set up by the Indonesian President. In 2001, the President of Indonesia issued a decree on "telematics" - the use of ICT in several areas in Indonesia, i.e., e-business, e-democracy, e-government, e-education, e-industry (no.6/2001). This decree was then implemented by a newly-established Ministry of Information and Communication, that is now following up the operationalization of the decree.

In 2001, the DGHE also issued a decree on Distance Education. The content of this decree is modelled after the operation of Universitas Terbuka. It states that other universities who want to participate in distance education (single as well as dual mode), have to utilize computer-based or web-based distance education (not the traditional correspondence forms). It is not surprising that the decree is perceived as protection toward UT, but, on the other hand, it can also be a boost toward E-learning in Higher Education in Indonesia. For the implementation of that decree, UT serves as a kind of accrediting body.

The government's regulation policies are not without their opponents, especially among the staff of conventional universities that feel they are being prevented from competing on an equal footing, yet are expected to be financially "autonomous".

One example of such opposition was presented recently by Idris (2002):

"...governments in DCs (Developing Countries) tend to control education tightly. In some DCs like Indonesia, not only teachers but university and college faculty members of state universities are employed as public servants and until the fall of Suharto's regime in 1998, all public servants were required to vote for the government party, Golkar. Being public servants, teachers and faculty are therefore also subjected to a lot of other rules and regulations. What to teach, how to teach, when to teach, what books and materials to use and so on are all prescribed by the government.

... Centralized control is the norm and consequently devolution and empowerment are disallowed, at a time when empowerment has been shown to be a basic requirement for creativity and innovation, which in turn have also been shown to be necessary in educational development.

...In line with that political philosophy comes the equally debilitating education methodology. In such an environment a top-down, often one-way teaching communication and teacher all-knowing situation is the only allowed methodology. This has to change if progress is to occur in DCs, and more appropriately for the topic in hand, has to happen if Open Learning is to happen.

...Given the political control alluded to above, it is also logical that Open Learning in these countries is tightly controlled. In Indonesia, for example, open learning could only be offered by and therefore taken at, the Open University (Universitas Terbuka). The situation for a centralized government in such countries is challenged by the rapid and pervasive use of new information and communication technology, such as e-mail and the Internet. The Universitas Terbuka became irrelevant, inappropriate and a white elephant following the fall of Suharto and recent brave moves by the current Minister of National Education with his Ministerial Decree No.184/2001. This Decree rescinded many previous decrees and decisions and as a result opened up possibilities for good, responsive and affordable as well as effective Open Learning in the country.

...There is no doubt that Universitas Terbuka will need a complete overhaul in all areas, from learning methodology to curriculum to technology to its marketing to the support at a distance to the upgrading and education of its own faculty members. Newer Open Learning providers would perhaps have fewer problems than Universitas Terbuka."

2.2. Program Level

For a program to be opened, an academic proposal must be submitted to DGHE for review. DGHE can then consider the opening of a program. The university, is then to submit the academic papers of the program, which consist of: a needs analysis and feasibility study; a description of the program and its curriculum; the delivery system; the evaluation system; the human resources; the program structure and infrastructure; Quality Assurance (QA) and Quality Control (QC) plans; and, finally but importantly, a sustainability plan.

This regulation holds true across all higher education programs. An extra criterion for DE programs is "massive education". A program that is considered as addressing a need for "massive education", due to exceptionally large and unaddressed demands and needs in the job market, is allowed to be a DE program. However, programs that address specialist needs exclusively (the country does not need massive numbers of graduates in the area), are generally not allowed to be a DE program.

A report of each study program has to be submitted every semester to DGHE (online submission). A study program that has a decreasing number of students may be closed. The QA and QC mechanism is checked against the proposed plan in the academic documents.

2.3. Course design, implementation, and evaluation

Thus far, there is no specific regulation regarding this issue from the government (DGHE). Internal regulation for UT does exist: outsourcing in course design and development, outsourcing for tutorials, decentralized tutorials, and centralized examinations. Networking with schools, regional government, and local universities are done to provide access to special needs for laboratories, practice and supervisors.

Student achievement is evaluated mostly by objective tests, conducted once every semester. In addition, students are given individual assignments (these can be objective and / or essay type). For laboratory and practice work, they are given specific assignments to be carried out based on written procedures provided by UT. At the end of their study program, they have to do field research, field practice, and / or comprehensive exams.

3. Funding of D.E.

3.1. National and Institutional levels.

Public higher education institutions in Indonesia, including dedicated DE institutions like UT, are funded by the Government, except for the four universities who are already "autonomized" by the Government. These are: Universitas Indonesia, Institute of Technology, Bandung, Institute of Agriculture, Bogor, Universitas Gajah Mada. Except for the 4 universities who have been "autonomized", there is no different funding scheme or allocation applied by the government toward distance education, as compared to conventional universities. These four universities, although expected to be self-financing, may apply for government funding based on the quality (and quantity) of their graduates. For these four universities, government subsidy for operation cost is based on the number of full time equivalent (FTE) students, i.e., they will receive subsidy based on the number of graduates that they can produce.

Other universities receive a subsidy from the government based on the feasibility of their programs (in regard to their strategic plans). FTE registration has not become a general consideration for university funding by the government. Routine public budget is for faculty members and staff salary, structure and

infrastructure maintenance. Development budget is for innovative and developmental program prioritized by the university (in regard to their strategic plan). The tuition fee gathered from the students then will be returned to students (by the universities) in the form of educational services. Thus, most universities do not receive subsidy from the government that is calculated on the basis of the number of their students, but rather, they are awarded funds because of the (quality and) appropriateness of their program and strategic plan. The tuition fees from students are collected, managed and allocated by universities to enable them to carry out the operational tasks of their academic programs.

Each university is welcome to work with foreign funding agencies, as long as they report this to the DGHE. Funding for initiation of DE is usually obtained through funded projects (from foreign funding agencies). UT was funded by the World Bank, CIDA, IDRC, and also the British Council. ITB's initiation is funded by JICA and also IDRC. Since the economic crisis in 1997, the chief funding agency for higher education is World Bank and JICA. IDRC still provides funding for research effort, also ADB through a science education project. Most of the funding is based on G to G agreement, not G to I or I to I agreement.

Some of the DE initiation projects have been funded by the Indonesian government itself, using development money, but not routine money, added to the institution's annual budget. As central funding is concerned, no distinction is made between distance education and conventional education, as a general rule. However, there are some special aspects of funding policy that seek to avoid the waste of resources. For example, UT is not allowed to apply for big facilities (e.g. laboratories) to be placed in its 33 regional centers, but is encouraged to negotiate for the use of existing facilities at the local universities.

3.2. Individual program or project level.

Grants or loans from any funding agencies must go through the Government, i.e., Directorate General of Higher Education for approval and submission to the National Planning Agency (blue book). Then the National Planning Agency makes decisions based on the country's priorities. Small grants for research (based on individual proposals) are also available directly from the agencies which have been acknowledged by the DGHE.

3.3. Individual course and student level.

Scholarships for students are available, from the Government as well as from private sectors. Student scholarships from the Government include the veteran scholarship. The private sectors include Toyota scholarships, Exxon Company scholarships, the National University of Singapore scholarships, the Toray Foundation scholarship, the Habibie Center scholarship, WWF and Greenpeace scholarships, etc. These scholarships may be applied for by students irrespective of whether their studies are conducted at a distance or in regular campus-based courses.

3.4. Course materials and logistics levels.

Up to now, the Government has provided subsidies for materials development (printed as well as non printed). However, it is decreasing now. Many private sectors are sponsoring such development efforts, i.e., Sempurna and Indofood for cultural materials (printed as well as non printed). UT uses most of the student's tuition fee for its development effort. Materials development is also partially funded by the Government through the Development budget. Grants in the form of teaching grants provide small opportunities for lecturers to develop instructional materials. Many foreign projects have a teaching grant as one of the project components.

In UT, 35% of funding comes from government (routine budget, development budget, etc.) and 65% from students' tuition fees. ITB obtains 70% government funding, and only 30% from students' tuition fees and auxiliary endeavors. UI had 40% government funding and 60% tuition fees, while UGM has 60% government funding and 40% tuition fees.

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