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Situational Analysis on e-Learning System for Multicultural Education in Southeast Asian Countries
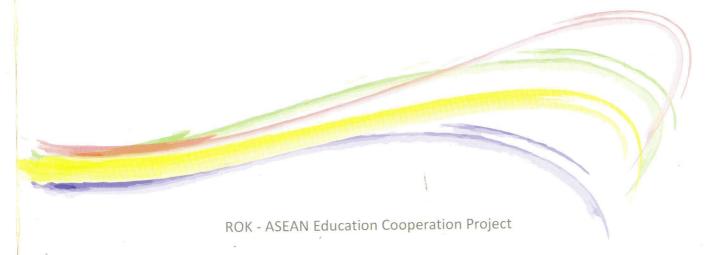
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Situational Analysis on e-Learning System for Multicultural Education in Southeast Asia

First Edition

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ROK - ASEAN Education Cooperation Project

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The research coordinators were responsible for carrying out the finalization of the report including the overview of the current situations and needs in Southeast Asian Countries, the comparative analysis across the countries, and the recommendation for policy based on the analysis of strengths, weaknesses, and obstacles, etc.

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Foreword

Southeast Asia poses to concerned educators both opportunities and difficulties in promoting multicultural education. The region's diversity in terms of ethnicity, language, religion, and social customs and values, as well as its rich cultural heritage make it a fertile ground for multicultural education. On the other hand, the complexities entailed by the rapid force of globalization can also provide a volatile hotbed for conflicts, reinforcing the need for multicultural education all the more in the region.

Despite the fact that multicultural education is very much needed in the region, it is unfortunate that there is a conspicuous dearth of educational materials on multicultural education concerning Southeast Asian countries. It is in this context that APCEIU (Asia-Pacific Centre of Education for International Understanding) took the initiative to develop such needed resources. In particular, recognizing the efficacy of the use of ICT in education and growing interest in ICT-based education in Southeast Asia, APCEIU embarked on this project to develop multimedia materials on multicultural education.

The initiative came at a timely juncture following the Joint Declaration at the ROK-ASEAN Summit in 2004 reaffirmed the cooperation between the Republic of Korea and ASEAN. Under the ROK-ASEAN Education Cooperation Project supported by the Korean Ministry of Education and Human Resources Development, APCEIU launched a three-year collaborative project (2007-2009) to develop multimedia educational materials for Southeast Asian teachers in cooperation with SEAMEO SEAMOLEC (SEAMEO Regional Open Learning Centre). As a regional centre mandated to promote a Culture of Peace through Education for International Understanding (EIU) in Asia and the Pacific region, APCEIU has been engaged in various endeavors aimed at fulfilling its mission since its inception. Multicultural/intercultural education has been one of the critical sub-themes of EIU that APCEIU has been actively promoting. Meanwhile, established in 1997 as the 15th Centre of SEAMEO (Southeast Asian Ministers of Education), SEAMEO SEAMOLEC has been involved in

numerous activities promoting the use and integration of ICT in education. Mobilizing the expertise of both organizations, the project is expected to meet the need for resources on multicultural education in the form of multimedia materials designed for the region.

Situational Analysis on e-Learning System for Multicultural Education in Southeast Asian Countries is the first part of the three-year project, "APCEIU-SEAMEO Multimedia Material Development for Multicultural Education." The insights and implications drawn from *Situational Analysis* will go towards developing multimedia materials for multicultural education in 2008. It will then be followed by the development of supplementary teaching resources, which will be utilized for a series of training workshops. We expect this *Situational Analysis* to be able to yield useful input for developing multimedia materials on multicultural education for Southeast Asia.

We would like to extend our heartfelt appreciation to our colleagues at APCEIU and SEAMEO SEAMOLEC, our research coordinators, Prof. SUKAMTO and Prof. Insook LEE, and all the national coordinators for their hard work and support in compiling *Situational Analysis*, which lays the groundwork for the three-year project on developing multimedia materials on multicultural education.

December 2007

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Acknowledgments

Current Situation on
e-Learning System
for Multicultural Education
in Southeast Asia

The final report of *Current Situation on e-Learning System for Multicultural Education in Southeast Asia* is compiled from written national country reports submitted by nine (9) national coordinators. The nine (9) countries are (in alphabetical order) Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand, and Vietnam, representing the existing eleven (11) Southeast Asian countries.

A.   Overview of Educational Systems in Southeast Asian Countries

There are some keywords characterizing the similarities in the educational backgrounds of Southeast Asian countries in this first decade of the 21st century: change, innovation, and improvement. Although expressed in different formulation and levels of policy, all countries seem to undergo significant changes as stipulated in their respective missions, legislations and laws, and policy guidelines. Awareness toward the role and functioning of a society encompassing local, national, and even global interdependence propells these countries to make significant changes in their educational establishment and the execution of their national missions in the form of operational actions. Another striking similarity and yet appropriately chosen priority is the overriding concerns for primary and secondary education, with different emphasis in terms of shifting from quantity to quality, efficiency through flexibility and choices, quality control mechanisms, and the ways the country organize all supports (including ICT and other educational resources) to facilitate a comprehensive development of the students into their fullest potentials as future citizen of a fast-evolving and challenging world.

The differences in educational emphasis were noted in relation to the contextual characteristics of each country, as depicted in the following Table 2.

Table 2
Educational Emphasis in Southeast Asian countries

Country	Emphasis
Brunei Darussalam	The vision of Brunei Darussalam education system is to foster educational quality for the nation's development, peacefulness and prosperity; with the stated mission of providing holistic education to achieve fullest potential for all. One striking characteristic of Brunei educational system is that it provides free education for its citizen at all levels, from primary through higher education system.
Cambodia	Three policy pillars of education: 1. equity in educational opportunity, 2. improvement of educational quality and efficiency, and 3. capacity building for decentralized policy making and implementation, including clearly defined authority, responsibility and public accountability.
Indonesia	Strategic planning in Indonesia has been centered on three important issues, namely : 1. improving equality of educational opportunity, 2. educational quality standards and quality control, and 3. enhancement of quality educational personnel. All of these are pursued with noted emphasis on 9-years of compulsory basic education to be completely achieved by 2009. A high agenda in Indonesian educational system also has been the decentralization policy, with educational budgeting dominating educational politics in almost all regional areas.
Lao PDR	Educational development aims to foster well-rounded individual citizens with fully developed intellectual, spiritual, moral and physical capacities to contribute to the construction of the nation, including law abiding citizen who adhere to the harmony and peaceful co-existence among the ethnic minorities. This means to enhance mutual understanding and accept other's cultures and beliefs without prejudice.

Country Report

Indonesia

INDONESIA

General Background

About Culture

Human beings are social creatures (Aronson, 1972). They mature, work, play, and generally live out their span as members of groups; and as countless studies in social psychology have shown, the groups that individuals belong to greatly affect their attitudes, values, perception of the world, and ultimately the person's very sense of identity, of who they are (Stephen Bochner, 1982).

According to Stephen Bochner (1982), two features of social life greatly complicate the relationship between the individual and group. The first is that individuals usually belong to more than one group. The main groups that most persons belong to are the *family/families*; the *work*, occupational or professional group; recreational groups such as sporting club, bridge-playing companions, regular drinkers in a pub, stamp-collecting associations, and all the many leisure activities that people carry out in the company of others with similar interests; groups that provide a setting for spiritual activities such as *worship* and prayer; *artistic* groups for the expression of the self; and *political* groups (political parties, trade unions, pressure groups) enabling a person to influence events and exercise power. A problem arises when the person belongs to groups that place contradictory on the individual.

The second noteworthy feature of human beings as social animals is that groups tend to be hierarchically organized, rather like Chinese boxes (Stephen Bochner, 1982). The Scots provided a good example of this principle. A person belongs to a family , which in turn belongs to a clan, which in turn belongs to a region, which is either in the Highlands or the Lowlands, which together form Scotland, which is part of Great Britain. The individual's identity partakes variously in all of these groupings, depending on which is salient at the time (Bochner and Perks, 1971). But

the matter does not rest there; the Scot in the example could just as easily have been shown to belong to a local sailing club, the Scottish Sailing Association, and the World Yachting Federation; or as the local general practitioner with links to ever-wider bodies of medical and scientific societies.

About Information and Communication Technology (ICT)

Information technology has been used in teaching, learning and assessment for many years, from programmed learning and on-line tutorials, which are teaching-centered, at one end of the spectrum, to computer-supported collaborative environments, which are learning-centered. A number of specifications and standards are starting to emerge around e-learning. For example, relating to the Communication Interface: how resources communicate with other systems or meta-data; how to describe e-learning resources in a consistent manner and packaging; and how to gather resources into useful bundles (Uden & Beaumont, 2006).

About Indonesia

Demographically, Indonesia has around 240 million people scatter in 17 thousand islands. As a growing country, not all places are equipped with high-tech infrastructure. Some places even do not have electricity at all. Nevertheless, the Government of Indonesia (GOI) pays high attention to education. GOI has created national-standard in every aspect of education, i.e., standard of content, process, graduate competency, teachers and educators, structure and infrastructure, management, and educational evaluation. Through these standards, GOI expects that the quality of education can be assured, and it will be improving from year to year. Nevertheless, problems in the area of education are still emerging, and have to be faced by GOI. This is mainly due to the fact that education in Indonesia is about education of more than 50 million students in 300 thousands school, with about 3 million teachers (Nandika, 2007). In addition, the situation is substantiated by the geographical situation of Indonesia – a blessing of the richness of ethnics and cultures across a

wide – archipelagic - geographical area, a constraint due to the unbalance distribution, unreachable areas.

Locally, mobility of people and students across geographical area in Indonesia is relatively high nowadays. This has proven to create social as well as economical problems. Globally, Indonesia has always been of interest of many people across the globe, from tourism purposes up to business and political collaborations across nations. In many cases, this also has created some problems, mainly due to the lack of understanding of differences among people, ethnicity, as well as systems and regulations. Indonesian children in the modern era, especially, are exposed to these varied social structures, situations and cultures through their interaction in their home background, schools, neighborhood , media, etc. which further will have impact on their values.

Many scholars in Indonesia have asserted the importance of imparting knowledge on cultural differences as early as possible, mainly through education. They believe that through the understanding of the multiculturalism – the richness of differences of ethnicities, of faiths, of languages, of values, of ways of life, etc. – people will be more tolerant to differences, which leads to minimizing problems arise due to multiculture. This calling is in line with the vision of the National Education in Indonesia (National Education System Law, No. 20/2003), i.e., *"to bring into being the education system as a strong and respected social institution to empower all citizens of Indonesia to become enlightened human beings who are able to keep abreast of the challenges of the time"*. The vision is further elaborated through the missions, i.e.,

- To strive for the broadening and even distribution of opportunities for quality education for all Indonesian citizens;
- To assist and facilitate the development of their potentials, from early childhood throughout life, in order to bring into being a learning society;
- To improve quality education inputs and process to optimize the formation of moral character building;
- To enhance the professionalism and accountability of educational institutions as centers for acculturation of sciences, skills, experiences, attitudes, and values based on national and global standards; and
  To empower community participation in the provision of education,

based on the principles of autonomy in the context of the unity of the Republic of Indonesia.

Strategies charted to carry the educational development in Indonesia include:

- The implementation of religious education to foster morals and noble characters;
- The development and implementation of the competency-based curriculum;
- The teaching and learning process which is interactive and meaningful;
- The reinforcement of the national education system by educational evaluation, accreditation and certification;
- The enhancement of quality educational personnel;
- The provision of quality educational facilities;
- The provision of educational funding based on principles of equality and equity;
- The provision of open education and equality in education;
- The implementation of compulsory basic education;
- The implementation of autonomous management of education;
- The empowerment of community roles; and
- The implementation of the monitoring activities in national education system.

The concepts and issue of multiculture is not explicitly stated in the mission of strategies of the national development in Indonesia. Nevertheless, it is embedded in the vision, and also in the empowerment of community roles in education.

School System

In Indonesia, the Ministry of National Education is responsible for the educational planning and administration for formal public schools. The school system in Indonesia is stated in the Act of National Education (Act of the Republic of Indonesia Number 20 Year 2003) on Chapter VI Streams, Levels and Types of Education. Educational streaming consists of formal education, non-formal education, and informal education, which can complement and enrich each other. However, for Islamic schools (MI/MTs/MA), the Ministry of Religious Affairs is the responsible agent for its planning and administration. Thus, there are two ministries responsible for different kinds of schooling system.

Formal education is education which is structured and has designated levels, encompassing primary education, secondary education, and higher education. Non-formal education is education outside formal education, which can be implemented structurally, or in tiers. Informal education means education carried out in the family and in community.

Levels of education consist of primary education, secondary education, and higher education. Primary education/basic education takes the form of Sekolah Dasar or SD (primary/elementary schools) and Madrasah Ibtidaiyah or MI (elementary schools with Islamic-based curriculum) or other school of the same level, and Sekolah Menengah Pertama or SMP (junior secondary/ junior high/ middle schools) and Madrasah Tsanawiyah orMTs (junior high school with Islamic-based curriculum), or other schools of the same level.

Secondary education comprises the general secondary school and vocational secondary schools. It takes the form of Sekolah Menengah Atas or SMA (senior secondary/high schools), Madrasah Aliyah or MA (high school with Islamic-based curriculum), Sekolah Menengah Kejuruan or SMK (vocational secondary education), and Madrasah Aliyah Kejuruan or MAK, or other schools of the same level.

Higher education is level of education after secondary education including diploma, undergraduate education, postgraduate education (Master and Doctoral), and specialized education organized by a tertiary education institution.

National Curriculum Guidelines

Curriculum policies in schools are also regulated under two ministries, i.e., the Ministry of National Education through its Curriculum Center, and also the Ministry of Religious Affair. Based on the National Decree on Educational Standard (19/2005), Indonesia does not employ any national curriculum anymore. With the authority provided to each educational institution to develop their own curriculum which is contextual to the local environment, but still maintains the academic standard of each subject matter, the GOI provides a guideline to develop a curriculum, and a standard of content and competency to indicate coverage (core curriculum) and competency to be achieved at the end of any educational segment. The Curriculum Center, under the Office for Educational Research and Development, Ministry of National Education, is responsible in planning and developing guidelines for formal public school curriculum, however, the Education Department under the Ministry of Religious Affairs is responsible for curriculum planning and development in MI/MTs/MA.

The National Curriculum within the framework, is requested to incorporate these elements and aspects:
- the enhancement of faith and piety;
- the enhancement of noble character;
- the enhancement of learner's potential, intellectual, and interests;
- the diversity of the region's potential and environment;
- demand for regional and national development;
- requirement of labor market;
- development in science, technology, and arts;
- religion;
- the dynamic of global development; and
- the national unity and nation's values.

The curriculums for primary and secondary education are expected to cover:
- religious education;
- civic education;
- language;
- mathematics;
- science;
- social science;
- art and culture;
- physical education and sports;
- skills/vocational; and
- local content.

The curriculum of higher education is expected to include:
- religious education;
- civic education;
- language.

Current Situation of e-Learning System in School Education

National Policy on ICT Education and e-Learning

ICT (including audio, video, and media based on computer features, internet) can really help many people including teachers and students around Indonesia. The government aware that new technology of ICT can be used in the educational field. Student, teachers and researchers can find many information and resources easily by using the ICT. The adoption of ICT into education has often been premised on the potential of new technological tools to revolutionize an "old" educational system. ICT can also accelerate national development efforts. Consequently, educators, policy makers, and researchers all seem to agree on the potential of ICT to have a significant and positive impact on education (Alexander, 1999).

In 1999, ICT was integrated to Vocational Secondary Schools (VSS) curriculum. Since then, ICT was treated as compulsory subjects across all skill comptetency programs. In 2001, School Internet Network (SIN) was set-up. The objective of SIN was to help Vocational Secondary School to access internet, particularly school which had no internet connection.

Also in 2001, the Presidential Decree on Telematics (Including e-education, involving all ministries) was issued. At the same year, Directorate General of Higher Education issued the strategy on ICT for higher education.

In 2006, 441 ICT centers were established in vocational and general high schools.

A lot more activities were conducted in relation to ICT in education such as mentioned by Yuheti 2003, Soekartawi, 2004, Gatot, Soekartawi and Prakoso, 2006; and Nandika, 2006, 2006a. Furthermore, Ministry of National Education has developed national education network called Jardiknas (backbone for national education). This network serves integrated educational services in provinces, cities, universities, and schools. In year 2006 National ICT Board has prioritize E-education as one of its flagship program (Nandika, 2007).

Degree and Types of ICT Education and e-Learning at Each School Level

The introduction of ICT to schools has been carried out sporadically, despite of the national policy and programs on ICT for education. This situation is due to several factors, such as availability of connection (broadband, ISP, etc.), acquisition of hardware (which depends on institutional and financial support), availability of software, and human-ware.

E-dukasi.net is one ICT based program which is developed by Center for Communication Technology for Education (Pustekom) to offer web-based materials for students of grade 7 to 12, and for vocational schools. Even still in simple forms, materials for certain subjects are completed with exercises and tests.

Some schools, e.g., Dharma Karya Elementary School, offer ICT course to its students in grade 1,2 and 3. The course starts with introduction of computer and its peripherals. The students are also introduced into some software which are available in computer. One skill that students learn is how to move picture from clipart into paint brush file.

A study was conducted by Seamolec (Lukman, 2007) to explore the use of ICT by UT's students. Universitas Terbuka is an Indonesian public university employing open and distance learning as its delivery system. One of its study programs is elementary school teachers education program. It is an in-service training for elementary school teacher who want to have S-1 certificate. Data were gathered from 3 UT regional centre , Padang, Palembang, and Semarang. The number of respondents in each region are Semarang = 110, Palembang = 19, Padang = 100. The results of the study indicated that:

Table 1. Availablity of ICTs in Respondents' School

ICT	Semarang	Palembang	Padang
Telephone	27	5	12
Computer	23	2	11
Computer with Internet	5	1	5

Table 2. Frequencies in using Computer at School

	Never	1 – 2 hours	2 – 4 hours
Semarang	91	12	7
Palembang	16	3	-
Padang	85	14	1

Table 3. Frequencies in using Internet at School

	Every Day	Once a Week	Once a Month	Never
Semarang	1	4	14	62
Palembang	0	0	7	11
Padang	0	2	9	78

These information illustrated the very minimal level of ICT being used by teachers in their schools.

Degree and Types of ICT Education and e-Learning in Teacher Training at Each School Level

In 2006, a short course for 400 elementary school English teacher was conducted in distance learning mode (Diknas, 2006)). Type of ICT used was computer with internet connection. In the same year, government asked 10 universities to serve students teacher in dual mode. This is an in-service elementary school teacher who do not posses a S-1 qualification. Learning model employed is hybrid model which are: the use of printed materials, the use of audiovisual materials, the use of web-based course, and the use of face-to-face meeting, also residential and visiting tutors. In 2007, there are 23 universities involved in this in-service elementary school teacher.

At Universitas Terbuka (UT), students teacher for elementary school (S-1 PGSD) must take Computing and Learning's Media (IDIK4403) and students in Akta-IV (a program for those who already have S-1 certification but want to be a teacher) have to take Developing Course Materials (AKTA8831). These are compulsory courses. In IDIK4403, students should involve in e-tutorial activities by using internet, and e-mail. They will receive credit as a part of final grade.

From this study, students who took IDIK4403 had not enough access to ICT. However, students who took AKTA8831 had more accessibility in ICT. Students perception on the use of ICT was good (Lukman, 2007).

Multicultural Education in Indonesian Education System

Although multi culture is not explicitly stated in the Law of National Education System, it is an issue which is high on the agenda of every educators in Indonesia. The awareness and ability to accept and respect differences are still a growing in the menu of many educational practices. Semiawan (2003) stated that explicitly, the national education system has not yet been able to support the development of multicultural education. Thus, it is not surprising, that while it is high on the agenda, the practice is relatively rare and sporadic.

In Indonesia, elaboration on multi culture is needed primarily to fulfill national needs, to foster nationalism. Indonesia consist of so many ethnics that diversity of cultures need to be recognized by Indonesian. From history, differences had caused discrimination and segregation among Indonesian people, which further can be manipulated into colonialism by other nations. In October, 28, 1928, young generations of Indonesia from various different islands announced the Sumpah Pemuda. Sumpah Pemuda were statements declared these young generations who represented many different ethnics in Indonesia, stated that : 1. there is only one country, Indonesia; 2. there is only one nation, Indonesia; and 3.. there is only one language, Bahasa Indonesia. In the essence, it called for harmony and unity above the diversity existed in Indonesia across its geographical areas.

Multicultural Education within the Curriculum Framework

Multicultural education is materialized in the curriculum framework through several courses, i.e., history – where diversity of each province of Indonesia is introduced through its chronological developments, geography – where elaboration on the environmental and demographic factors of each province is being introduced. The underlying value of national unity across the diversity is also explored through those courses. Nevertheless, a special subject on multiculture is not developed, as the curriculum developers believe on integrating the multicultural issues to other subject areas in all levels of schooling.

Around 1990s and 2000s, multicultural issues have been introduced through an emerging approach in instruction, i.e., the Society, Education, Technology, and Science (SETS), and culture-based approach. SETS was introduced by Semiawan, then piloted by IKIP Semarang (then) or State University of Semarang. Culture-based approach was developed by DGHE to prepare teachers and teacher educators to integrate various local cultures (including in the metropolitan area) into the teaching of any subject matters.

Some teacher colleges, such as Universitas Pendidikan Ganesha, UPI, UM and the other 20 teacher colleges joining the HYLITE consortium, and UT, and Universitas Negeri Surabaya offer multicultural course as a part of their teacher training program (in-service as well as pre-service). In many cases, multi cultural course is implicitly offered by many schools and teacher colleges, with a limited scope to the various local cultures in Indonesia.

Practical Cases on Multicultural Education

In Aceh –after tsunami– multi cultural issues is introduced by SEAMOLEC to be implemented across subject matters in elementary schools. This implementation does not change the curriculum at all. What the teachers need to do is creatively integrate the idea of multi culture and local wisdom into their various different courses. This idea has been implemented for one year.

At Dharma Karya elementary school, students do extra curricular activities at the same time in the school. It is about activities in some religions which are embraced by the students. The activity is in Islamic Fasting Month. It is expected that students will respect each other and recognize that their friend have their own religion with different ways in doing praying.

National Policy on Teacher Education in General and on the Multicultural Education

The scope of multicultural education has not been defined formally in Indonesia. Multicultural education in practice at this moment is only limited into culture. It has not been expanded to multi-faith or multi-values. The three required topics in Indonesian higher education curriculum, i.e., religious education; civic education and language, have integrated multicultural aspects.

Recommendations to Further Enhance Multicultural Education through ICT and e-Learning

1. Schools have to be ready for ICT management
2. Teachers have to develop their competencies in using ICT for professional development and learning resources, and continuously improve their skills
3. School teachers need to be supplied with ICT-based multiculture course materials
4. Teachers need to think how to integrate the idea of multiculture across subject matters in the curriculum
5. Teacher colleges are expected to equip teachers with ICT skills and knowledge on multiculture through their curriculum, and put that knowledge into practice.

References

Alexander,T. (1999). *ICT in Education: Why Are We Interested? What is at Stake?* A Key Note Speech given at an International Conference on "Dissolving Boundaries:ICTs and Learning in the Information Age", in Dublin 4-5 May 1999.

Aronson, E. (1972). *The Social Animal*. W.H. Freeman: San Fransisco.

Bochner, S. (1982). *Cultures in Contact. Studies in Cross-Cultural Interaction*. Pergamon Press Ltd., Headington Hill Hall: England.

Bochner,S. and perks, R.W. (1971). National role evocation as a function of cross-national interaction. *Journal of Cross-Cultural Psychology, 2, p.157-164.*

Depdiknas (2006). *Laporan Capaian Kinerja Depdiknas Tahun 2006* (Performance Report of Indonesian Ministry of Education in 2006).

Gatot H. P, Soekartawi, B.P Prakoso (2006). Pemanfaatan ICT untuk Membangun Jejaring Pendidikan Nasional (Harnessing the Power of ICT for Developing the Indonesia Education ICT-Network). Paper presented in The National seminar on "With IT/ICT We Develop Nation : An Application of ICT Indonesia, 2006 at Sahid Hotel, Jakarta, on 30 November 2006.

Lukman, M, et.al. (2007). *Pemanfaatan Teknologi Informasi dan Komunikasi oleh Mahasiswa Universitas Terbuka*. Jakarta: Seameo Seamolec.

Nandika, D. (2006). *Why ICT?*. Presented in e-Learning Award 2006 at Sahid Hotel, Jakarta, on 19 December 2006.

Nandika, D. (2006a). *Some Notes on MoNe's Strategic Plan.* Paper presented to ADB's Mission at Ministry of National Education on 28 August 2006.

Nandika, D. (2007). *Integrating ICT for better Quality and Values of Education : Lesson from Indonesia*. Paper presented in 42nd SEAMEO COUNCIL CONFERENCE 13-15 March 2007, Nusa Dua, Bali, Indonesia.

Soekartawi (2004). Understanding Open and Distance Learning in Indonesia. *Journal for Vocational and Technical Education and Training* (Brunei Darussalam), December 2004, pp: 20-39.

Uden, L. & Beaumont,C. (2006). *Technology and Problem-Based Learning*. Information Science Publishing: London.

Yuhetty, Harina (2003). *ICT and Education in Indonesia*. Centre for Communcation and Information for Education (PUSTEKKOM), Ministry of National Education, Jakarta.