Capitalizing Open Education: The State of Practice in ASEAN Region

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EDITORS

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FOREWORD

Open education had become a buzzword in the past years. The discourses range from what the different open education practices or forms are available, what the results of various researches show, and how the affordances can be maximized to benefit diverse learners.

Among the avid advocates, practitioners, researchers of open education are those who are part of the Open University System. We can even say that open education is in their nucleus or part of their DNA system, which guides the conceptualization and implementation of their various programs and initiatives. Because of this, much had been written about it, presenting multiple perspectives, even evidence that will push forward and improve the practice, and yes, even theorize that will advance the field.

This publication is a gem by itself, considering that much of what has been published reflects contexts different from what we have in South East Asia. Written by South East Asian experts and reviewed by scholars also from the region, this book which consists of various chapters showcasing the unique position of open education in five South East Asian countries, will not only contribute to the current discourse on open education but will also showcase the state-of-the-art open education practice in this part of the world.

Personally, this publication holds a deeper meaning for beyond its content, this book represents the several years of collaboration among the five open universities in South East Asia to push forward the frontier of open and distance e-learning (ODeL) in the region and contribute to the same initiative globally.

MELINDA dP. BANDALARIA, Ph.D.
Chancellor
University of the Philippines Open University

PREFACE

Providing access to quality education has been the goal of every developing nation including those in the Southeast Asian Region. The open and distance education system is one of the education systems believed to open up access to the masses. The development of practice of open education has been accelerated by the advancement of technologies and the various global movements on open source software (OSS), open content, open license, and open educational resources (OER). These movements in technology-mediated education have given birth to the sharing paradigm within the educational communities. Educators have been inspired into creating and sharing educational materials as well as opening up their courses to the public and short courses with certification known as the Massive Open Online Courses (MOOCs).

Open universities are among the strong proponents of open education practices, including those in the Southeast Asian region, known as the ASEAN region due to the existence of the Association of Southeast Asian Nations (ASEAN). Five out of eight open universities in the ASEAN region, namely Universitas Terbuka (Indonesia), Open University Malaysia (OUM), University of the Philippines Open University (Philippines), Sukhothai Thammathirat Open University (Thailand), and Hanoi Open University (Vietnam), have been, for many years, collaborating in research and have formed an informal network called OU5 (meaning five open universities).

This book is written based on a two-year study conducted by the OU5 Research Network, which focused on reviewing the current policies, standards, and guidelines of the governments' ministries and commissions in higher education. Highlighted are the legislative acts of government reenacted into laws that influenced and enriched the current practice of open education. Likewise, it presents a perception study of various sectors (e.g., students, teachers, and employers) on open education and their insights on open universities' role in human resource development, social and political acceptability, and the future direction of open education through its open universities.

More and more academics have been inspired by the philosophy of openness, the affordances of distance education, and the approaches of e-learning.

It is therefore our utmost hope that this book will be of benefit to teachers, learners, and policymakers of academic institutions, both open and traditional universities, colleges, schools, and teaching and learning institutions.

April 2019,

Rector of Universitas Terbuka
Vice Chancellor/President of Open University Malaysia
Chancellor of University of the Philippines Open University
President of Sukhothai Thammathirat Open University
President of Hanoi Open University

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Tian Belawati & Thirumeni T Subramaniam

CHAPTER 1

THE NOTION OF OPEN EDUCATION

The concept of open education lies in the belief that education and knowledge are public goods, and that everyone has the right to access quality education. Open education, therefore, emphasizes the importance of system flexibility to minimize hindrances of access due to aspects related to place, time, economy, geography, and age. One of the education systems believed to accommodate such flexibilities is distance education. That is one of the reasons why, to some extent, people refer to open education as distance education, and within higher education, the nomenclature of "open" is literary adopted in the name of universities, such as the Open University (UK), Indonesia's Universitas Terbuka (means Open University), Open University of Hong Kong, University of the Philippines Open University, Allama Iqbal Open University, etc. The premise of open education is undeniably well received and adopted by the society; the people's commitment towards open education was formally declared in 2007 through The Cape Town Open Education Declaration. The declaration states the principles, strategies, and commitment of educators to conduct open dialogues, to inspire, and to facilitate further development and realization of open education.

The development of the practice of open education has been influenced and accelerated by the advancement of information and communications technology (ICT). On the other hand, it has also triggered other various global movements that are interdependent and supportive of each other's development. The global movements have made significant impacts on the realization of open education practices. These include movements on open source software (OSS), open content, open license, and open educational resources among others. *Open Content* is defined as "...content that is licensed in a manner that provides users with the right to make more kinds

of uses than those normally permitted under the law. These permissions are granted to users free of charge" (Opencontent.org, 2014). Open Content has further inspired many people and communities to start various initiatives taking advantage of free software and content on the Internet.

Within academic communities, these movements motivate many educators to create educational materials to enrich their classroom teaching, a term which would be referred to as learning object (LO), learning object material (LOM), and open courseware (OCW) in the mid-1990s. The mushrooming of initiatives and projects made by many individuals, institutions, and communities eventually stimulated the United Nations Educational, Scientific and Cultural Organization (UNESCO) to adopt the term Open Educational Resource (OER) in the forum called, *The Impact of Open Courseware for Higher Education in Developing Countrie*s held in 2002. In the 2012 Paris OER declaration, *OER*s are referred to as:

> teaching, learning, and research materials in any medium, **digital or otherwise**, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation, and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work (UNESCO, 2012)

The practice of "open education" has now gone beyond OER. Many providers are now offering a full range of open educational services. Among others is the "Massive Open Online Courses (MOOCs)" which have gained popularity and have attracted more than 100 million people to participate (Class Central, 2018). In fact, 20 million new learners signed up for at least one MOOC in 2018 alone.

In summary, the idealism of education and knowledge as public good, combined with the advancement in information and communication technologies, has developed and nurtured the sharing paradigm which would later give birth to the OER and MOOC phenomena. The notion of open education has been evolving both in concept and practice. Conceptually, it is no longer just a vision stated in any constitution to equalize and justify the educational system. Practically, it has evolved to embrace a range of formats from as simple as any little chunk of educational materials to a full set of courses and programs made available for the public.

The paradigm of sharing educational content and courses has spread throughout the world. The open movement has been accepted and adopted by all types of institutions globally, including those in the Association of Southeast Asian Nations (ASEAN) region. ASEAN hosts numerous distance, online, flexible educational institutions, including no less than eight open universities: Universitas Terbuka (Indonesia), Open University Malaysia (OUM), Wawasan Open University (Malaysia), Asia e-University (Malaysia), University of the Philippines Open University (Philippines), Sukhothai Thammathirat Open University (Thailand), Hanoi Open University (Vietnam), and Ho Chi Minh City Open University (HOU). As open universities, these universities embrace openness in their systems, programs, and initiatives. In line with the open movement, these universities are also involved in developing and deploying OERs and MOOCs.

The region is also composed of other countries not included in the research: Myanmar, Cambodia, Singapore, and Brunei Darussalam. Myanmar, with a population of around 52 million people, has 168 higher education institutions. There are two open universities in Myanmar: the Yangon University of Distance Education (YUDE), providing services to the regions in Lower Myanmar; and the Mandalay University of Distance Education (MUDE), providing services to the regions in Upper Myanmar. YUDE, previously known as the University of Distance Education (Yangon), was established by the government in 1992, and was renamed in 1998. MUDE was established in 1998. There are a total of 34 centers in these two universities. Meanwhile, Cambodia, with a population of 16 million people, has 189 higher education institutions, of which 34 are public higher education institutions. Open education options in Cambodia are limited to the initiatives by the Centre for Information Systems Training (CIST), a non-profit vocational training center. Laos, with less than half of the population of Cambodia, has very few universities, and no open universities. Singapore, on the other hand, with a population of above 5 million, has 5 public universities, 1 private university, and numerous foreign universities and institutes. The Singapore University of Social Sciences (formerly known as SIM University) is a publicly funded private institute that caters to the tertiary education and lifelong learning needs of working adults. The university was established in 2005; however, the SIM itself has been in operation since 1964. As a member of ASEAN countries with a very low population (around half a million people), Brunei has only 3 public universities, no open university, and limited e-learning initiatives by the University of Brunei Darussalam (UBD).

The existence of open education practices, specifically those practiced by the open universities, has significantly increased the people's access to higher education. Those eight open universities have, over the years, provided access to millions of people, and to more than 500 thousand students each year. This significant contribution of open education, as practiced by the open universities, has been acknowledged by both the governments and the society at large. Governments support and encourage the open universities to grow and play higher roles in increasing the human capacity of the region.

Despite the long history of open universities in the ASEAN region, there is a doubt whether the concept of open education is fully understood by all stakeholders, especially by the decision-makers. This is based on the observation that, besides those of the open universities, no other forms of open education practices have been well documented. It is therefore considered important to take note of the current practices of all forms of open education in the region. Hopefully, by knowing the current state of practice, ASEAN region can further capitalize on the potential of open education for its human capacity building.

This book is based on a two-year study conducted by the OU5 Research Network, which consists of Universitas Terbuka (Indonesia), Open University Malaysia (OUM), University of the Philippines Open University (Philippines), Sukhothai Thammathirat Open University (Thailand), and Hanoi Open University (Vietnam). The study focused on reviewing the current policies of the respected governments on open education and on surveying the stakeholders' (policymakers/government officers, heads of organization/ institutions, instructors, and students) knowledge, understanding, involvement, and expectations of open education. The objective of this book is to document the current state of open education policies and practices in the five countries involved.

REFERENCES

Class Central. (2018). *By the numbers: MOOCs in 2018.* Retrieved from https://www.class-central.com/report/ mooc-stats-2018/

UNESCO. (2012). *Paris OER declaration 2012*. Retrieved from https:// en.unesco.org/oer/paris-declaration

Opencontent.org. (2014). Retrieved from www.opencontent.org

The State of Open Education Practice in Indonesia

Tian Belawati & Kristanti Ambar Puspitasari

CHAPTER 2

BACKGROUND

Indonesia is the biggest archipelago in the world, with a population of more than 250 million people. Indonesia's education system is also the third-largest in the Asian region and the fourth largest in the world, with over 50 million students, 2.6 million teachers, and more than 250,000 schools (The World Bank, 2014). At the tertiary level, higher education is managed by the Ministry of Research, Technology, and Higher Education, and is provided by several types of institutions including universities, academies, polytechnics, and institutes, each focusing on different objectives of education. At present, there are over 4,200 higher education institutions (HEIs) in Indonesia, but only about 120 are government-owned.

Realizing the challenge of developing its ample human resources, Indonesia has adopted a distance education approach at both secondary and tertiary levels. The government of Indonesia's commitment to capitalizing on the use of distance education, using the use of information and communications technology (ICT), is stated in the National Education Law (UU no. 20/2003) and the Higher Education Law (UU no. 12/2012). Especially at the higher education level, the commitment is further elaborated in the National Higher Education Standards (Permendikbud no. 49/2014) and the Government Regulation on Higher Education Governance (PP no 4/2014). All laws and regulations in principle confirm and legalize the use of distance education, technology-enhanced education, and online education, as part of the national education system (Belawati & Bandalaria, 2019).

Susilo (2017) reported that in Indonesia, Universitas Terbuka (UT) is the first higher education institution mandated by the government to offer open and distance education at the tertiary level. For UT, open education is about

making higher education accessible to all. Established in 1984, UT has been providing open and distance higher education and lifelong learning programs, including massive open online courses *(*MOOCs), for Indonesian citizens and foreigners. The term "open" is implemented by accepting all prospective students, regardless of age, educational background, year of a high school diploma, registration period, regions, race, religion, etc. For ongoing students, there are no restrictions on the length of study, and the frequency of taking exams.

When it was established, UT was known as a correspondence university that relied fully on printed learning materials mailed to students. However, in line with the advancement in ICT, UT has transformed itself into a modern and ICT-based distance learning provider. Since 2013, UT has provided online tutorials for all courses to its students and has offered fully online study programs since 2015. At about the same time (2013), the Ministry of Higher Education (MoHE) in Indonesia has issued a regulation (Permendikbud No. 109/2013) that has given permission for regular campus-based universities to offer online courses and online study programs. Aside from offering degree programs, UT also offers several MOOCs and open educational resources ([OERs] - educational materials openly accessible to the public with Creative Commons licensing), such as web-based supplementary learning materials, TV lectures, radio lectures, open access e-journals, and open educational portal for teachers.

Since the emergence of MOOCs in the past few years, many educational institutions and organizations in Indonesia have also developed and offered MOOCs. The first MOOC in Indonesia was launched by Ciputra University in 2013, offering the University Ciputra Entrepreneur Online (UCEO) with specialization in entrepreneurship. In 2014, UT started to offer several MOOCs in various topics, such as Introduction to Distance Education, English for Children, and Food Processing as community services. In 2015, *IndonesiaX*, a private organization, launched several MOOCs by collaborating with lecturers and practitioners from prominent universities and corporations in Indonesia. In 2016, Universitas Gadjah Mada offered Fisipol UGM Open Online Courses (FOCUS) as MOOCs.

THE ROLE OF UNIVERSITAS TERBUKA

As mentioned earlier, UT, established in 1984, is a state-owned university, and the only university in Indonesia that exclusively uses open and distance education system. The mandate of the university is to make higher education more accessible to all citizens and to upgrade in-service school teachers' qualification up to full-teacher training degree (Bachelor). The university uses open and flexible distance learning system to allow its citizens to enroll without restrictions on age, citizenship, and duration of study. The only requirement is that students must have a high school certificate or its equivalent. With this system, UT has been able to reach a wide range of students and currently has about 300 thousand registered students. This has made UT the 7th biggest mega university in the world. This has also placed UT as the biggest contributor to Indonesia's 28% higher education participation rate.

Following the given mandate that later became the university's mission, UT carefully designs its instructional system and selects the most appropriate technology to use. Understanding the characteristics of the students and Indonesia's national IT infrastructure, UT purposively maintains the use of self-instructional and self-contained printed learning materials as the main learning medium. Nevertheless, all kinds of educational media are also being used to supplement and complement the learning process. As Internet penetration is getting better, UT also increases the use of online materials and student support services as parts of the official instructional system.

In the spirit of openness, UT always tries to design its learning and administrative system as open as possible. Students are given different alternative schemes of studying at UT depending on their own situations, preferences, and conveniences.

Figure 2.1 presents the open policies applied at UT. As shown, UT applies open admission and open registration policies, which, at the implementation level, are translated into: (1) no age limit; (2) no entrance test; and, (3) no study time limit/no dropout system, and multi entry–multi exit system. Specifically, prospective students also have the choice whether they want to register into a certain Study Program (e.g. Management, Business Administration, etc.) or just register for certain courses of their choice (e.g., Mathematics I, Foundation to Micro Economics, etc.). UT also accepts credits of students' prior learning from other higher education institutions or certified professional activities.

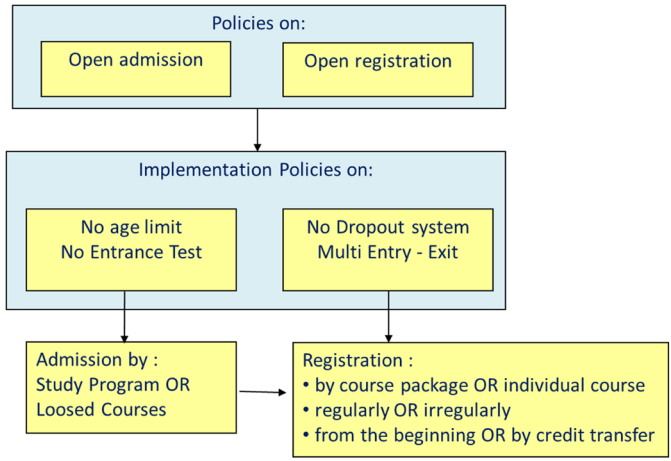


Figure 2.1. Open Policies of Universitas Terbuka.

In terms of the learning system, students also have some flexibilities. The learning system emphasizes student independent learning facilitated by various learning supports but mainly tutorials. Basically, there are three different learning schemes for students to choose:

- The first and the modest scheme is where students study independently (alone or in study groups) using the pre-produced learning materials that come as a multimedia package (printed books and audio/video programs). They may also access the online supplementary materials provided in the university's digital library through the UT learning portal. The online supplementary materials include those produced in-house and various OERs taken from other sources.

- The second scheme is the same as the first one but includes participation in free online tutorials facilitated by assigned online tutors. The online tutorials are similar to e-learning using a Moodle-based learning management system (LMS).

- The third scheme is also the same as the first but includes participation in face-to-face tutorials (eight meetings per semester except in some cases) organized in the regions by UT's 40 Regional Offices. However, in some courses of several academic programs, such as those in most Teacher Training Programs, face-to-face tutorials are compulsory.

Furthermore, laboratory works and field practical works, which are requirements in the courses, are also compulsory regardless of the learning scheme chosen. Moreover, online and face-to-face tutorials (four meetings per semester) are also obligatory in graduate programs. All students are required to take final exams to complete the courses and by default, exams are administered through pencil-and-paper tests. In addition, there is an online examination system which was first offered in 2006. It is designed to accommodate students who cannot attend the scheduled pencil-paper examination, need to retake exams for past courses, or have conflicting exam schedules.

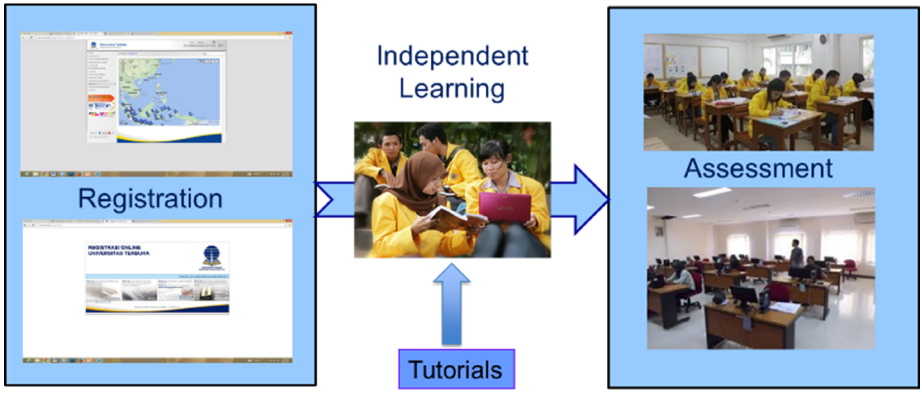


Figure 2.2. Flexible Learning System.

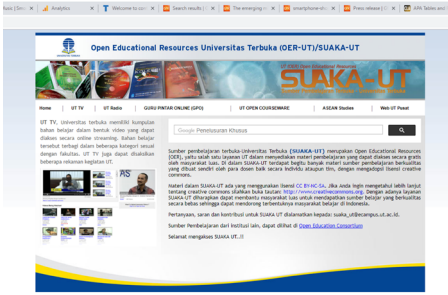
With this relatively open policy and system, UT was able to carry out its mission of making higher education open to all Indonesians regardless of their age, geographical situation, and socio-economic background. Data show that UT has been able to serve people throughout the country and has established itself as one of the mega universities. Data show that, in 2017, UT has an average of 287,292 students (Universitas Terbuka, 2018), who are spread throughout Indonesia and in 33 countries. In cumulative, UT has graduated 1,670,433 people since 1988. These numbers indicate that UT has been able to provide an opportunity to the masses and has contributed significantly (almost 4%) to the national higher education participation rate at 33.3% (7,249,903 students from a total of 4.607 higher education institutions including UT) (Kemenristekdikti, 2017; Kemenristekdikti, 2018).

In line with the open education movement, UT also started to offer several OERs (free learning materials to the public) and MOOCs. All UT's open learning materials and courses are offered through a website called SUAKA

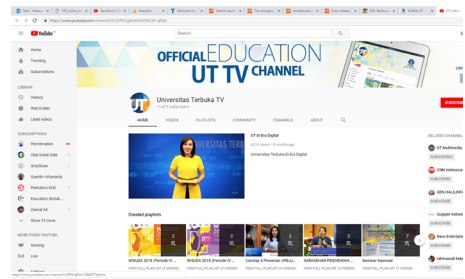
(http://www.ut.ac.id/OER/), which stands for "Sumber Pembelajaran Terbuka" or open educational resources. The website (Figure 2.3) includes open materials in forms of texts, videos, and simulations. SUAKA's content is divided into several categories, namely, UT TV, UT Radio, Guru Pintar Online (for teachers), UT OpenCourseware, and ASEAN Studies.

UT TV contains video-based OERs and consists of all broadcasted TV programs, either through the national television channel or YouTube. UT Radio contains broadcasted audio programs through the national radio station, as well as new audio programs. UT OpenCourseware (or Materi Pengayaan Berbasis Online) is the menu to access enrichment materials of all UT's courses and is available to the public for free. UT Open Courseware is designed in either HTML format, computer simulations, or interactive video programs. Finally, MOOCs are courses offered in massive open online courses model. All content in SUAKA uses open license of CC BY-NC-SA (Creative Commons license for free usage for non-commercial purposes and shared alike). As of November 2018, SUAKA UT has a total collection of 9,939 titles, consisting of 581 audio programs (UT Radio), 412 open courseware, 200 teacher education courseware, 1580 video programs (UT TV), 7,153 articles, 4 online journals, and 9 MOOCs.

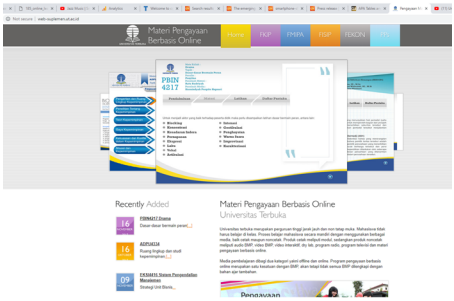
The availability of UT's open education products and services seems to be appreciated by the public. Data show that, although the participation in UT's MOOCs is not as high as expected, its completion rate of 16% (of over 6,000 participants) is much higher than MOOC completion rates reported elsewhere (Hewindati & Belawati, 2017). Furthermore, the Rector's Annual Report of 2017 states that the number of hits in the SUAKA portal reached 3,114,655 (Universitas Terbuka, 2018).



Cover page of SUAKA



Cover page of UT TV



Cover page of OERs

Cover page of MOOCs

Figure 2.3. Interface of SUAKA: UT TV, OERs, and MOOCs.

The above glance about UT and its contribution to the Indonesian human capacity building shows that open education is not something new in Indonesia. Through UT, people have been introduced to the notion of open education. The next section reveals that majority of the respondents understand what open education is, and they believe that open education is "a philosophy about education for all" and "an online education." Respondents of the survey, conducted in 2018, included policymakers (executives in the Ministry of Higher Education), Head of higher education institutions, instructors, as well as students. The survey was done using questionnaires that were distributed online and offline.

THE SURVEY RESULTS

a. Knowledge and Perception about Open Education

The first question asked was whether or not the respondents know what open education means. It is encouraging to see that the majority of the respondents in the three categories (head of the institution, instructors, and students) claimed that they know what open education is. As shown in Figure 2.4, 75% of Head of Institutions, 72% of instructors, and 84% of students who returned the questionnaires responded yes to the question. It is also interesting to note that the smallest percentage of respondents who said that they have no knowledge about distance education is from the student category.

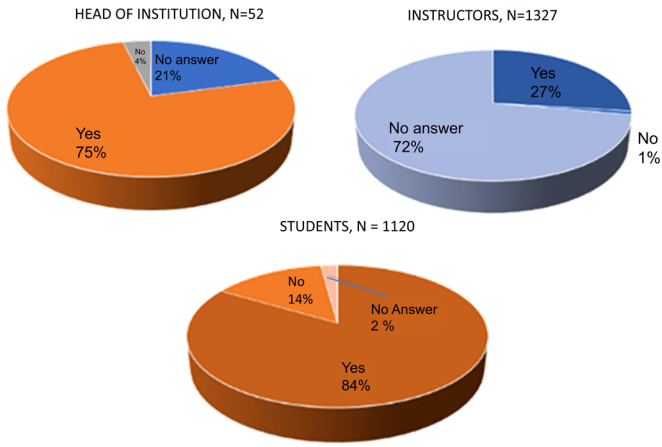


Figure 2.4. Knowledge about Open Education.

The next question was intended to see their perception about the meaning of the words “open education”. The question gave options of various meanings associated with the field of open education, and the respondents (those who answered “yes” to the first question) were asked to select the terms that describe their perceptions of “open education”. They were allowed to select multiple options which include:

- free education
- education with low cost
- beneficial for society

- government program for the people
- free software for education
- free books
- a philosophy about education for all
- non face-to-face education
- online education.

The responses were very interesting. All respondents selected "a philosophy about education for all" and "online education". This result shows that all respondents, regardless of whether they are heads of the institution, instructors, and students, believe that open education is about making education accessible to all. Although, the fact that many of them perceived open education as "online education" also shows that they might think that face-to-face education limits accessibility. Many heads of the institution and instructors also believe that open education is "beneficial to the society." Interestingly, but understandably, many students also believe that open education is "education with low cost" and think that it is a "government program for the people."

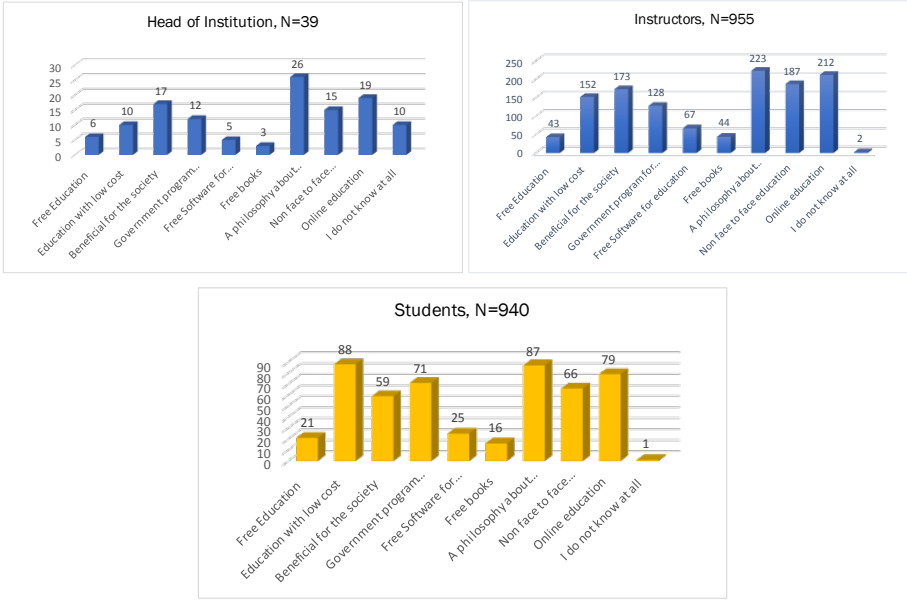


Figure 2.5. Perceptions about Open Education.

Further responses from the Head of Institution about their knowledge of the existing practice of open education in Indonesia reveal that 45% specifically thought of UT as the existing practice, and only 2% of them claimed to not know any open education practice in Indonesia (Figure 2.6). As a comparison, the majority of student respondents said that they did not know any open educational practices in Indonesia (86%), and only 14% mentioned UT as one that practices open education in Indonesia. These findings show that even after more than 30 years of existence, UT is still not widely known by student groups for its open education practice.

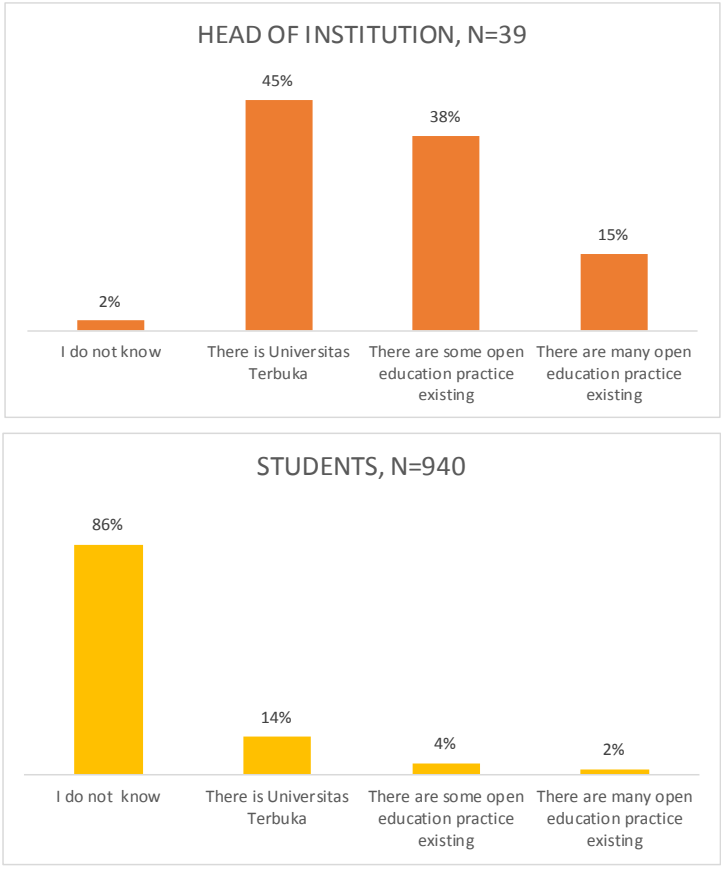


Figure 2.6. Knowledge of Open Education Practice in Indonesia.

b. Involvement in Open Education Program/Initiative

Responses of Head of Institutions

To capture the state of practice of open education in Indonesia, we asked the Heads of Institution whether or not their organization involves, develops, and/or offers some kind of open education initiative. Twenty-eight out of the 52 respondents classified as Heads of Institution (55%) claimed that their institutions are doing something related to open education practice, and 72% out of that 28 respondents are heads of higher education institutions (Figure 2.7).

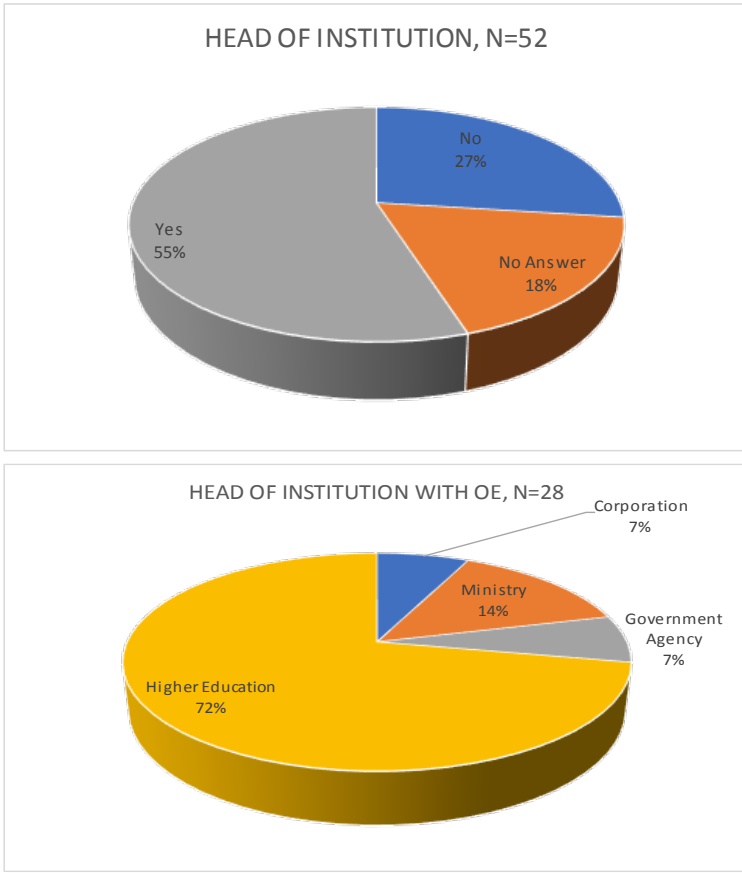


Figure 2.7. Head of Institutions with Open Education Practice.

When we look further, Figure 2.8 shows that 54% of those who claimed to do some open education practice said that they offered formal education, 18% offered non-formal education (15 respondents), and 18% offered informal education. Moreover, Figure 2.5 also shows that 71% of the 28 respondents who offer open education practice said that the nature of openness in their program implies "no entrance test" and "no time limit to study"; 57% said "no age limit"; 89% said "free," and, 64% said "no pre-requisite to enter". It is again important to note that respondents may select multiple options; hence, the total of those figures is not 100%.

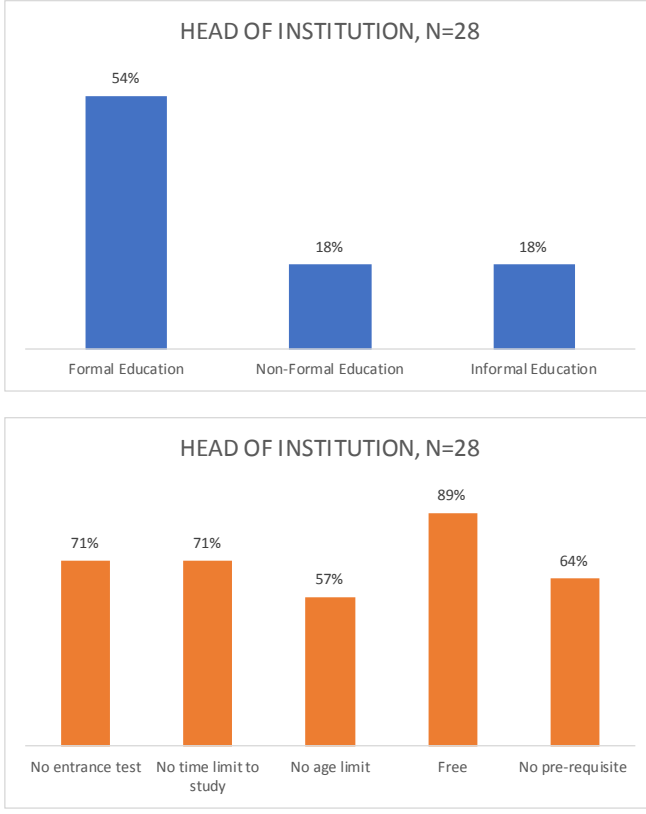


Figure 2.8. Type and Nature of Openness of the Open Education Practices.

The claim of the respondents that they offer formal education in their open education practices is interesting because Universitas Terbuka was the only higher education institution known to the public that offers formal open education. The nature of openness in respondents' open formal education

programs, as seen in Figure 2.9, claimed to include "no entrance test" (33%), "no time limit to study" 33%, "no age limit" (33%), "free" (13%), and "no prerequisite" (53%). Therefore, most respondents seem to offer the program with no pre-requisite in their open formal education programs (as claimed by 53% of respondents). Data show that those that offer formal open education programs are Ministry of Education and Culture (which is responsible for Primary and Secondary Education), HarukaEDU (a startup corporation), *SEAMOLEC* (a regional center for open learning of the Southeast Asia Ministry of Education Organization or SEAMEO), state higher education institutions (Universitas Terbuka, Universitas Diponegoro, Universitas Hasanudin, and Universitas Andalas), and private higher education institutions (Universitas Pelita Harapan, Institut Teknologi Sepuluh Nopember, and Universitas Singaperbangsa Karawang).

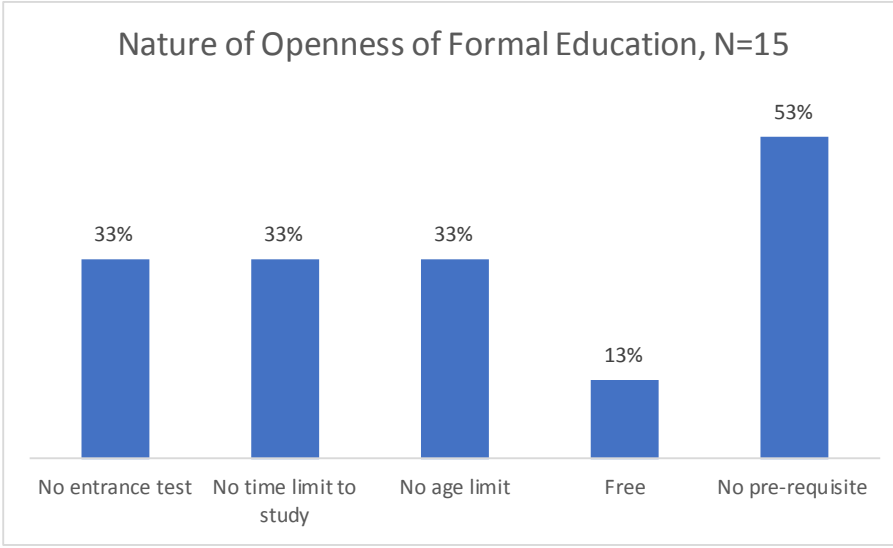


Figure 2.9. Nature of Openness of the Formal Open Education Practices.

We also asked the 28 respondents of Heads of Institution who claimed to have done open education for other initiatives regarding what they did besides offering open education programs (whether they are formal, non-formal, or informal). Figure 2.10 shows that 86% (24 respondents) said that they developed open learning content uploaded to the Internet, 50% of them said they offered MOOCs, and 43% of them said they also developed open software/applications distributed freely to the public.

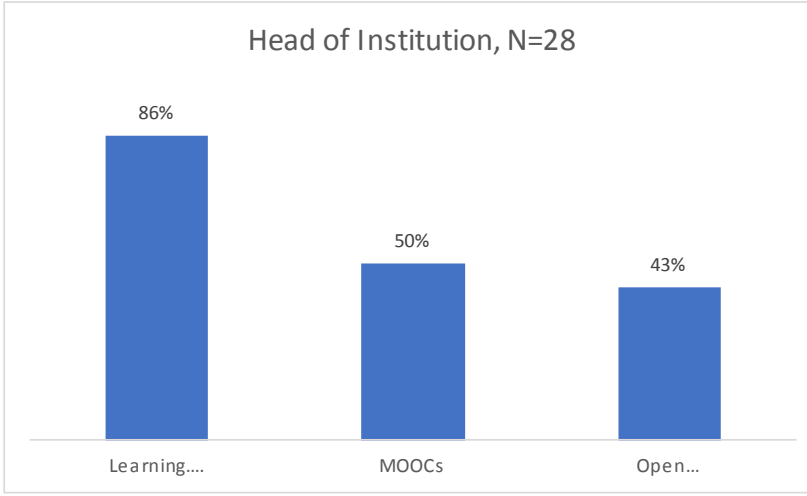


Figure 2.10. Other Practices of Open Education.

Responses of Instructors and Students

As for the instructors, we asked whether or not they know if their institution has ever been involved in or has initiated an open education initiative. The responses show that only 20% (268 instructor respondents) know, but the majority of respondents (72%) did not respond, and 8% of them even said that they did not know if their institution has ever been involved in or has initiated any open education practice (Figure 2.11). The figure also shows that from the 268 instructors who answered "yes," the majority of them (57%) are instructors working at UT, and the rest are from other institutions, while others were not mentioned. Those other institutions include Universitas Indonesia, Universitas Gadjah Mada, Universitas Airlangga, Universitas Sriwijaya, Universitas Bengkulu, Universitas Bina Nusantara, Pelita Harapan, Universitas Ciputra, Universitas Hamka, Institut Teknologi Sepuluh Nopember, and Politeknik Negeri Surabaya.

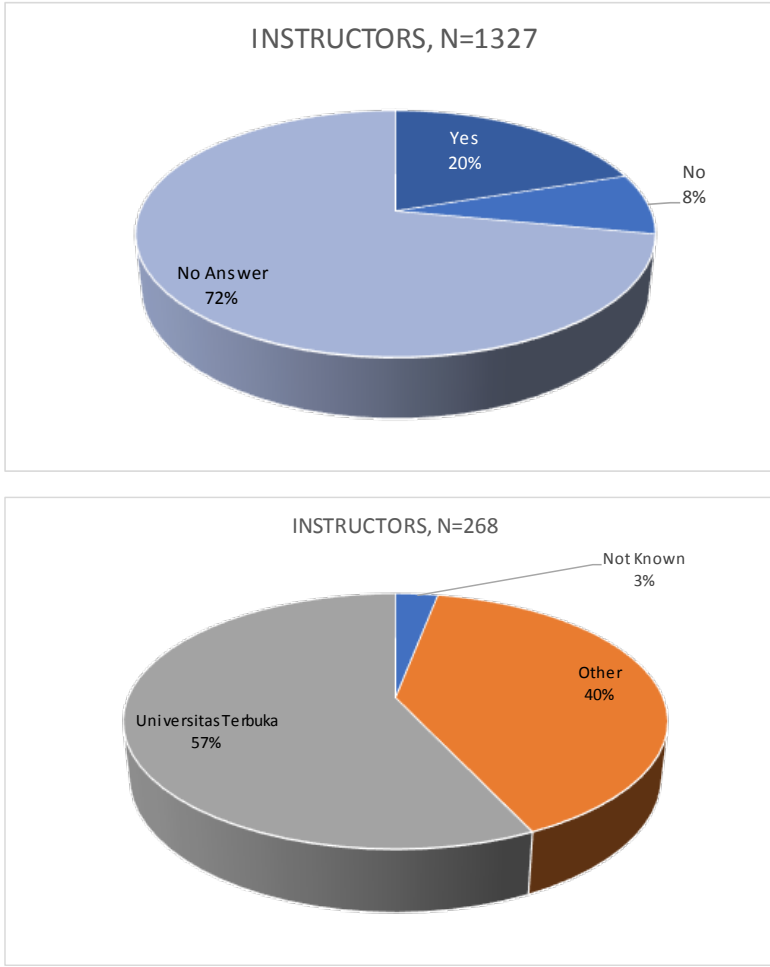


Figure 2.11. Instructors' Knowledge on Institution Involvement in Open Education.

We further asked the 20% of instructor respondents (268 people) who claimed that their institution is somehow practicing open education to specify the nature of openness in the practice, whether it follows (1) no entrance test, (2) no time limit to study, (3) no age limit, (4) free, or (5) no prerequisite. The responses are shown in Figure 2.12.

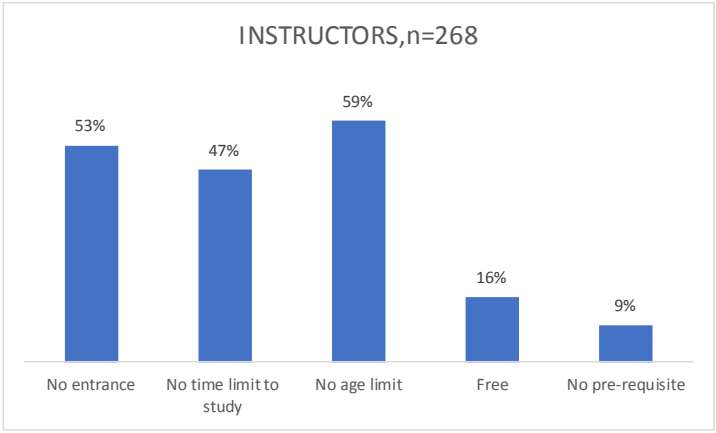


Figure 2.12. The Nature of Openness of Open Education Developed/ Offered by Institutions.

Figure 2.13 further shows the types of open education their institutions are conducting. As shown in the figure, 40% of instructor respondents said that their institutions offer MOOCs, 61% said they offer online courses, 46% said they offer online programs, 51% said they offer enrichment materials, and 34% said they offer open software/e-learning software.

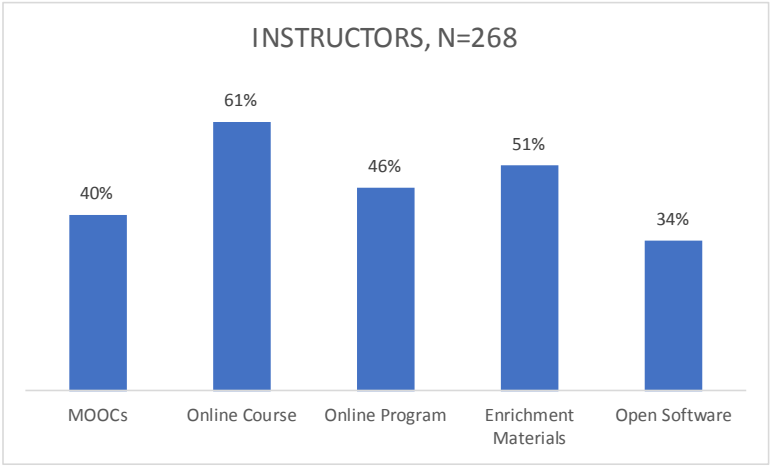


Figure 2.13. Type of Open Education Developed/Offered by Institutions.

It is important to note that the questionnaire allows the respondents to select multiple options; therefore, one respondent might have selected one, two, or even all choices. These findings are very interesting as they are surprisingly different from what is widely known. All this time, only UT has been known to offer such flexibilities and openness in the Indonesian higher education system. Hence, the fact that many instructor respondents claimed that their institutions are also involved in open education can be viewed as doubtful. However, further data on their target audience apparently reveal some explanations for these unexpected findings.

The target audience of what is so-called "open education," as stated by instructor respondents who are not from UT (112 respondents), do not all fall into the category of "open public." For example, all 51 instructors who claimed to offer online course said that the course was meant for their own students as enrichment; all (28 respondents) said that they were only offering it for special program and human resource development of partner institutions; only seven (7) out of 20 instructors said that their target audience is the general public, the other 13 respondents said that it was meant only for their students as enrichments. This information depicts that what they actually do as an "open education program" was not necessarily "open" as in the "open education" definition. This information also reveals that those respondents did not understand the meaning of "open education" correctly as they claimed they did. This misunderstanding was also revealed in the interview with one of the Rectors of a private university who defined "open education" as distance education or online education. The nomenclatures of open, distance, and online learning seem to be viewed synonymously by many respondents.

The misunderstanding about open education was also shown by the instructors' response to the question about government policy on open education. It reveals that not many instructors knew if there was any government policy that relates to open education in Indonesia. Thirty-seven (37) instructors from outside UT responded to this particular question, 38% of which mentioned *SPADA* as the government policy on open education. *SPADA*, which stands for Sistem Pembelajaran Daring, is a consortium of several universities launched by the Ministry of Higher Education to offer online learning. A number of instructors (27%) stated that there was a government regulation concerning distance learning, and another 27% replied that there were actually several government regulations with regard to education, including the regulation on the administration of open and

distance learning (ODL) for higher education and e-learning. Based on the responses, many instructors in Indonesia seem to perceive open education as the same as distance education.

As for students, when asked whether they have ever participated in any "open education" program, 136 out of the 1120 respondents (12%) said, "yes" (Figure 2.14). Among those who answered "yes," 83% (113 respondents) indicated that they participated in formal education programs (Figure 2.12). Furthermore, the data shows that 90% (102 respondents) of those who claimed to have participated in formal open education are Universitas Terbuka's students, and only 6% (7 respondents) are students of other universities. This data reveals that UT is no longer the only university offering formal open education. The other universities mentioned by students that have offered formal open education are Universitas Indonesia, Universitas Gajah Mada, STT Nurul Fikri, STIE Galileo, and Politeknik APP Jakarta. While Universitas Indonesia and Universitas Gajah Mada are state universities and two of the best universities in the country, the other institutions mentioned above are small private universities.

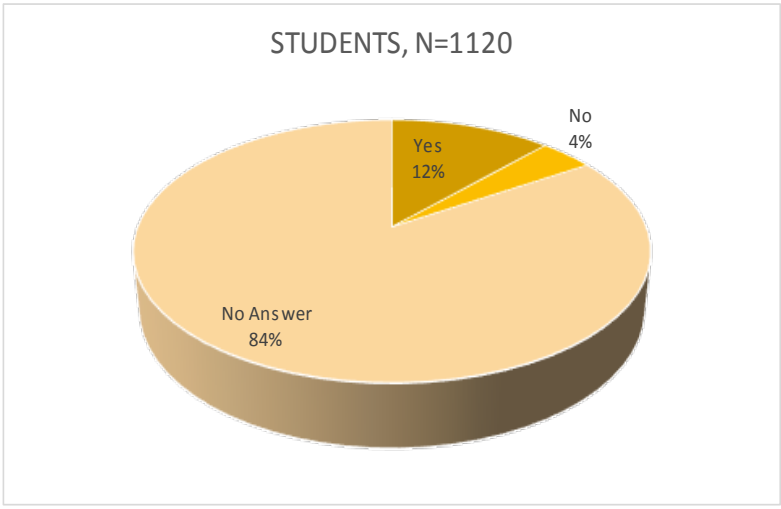


Figure 2.14. Students' Participation in Open Education.

Figure 2.15 also shows that the nature of openness of the open education programs that students have participated in varies. Nineteen percent (19%) of students said they did not have to take the entrance test to join the program, 10% said there was "no time limit" in studying, 25% said there

was “no age limit,” 19% said there was “no prerequisite,” and only 3% said that it was free.

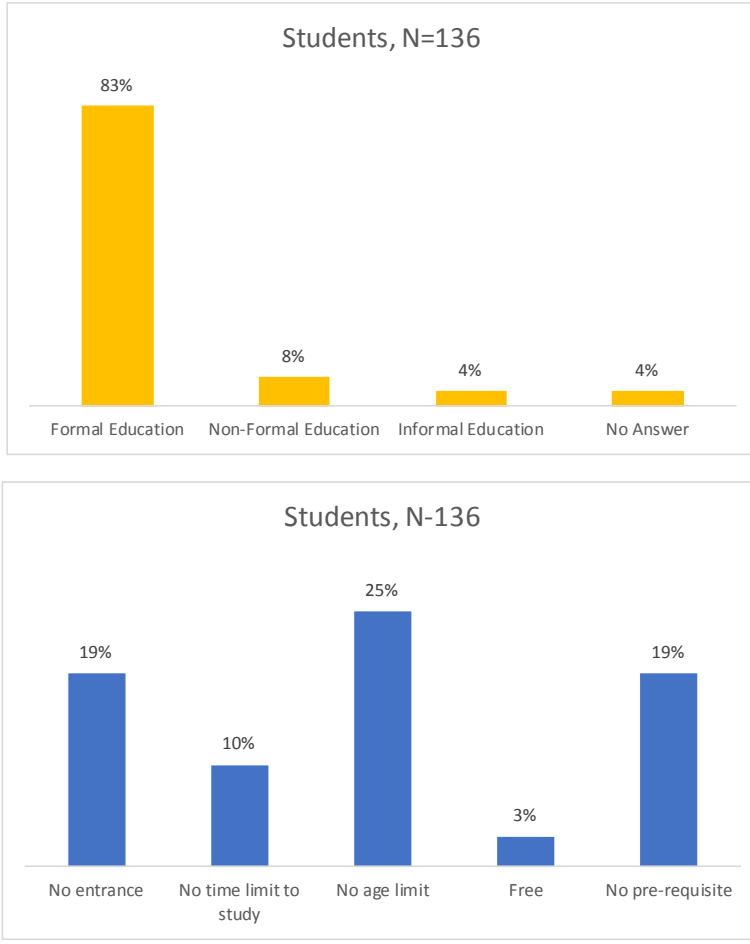


Figure 2.15. Type and Nature of Openness of Open Education Participated by Students.

When asked about their reasons for taking the open education programs, students had different reasons. A good portion of students enrolled in the open education programs because of the flexible time (19%) it offers and because of the fact that they can continue their studies without having to take a leave from their jobs (18%). Others join the program to enhance their professionalism skills (16%) and to obtain a diploma (15%). People also join to enrich their knowledge and help improve their qualification for work.

c. Other Major Players of Open Education

Pusat Teknologi Informasi dan Komunikasi Pendidikan (PUSTEKKOM) or ICT Center for Education

Pustekkom is a center within the Ministry of Education and Culture that is in charge of the technology of the Ministry. In 2000, the mandate of Pustekkom was extended to include ICT-related programs, such as establishing a national network that connects schools and the local education authority (Dinas Pendidikan) and the Directorate General of Primary and Secondary Education at the Ministry (Jardiknas), capacity building of teachers (Diklat), as well as developing and deploying ICT-based content (learning materials) for schools. Pustekkom also became the IT backbone to support the national Open High School system.

Pustekkom has, for many years, developed educational content that aims to help teachers in their daily teaching activities. Its educational content came initially only in the form of broadcasted programs which were aired through its own television station of TV Edukasi but has now been deployed through various forms categorized as Rumah Belajar, TV Edukasi, Instructional Video, and Mobile Edukasi. Although there is some overlapping content among all categories, Pustekkom claims that it has developed around 80,000 titles of educational content that are now available for schools through its various websites (information gathered through the interview with the Head of Pustekkom). Under Rumah Belajar alone, for example, there are 32 titles of animations and interactive video programs, as well as all-digital books that are being used by schools (from primary to high schools, including vocational schools). Under TV Edukasi, aside from the live TV programs, there are about 1,899 titles of Video-on-Demand. It is important to note, however, that although all content is open to the public, they are neither labelled as open content nor open licenses.

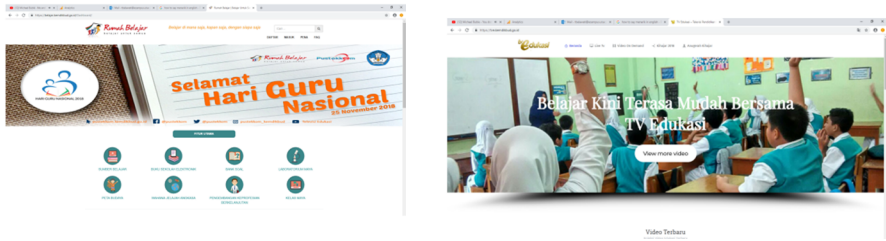


Figure 2.16. Portal of Rumah Belajar and TV Edukasi.

SEAMEO- SEAMOLEC

SEAMOLEC is an intergovernmental organization that is part of the ASEAN Ministry of Education Organization (SEAMEO) and responsible for enhancing the practice of open learning within the ASEAN region. In line with its mission, SEAMOLEC has been very active in building the capacity of ASEAN education institutions in fields related to opening up their education systems.

SEAMEO-SEAMOLEC started offering MOOCs in 2016 with 27 free courses on various topics related to information and communication technologies, such as animation, edu-game, and programming. Up to this point, SEAMOLEC has developed and offers 45 MOOCs through its website. Because the target audience includes people from different countries in the Southeast Asian region, the courses are conducted in English and Bahasa Indonesia. It was reported that no less than 31,043 learners have participated in its MOOCs (Pascua-Valenzuela & Sujak, 2018). SEAMOLEC has also developed numerous OERs in various fields. Figure 2.17 shows the front page of the SEAMOLEC MOOCs and OERs website.

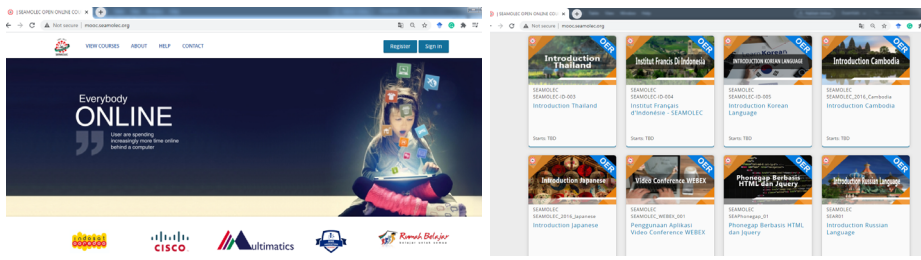


Figure 2.17. Interface of SEAMOLEC MOOC's website.

Ciputra University

The Ciputra University offers free courses (not explicitly named as MOOCs) through the Ciputra Entrepreneurship Online (CE-O). The CE-O was started on August 24, 2013, and presently offers 15 free courses on basic entrepreneurship. According to the data, more than 122,000 people from more than 1,000 cities in more than 100 countries have registered and participated in their MOOCs. However, data indicate that less than 3% of those participants have completed the courses in which they registered. The free courses are still available through the CE-O website (https://ciputrauceo.com/) but unfortunately, the university decided that there would be no new courses developed until further notice.

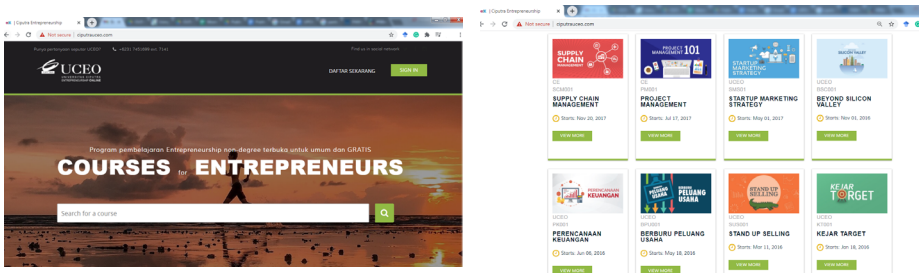


Figure 2.18. Interface of UCEO website.

IndonesiaX

Established in 2015, *IndonesiaX*, is a private organization that provides a MOOC platform. The MOOCs within IndonesiaX are developed and offered by partner institutions, such as universities and private corporations. Its vision is to be the most preferred independent online MOOC hosting platform for enriching the lives of Indonesians. It currently offers 26 free courses from 17 partner institutions, with an accumulated total participation number of 154,751 learners. Aside from the free courses, *IndonesiaX* also offers a certification track for a small fee (i.e., IDR 50 thousand or a bit above three U.S. dollars).

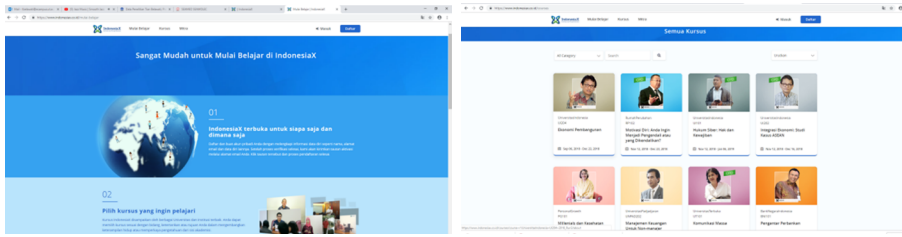


Figure 2.19. Interface of IndonesiaX website.

SPADA

Sistem Pembelajaran Daring Indonesia (*SPADA*) or Indonesia Online Learning System is a project initiated by the Ministry of Research, Technology, and Higher Education that facilitates the development and deployment of shared courses via an online system among seven universities. In 2015, the Ministry expanded the project and started to provide grants to lecturers of both the initial seven universities and others to develop and offer free and open courses. Since 2015, it was claimed that SPADA has developed 221 MOOCs, 189 of which are still available on its website *(http://spada.ristekdikti.go.id/)*. These 189 MOOCs are developed and deployed by about 54 universities. It was also claimed that no less than 10,000 students (as their main target are university students) have participated in their MOOCs, with an average completion rate at 35%. SPADA's partner universities have also developed thousands of OERs (the exact number is not mentioned in the questionnaire's response) that are deployed using Creative Commons licenses.

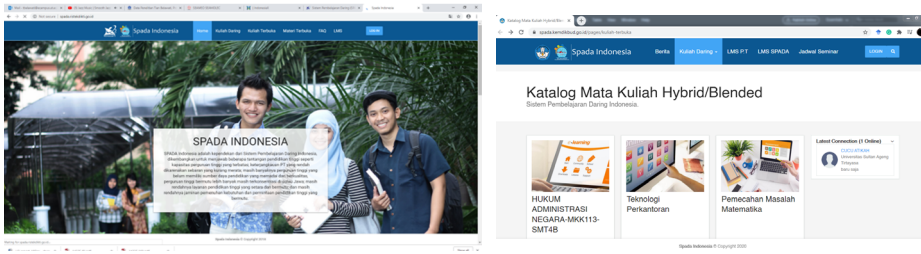


Figure 2.20. Interface of SPADA website.

Besides the above providers, there are other organizations that offer MOOC-like courses. Among them are:

- KelasKita *(https://kelaskita.com/)*, which is an online learning platform that facilitates individuals and organizations to develop and offer either free or paid online courses (termed as a premium class). KelasKita claims that it currently has over 500 courses in disciplines related to language, programming, and graphic designs.

- CodeSaya *(https://codesaya.com/)* started in 2013. It is focused on providing free online courses on coding.

- SekolahPintar *(https://sekolahpintar.com/)* was established by a private consultant company on Web design, animation, and an online business called BabaStudio. It currently has approximately 57 free courses in various disciplines. In addition to the free ones, SekolahPintar also offers premium track courses for a fee.

- FOCUS *(http://focus.fisipol.ugm.ac.id/)* offers open online courses provided by the Faculty of Social and Political Sciences of Gadjah Mada University (FISIPOL UGM). FOCUS is sponsored by a private bank and it has offered 12 free online courses in social and political science fields through its website since 2016.

Table 2.1 shows some basic data of MOOCs' participation and completion rates among the above-described providers.

Table 2.1

Some Basic Data of MOOCs in Indonesia

Provider	Establishment	Current No. of MOOCs	No. of Participants	% of Completers
Ciputra University	2013	15	122,000	<3
Universitas Terbuka	2014	8	6,726	16
SEAMOLEC	2016	27	31,043	-
IndonesiaX	2015	26	154, 751	-
SPADA	2015	144	10,000	35

Source: Data provided by the Management of the Providers

As shown in Table 2.1, IndonesiaX is the most popular MOOC provider, followed by Ciputra University. These figures seem to be correlated with the promotion of these programs. As with many new products, exposure through marketing resources and public initiatives do matter. KampusUNJ.com reported that Ciputra University and IndonesiaX promote their MOOCs through various social media such as Facebook, Twitter, Instagram, and YouTube (KampusUNJ, 2016). With regards to the age, based on data of the IndonesiaX and UT's MOOCs, participants are spread across an age bracket of 15 up to above 65 years old. However, over 88% of IndonesiaX participants fall within the 18 to 44 age group, while about 51% of UT's participants are between 19 and 39 years old.

The above data also show that the providers of MOOCs in Indonesia still need to promote their programs and perhaps conduct a joint campaign to raise awareness about the opportunity.

CONCLUSION

Indonesia has adopted open and distance education for at least 33 years with the establishment of Universitas Terbuka in 1984. The contribution of the use of the open education system to the national higher education participation rate has been significant as shown by the fact that 4% out of the 33.3% national participation rate is from the UT student body. It seems that the long existence and the significant contribution of UT have made people aware of the benefit of open education in Indonesia.

This exploratory study that aims to see the level of understanding and practice of open education in Indonesia reveals that the majority of respondents claimed to understand the meaning of open education, and they view open education as "a philosophy about education for all" and "an online education." This shows that all respondents, whether they are heads of institution, instructors, and students, believe that open education is about making education accessible to all. They also seem to think face-to-face education limits the accessibility of education. Many heads of the institution and instructors also believe that open education is "beneficial to the society." Interestingly, but understandably, many students also believe that open education is "education with low cost" and should be a "government program for the people." Furthermore, many respondents thought of UT as one that practices open education in Indonesia.

A good proportion of Head of Institution (55%) respondents claimed that their institutions were doing something related to open education practice, which means that they applied policies such as 'no entrance test', 'no time limit to study', 'no age limit', 'free', and 'no pre-requisite to enter. Several institutions have even developed and offered MOOCs open software/ applications distributed freely to the public.

A good portion of Head of Institution (55%) respondents claimed that their institutions are doing something related to open education practice, which means that they have applied policies such as "no entrance test, no time limit to study, no age limit, free, and no prerequisite to enter." Several institutions have even developed and offered MOOCs open software/applications distributed freely to the public.

As for the instructors, the awareness of any open education initiatives seems to be lower than that of the Head of Institutions. Similarly, their understanding of open education is also doubtful in spite of their claim that they understand it. Their responses to the question about their target audience in their "open education practice" indicate they do not all fall into the category of "open public," but were meant only for their own students as enrichment, or for special programs of human resource development of partner institutions. This information reveals that what they actually do as open education program is not necessarily "open," as in the "open education" definition. This information also reveals that those respondents did not "understand" the meaning of "open education" correctly as they claimed they did.

The study also shows that even though the practice of open education in Indonesia is still very limited, several major players have already emerged. Those major players include both government and government-affiliated institutions, as well as private institutions.

REFERENCES

Alfonso, G.H., Saludadez, J.A., & Piamonte, D.M. (2017). *Capitalizing open education in ASEAN: Philippines* (Unpublished Research Report).

Belawati, T. (2014). Open education, open education resources, and Massive Open Online Courses. *International Journal of Continuing Education and Lifelong Learning,* 7(1), 1–15.

Belawati, T., & Bandalaria, M.dP. (2019). Distance education in Asia: Indonesia and Philippines. Dalam M. G. Moore dan W.C. Diehl, *Handbook of Distance Education.* Fourth Edition (hal 557–579). New York: Routledge.

Hewindati, Y.T., & Belawati, T. (2017). Massive open online courses as a community programme. *ASEAN Journal of Open and Distance Learning (AJODL), 9*(1), 1–11.

Huong, N.M. (2017). *Open and distance learning in Vietnam: Opportunities, barriers, challenges* (Unpublished Research Report).

Kampus, UNJ. (2016). *Inikah situs kuliah online (MOOC) terbaik Indonesia?* Retrieved from https://kampusunj.com/situs-kuliah-online/

Kemristekdikti. (2017). *Laporan Tahunan Kemenristekdikti*.

Kemristekdikti. (2018). *Kebijakan baru pendidikan tinggi*[ppt slides].

Majelis-Pendidikan. (2017). *Memandang Revolusi Industri dan Dialog Pendidikan Karakter di Perguruan Tinggi Indonesia 1.* Kementerian Riset, Teknologi dan Dikti. *The open education foundation: A brief overview*. Retrieved from http://www.openeducation.org.

Pascua-Valenzuela, E.A., & Sujak, A. (2018). *Integrating the digital literacies in SouthEast Asia. Success stories from SEAMEO.* Unpublished presentation file presented at the UNESCO Mobile Learning Week, Paris, 26–30 March 2018.

Permendikbud Nomor 109 Tahun (2013). Penyelenggaraan Pendidikan Jarak Jauh pada Pendidikan Tinggi.

Permendikbud Nomor 119 Tahun 2014. Penyelenggaraan Pendidikan Jarak Jauh pada Pendidikan Dasar dan Menengah.

Subramaniam, T. (2017). *Capitalizing open education in ASEAN: Malaysia.* Unpublished Research Report.

Susilo, A. (2017). *Capitalizing open education in ASEAN: Indonesia* (Unpublished Research Report).

UNESCO. (2009). *Open educational resources.* Conversations in cyberspace. Retrieved from http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/open-educational-resources-conversations-in-cyberspace/

The World Bank. (2014). *World Bank and education in Indonesia.* Retrieved from www.worldbank.org/en/country/indonesia/brief/world-bank-and-education-in-indonesia

Universitas Terbuka. (2018). *Laporan kerja tahunan Rektor Universitas Terbuka 2017* (Universitas Terbuka Rector's Report of 2017). Universitas Terbuka.

The State of Open Education Practice in Malaysia

Thirumeni T Subramaniam & Mansor Fadzil

CHAPTER 3

BACKGROUND

Malaysia is one of the few countries in the world known for diversity in terms of its flora and fauna, as well as the human population. It is situated in Southeast Asia and is divided into two main parts: Peninsula Malaysia and East Malaysia. Malaysia has a total population of 32 million people in 2017 (Department of Statistics, 2018), of which 3.3 million are non-citizens. The age group between 15 years old and 64 years old makes up almost 70% of the population, and much of this population is in the adult learner category and potential students of open universities. While the majority of the population, around 69%, live in urban areas, the distribution of the population in the rural, as well as remote areas would benefit from the flexibility that open universities offer.

The country's aspiration to become a fully developed country that is marked by a high literacy rate, equal opportunities for acquiring a minimum level of education, and a culture of lifelong learning can certainly benefit from open education systems. Efforts could be targeted to set the minimum education level at the completion of secondary school in Malaysia. The percentage of students completing secondary school education must be raised by ensuring that all students achieve the minimum level of competency, that is, by creating flexible opportunities not bound by time or age. The expected mean years of schooling for most developed countries are well above 15 years. While the figure for Malaysia was at 13.7 years in 2017 (United Nations Development Programme, 2018), the actual mean for years of schooling in 2017 for Malaysia is only 10.2 years. Meanwhile, at tertiary education, the enrolment rate is merely at 48.3% (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2019). As such, the role of open universities in the country is important. This is evident with the recognition of lifelong learning as the third pillar of Malaysia's Human Capital Development System

(Ministry of Higher Education [MOHE], 2011). The Blueprint on Enculturation of Lifelong Learning for Malaysia: 2020, listed five key success factors: (1) Lifelong Learning Policy in Malaysia; (2) Adequate Financial Support; (3) Quality Assurance Framework; (4) National Promotion/Awareness Campaign; and, (5) Conducting Research and Development (MOHE, 2011). In Malaysia, the providers of lifelong opportunities are not confined to the three open universities (Open University Malaysia [OUM], Wawasan Open University, and Asia e-University), but also include public universities through their distance education centers.

There seems to be a growing interest among the universities for providing lifelong learning opportunities. Malaysian higher education institutions (HEIs), both public and private universities, are governed by the Malaysian Qualification Agency (MQA) through the national code of practices and qualification framework. MQA provides a separate quality document for ODL providers in the form of the Code of Practice for Open and Distance (COP-ODL); however, the ranking and rating exercises are the same between conventional and open universities. The quality assurance framework for open universities could be widened through an integrated framework that offers inclusivity and global recognition towards open education. Important agencies that can be corroborated by Malaysia include the UNESCO's Institute of Lifelong Learning, Commonwealth of Learning (COL), ASEAN Qualification Assurance Network (AQAN), and others. At present, MQA is already a member of the AQAN. Such an approach can help to improve the openness and internationalization of the qualification framework. The existence of research and development activities in the area of lifelong learning in Malaysia is evident through the existence of several ODL journals and conference activities. The ASEAN Journal of Open and Distance Education (AJODL) is an example. AJODL is an open access online journal that is managed under a collaborative effort between five open universities from five neighboring countries in ASEAN: Malaysia, Indonesia, Thailand, Vietnam, and the Philippines. As a region recognized for its potential and increasing collaborations, open universities in ASEAN should continue to push the frontiers of research and innovations in open education further by providing innovative solutions.

The Role of Open University Malaysia

Established in August 2020, the Open University Malaysia, known widely in the country as OUM, is Malaysia's premier open university under the Malaysian Government's initiative. It is a private institution that is fully

owned by a consortium of 11 public universities. Today, it exists as a self-sustaining mature private university that is committed to the promotion of lifelong learning and the provision of affordable open and distance learning (ODL) programs at various levels (diploma, degree, postgraduate diploma, and postgraduate programs). Given the nature of its establishment, it's capacity as a private entity, and the national aspirations, a smart partnership between the government and OUM could provide flexible solutions that can help widen access and provide equal opportunities to all lifelong learners, regardless of their age, gender, socio-economic status and other forms of predisposition.

OUM is committed towards ensuring the quality of its education programs. One of the few important quality criteria at OUM is the achievement of graduate attributes that are meaningful to its learners and the country. At OUM, employers of its learners are important stakeholders. Employability of its learners as members of the working adult population of the 21st century is important. OUM, through its Centre for Research and Innovation, has embarked on several institutional research projects that are targeted towards the improvement of its education system. Course designs are important. Each course is led by a course leader who is assigned to ensure the quality of the courses. The courses are offered through a customized open-source learning platform called myINSPIRE, as shown in Figure 3.1. Courses are also redesigned to ensure its relevance. OUM design and redesign its courses to meet the needs of its learners. An example is the redesigning of its compulsory university course on learning skills that is aimed at preparing its learners for both learning and working environments of the 21st century. OUM continues to hope for greater changes towards democratizing education through a philosophy that espouses accessibility, affordability, and flexibility in all aspects of teaching and learning (OUM, 2018).

Figure 3.1. myINSPIRE, OUM learning platform.

The Open Education Consortium (2016) relates open education to the traditions of knowledge sharing and creation which when combined with technology creates a vast pool of resources, tools, and new practices to improve access to education. This is the essence of open education that OUM embraces. The educational philosophy of open learning emphasizes giving choices in learning (Commonwealth of Learning [COL], 1999). What are the choices that a learner can have about their learning? In terms of access and flexibility in learning, it includes open access in terms of location and time, flexibility in learning and assessment, and exit requirements. The extent of accessibility and flexibility that characterize open education may project it as an attractive choice for adult education. However, the extent of openness that can be afforded for Adult Education lies in the assumptions made in adult education, which may differ from one culture to another.

In Malaysia, access is widened through Open Entry mode. The mode allows the recognition of prior experiential learning. The Accreditation of Prior Experiential Learning (APEL) Centre at OUM is appointed as a partner university for the implementation of APEL in Malaysia by MQA. In 2006, OUM was the first private university to obtain approval from the MOHE to implement the Open Entry System for the admission of learners. The system is now known as Flexible Entry. The system is open to any Malaysian, age 21 above, who has the relevant working experience (to the program applied), and who has passed the flexible entry assessment (see Figure 3.2).

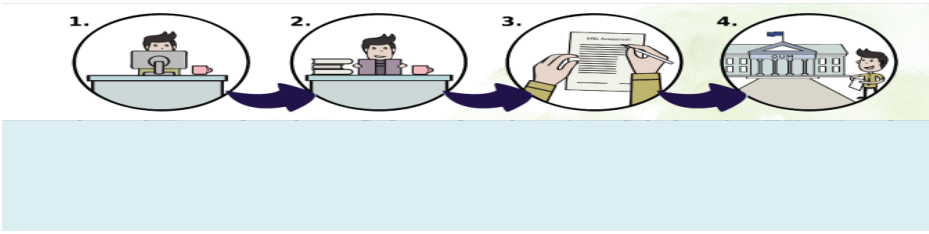


Figure 3.2. APEL implementation.

Flexible learning introduced through Blended Learning at OUM comprises of: (1) self-instructional learning materials in the form of downloadable/ printable pdf format modules; (2) asynchronous and synchronous online forum sessions; and, (3) face-to-face tutorial sessions. These components are supported on myINSPIRE. The extent of ubiquitous learning at OUM is also widened through its mobile learning options.

Learners are also linked to additional learning resources, such as Frequently Asked Questions, Online Learning Tasks, Online Self-Assessments, and others. Open educational resources (OERs) are actively being incorporated into each course by the respective course leaders. The 2012 OER definition by UNESCO is adapted here. *OER* is defined as "teaching, learning, and research materials in any medium, digital or otherwise, that resides in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions" (UNESCO, 2012). There is an increasing awareness of the use of OERs in OUM at present. The Learning Technology Unit promotes the use of OERs by providing training to course leaders. OUM hopes to encourage its course leaders to move from large users of OERs to producers of OERs. The absence of a policy on OER in the country merely highlights the use of OER in the country. According to Abeywardena et al. (2013), the use and development of OER in Malaysia is not widespread. In addition to the use of OER and other support materials, learners are also linked to numerous e-books and online databases through OUM's Tan Sri Sanusi Digital Library.

While all courses are equally supported through the aforementioned learning modes and options, some courses are offered in a purely online mode with no face-to-face interactions. There is a preference towards fully online mode courses, especially among learners whose work conditions do not support scheduled class sessions. Meanwhile, the offer of Massive Open Online Courses (MOOCs) is not prevalent in OUM. Instead, a modified MOOC template is used to design language courses. The aim of such courses is mainly to improve literacy and the courses are open to any learners (inside and outside Malaysia).

The publication of AJODL and its promotion as an open-access journal is managed by the Centre of Research and Innovation, OUM. Article submissions are administered through the online journal management system, known as MyJMS, by the Malaysian Citation Centre (an agency under MOHE that also manages the Malaysia Citation Index or MyCite). This effort was done to support academic journals that are published in Malaysia. MyJMS is a customized online journal management system that is built on a journal system that was developed under public knowledge projects. The center also promotes publications in other open access journals by encouraging OUM academic staff to use and publish in these journals.

Generally, OUM strongly believes in the philosophy of open education, open science, and in the delivery of quality education. There are conscious efforts towards widening access and increasing flexibility in the delivery of the programs. Apart from flexible entry, several financial incentives have been established to support its learners. Nevertheless, as a self-financing higher education institution, OUM has to ensure that there are sufficient financial gains to enable its existence. Today, OUM exists as a self-funded ODL institution that has been in operation for 18 years. It is also classified as a mature university that undergoes rigorous MQA's approval and accreditation procedures at individual program levels and institutional levels. OUM ensures that its practices meet the code of practices of ODL institutions. OUM inspires to be in the frontiers of research and innovation in the area of technology-enhanced teaching and learning practices, learning designs, and several other niche areas. OUM could form smart partnerships that could possibly increase the extent of openness of its education services.

In line with its role, OUM participates in collaborative efforts, such as the research collaboration among the five open universities in the ASEAN region under which this study was carried out. The reports from all other four open universities are also presented in this book. At OUM, the target population was confined to its full-time instructors. The questionnaires were distributed online and later offline to about 100 instructors who are full-time academic staff at OUM. Only nine responses were received. The findings are discussed in the next section.

THE SURVEY RESULTS

a. Knowledge and Perception about Open Education

All nine respondents stated that they understood what is meant by open education. The responses to the second question are depicted in Figure 3.3. All respondents selected the options: (1) beneficial to the society; and, (2) a philosophy about education for all. The findings prove, at the fundamental level, that everyone understands the philosophy of open education and believes that it is beneficial to society. This is crucial as the nation is thriving to improve and progress towards a knowledge society by making sure that education is inclusive, where all Malaysians have equal opportunity to pursue their education.

The responses about the cost of open education are rather mixed, where some think it is free education, while others think it is education with lower cost, and which includes options such as free software, and free books. The divided perceptions may have resulted from the fact that all three open universities in Malaysia are private institutions that would have to be self-sustaining financially. Therefore, in practice, free education for working adults at the tertiary level is not a probable solution in Malaysia. However, two respondents believed that it ought to be a government program for the people. Perhaps, the respondents truly believe that open education should be free and the only body that could enable such a framework in Malaysia is the government. Most respondents are aware of the governmental policies on open education. Many cited the blueprint on Lifelong Learning, Code of Practice for Open and Distance Learning by MQA, and the government policy on MOOCs. The findings also indicated that only seven out of the nine respondents are fully aware of open education practices in the country, as well as in the university. These findings are depicted in Figure 3.3.

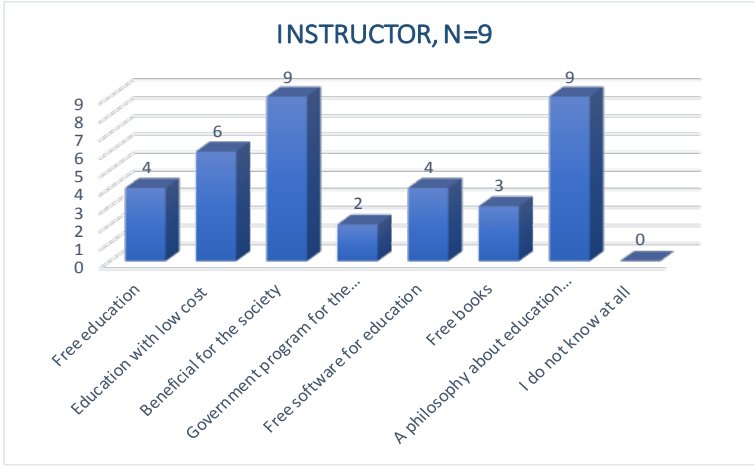


Figure 3.3. Perceived Knowledge about Open Education.

b. Involvement in Open Education Programmes/Initiatives

Open Education Programmes/Initiatives at OUM

At the organization level, seven instructors responded that they are aware of the open education initiatives at the university level. However, only 5

respondents indicated that they truly know about the actual practice carried out at the university. Others did not respond to the detailed questions about the practices at OUM (see Figure 3.4). All programs offered by OUM are formal programs that undergo the certification process by MQA. The open system practiced at OUM allows entry to the approved and credited programs through two modes: (1) Normal Entry where students meet the minimum requirement set according to the guideline by MQA, or (2) Open Entry where students are assessed based on how relevant their working experience is to the program that they apply for. The minimum age of entry through the open entry mode is 21 years. There is no upper age limit. There is a fee attached to each program to afford the resources needed. OUM does its best to offer a variety of discounts to students and even fund some through the Yayasan Cancelor.

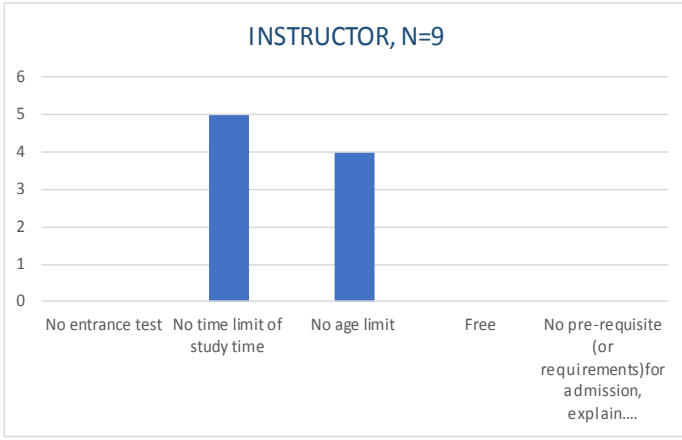


Figure 3.4. Perceived Knowledge about Open Education.

Respondents are also well aware of the goals of the programs. Some of the goals highlighted include:

- providing opportunities to adults who have the working or professional experiences but lack formal education;
- increasing the level of education of the society as a key instrument in creating knowledge-based society;
- promoting of lifelong learning; and,
- selecting free topics meant to improve basic skills or current skills, which also create experience and awareness about the path for further education.

Self-instructional learning materials for all courses are developed in the form of downloadable/printable pdf files. The materials along with other support materials are uploaded to individual course portals that are embedded on myINSPIRE. All students registered for the courses are able to download the materials and print them if necessary. Recently, OUM has also developed modules with sound clips that are meant to assist pronunciation in language courses. The respondents are also well aware of the targeted users of these materials. The materials are not available under open licenses. This is due to the fact that all costs from the payment for man-power, facilities, and even the cost of obtaining approval and accreditation of the programs under which the courses are offered are born by the university, with no funding from the government or any other institutions.

MOOCs at OUM are being developed in a modified format and are offered for free for the promotion of basic literacy levels (English Literacy, Numeracy, and Digital Literacy) and languages. The literacy MOOCs are important for the improvement of the self-efficacy of potential and existing lifelong learners. Language MOOCs are purely meant to facilitate further integration in a multicultural/global society. The MOOCs are open to all learners, within, as well as outside, OUM. These MOOCs are developed using further customization of the Moodle platform. Nevertheless, academics are free to offer MOOCs in their area of expertise using any other platform. According to Chea (2016), MOOCs face the challenge of high non-completion rates. This raises the question of the efficient use of resources for private institutions. Nevertheless, MOOCs in the country are well supported by the government. In 2016, MQA published the Guidelines on Credit Transfer for MOOC, which is based on the principle of recognition of prior learning acquired through various means, from working experience to formal, informal, and non-formal learning. The document also includes the criteria for ensuring the quality of MOOCs, specifically ensuring the adequacy of content and credit equivalency.

OUM has long been experimenting with the use of open-source learning software, apps, or platforms. At present, it has customized its learning managing system using the open-source platform, Moodle. Moodle also offers mobile apps that are integrated into each course. In addition, a mobile app for course management was developed to support learners. The targeted users include both students and instructors. The main objective of the integration of open source into the university's framework is due to the fact that open source avoids the repetition of the processes that have

been developed elsewhere. The aim is to build on existing resources and/or contribute towards further development or customization to the local context. In a way, it is the most efficient form of technology transfer.

Challenges, Hopes, and Rationales

Interestingly, there were many issues raised with regard to the challenges in open education. The responses are grouped under the following key issues.

- Awareness

  One respondent captured it as *"Lack of understanding and appreciation from relevant stakeholders."* Stakeholders identified in the responses range from learners, instructors, institutions, government, and the general public. The spirit of collaboration embodied in open-education has yet to be embraced by the institutions involved in Malaysia.

- Resources

  When there is a lack of clear policies, the resource allocation for efforts in open education would also be affected. Since the element of profit does not exist in open education, and the development of open education does incur a cost, "sustainability of the open education initiatives" is a concern that was raised by one respondent.

- Development

  There are concerns about the development of open education initiatives. One of the respondents raised the issue of copyright awareness. Another respondent raised the following: "*There is also the challenge to find OERs that fit and can be used in the local context"*. This highlights the efforts needed to adapt, as well as develop, open initiatives that are more inclusive in the local or global context.

- Implementation

  There are concerns over the implementation of open education initiatives. One should not merely create. Open initiatives that are implemented must attain the aims of open education in an effective

manner. Effectiveness has been identified as an important element of sustainability. One respondent remarked, *"How to make it work"?*

- Learners

  Another issue concerning the learners is their completion rate. The reasons for drop-out are often personal, such as time constraints, and situational barriers that are beyond the control of the providers. Despite the high rate of drop-out, open education offers the flexibility that enables learners to complete their studies successfully.

- Quality

  The issue of quality assurance was also raised. The lack of policies at the institutional or national level makes the issue of quality more critical. Nevertheless, interested institutions should develop their own quality assurance mechanism as part of the design and development phase of the initiatives.

As for the hopes that the instructors have for open education both at institutional level and national level, the responses are also grouped under the following elements:

- Governmental Support

  Many hope for open education to revolutionize higher education in Malaysia. Open education should be aligned with the national aspiration to make education accessible to everyone. What is needed is a clear policy and support, in terms of framework and infrastructure (especially ICT infrastructure) and financial support.

- Private Sector Support

  With regards to knowledge-workers or knowledge-society, the benefit of open education to the private sector cannot be denied. The private sector stakeholders must be engaged in formulating policies and supporting the development of open initiatives, specifically in providing infrastructure and financial support. Such corporate social responsibilities have a possible return of investments in terms of human capacity development.

- Public Sector Support

  In order for society to experience the benefits of open education, greater awareness, and engagement is needed. Public participation must be supported by developing step-by-step building blocks that can increase their readiness, engagement, and success.

- OUM

  Respondents also expressed their hope for OUM to be on the frontier of open education initiatives in the country/region.

Do the respondents believe that open education is good for the society and the nation? All of the respondents believe that it is. The rationales provided by the instructors are listed below:

- Democratizing education to ensure that people who need the opportunity to further their education can actually gain the access to education. This is particularly true for the lower-income groups, highly dynamic people, lifelong learners with diverse learning interests, and others.

- Raising the level of literacy, digital skills, and other competencies relevant to the 21st century.

- Creating learning experiences that are fun, personal (individualized learning pathway), collaborative, cross-boundary, globalized, and allow individuals to develop their creativity and innovativeness.

- Open education can open up a new area of study for education scholars. Studies can be conducted to discover how learning as a cognitive process change in an open environment that offer freedom of choices. Similarly, the change in learning behavior can also be observed to enable the development of new and innovative learning pedagogy that can benefit all learners.

c. Other Major Players of Open Education in Malaysia

- **The Wawasan Open University (WOU)**

  The Wawasan Open University (WOU) is a private higher education institution that was established in 2006 to provide educational opportunities to working adults. While it is similar in nature to OUM as a private ODL provider in Malaysia, it has a different form of governance, as the founding body and the type of funding received are different. WOU is based in Penang Island, North Malaysia. WOU expands its operation through its five regional learning centers. In 2013, it started to change the landscape of their learners by diversifying their education services to include full-time learners who are fresh school leavers (with Malaysian Higher Education Certificate or Sijil Tinggi Pelajaran Malaysia or STPM) or those who have obtained their diploma. In addition, WOU also offers fully online courses and short courses. WOU is also one of the few national APEL centers in the country. Throughout the years, WOU has formed linkages with various institutions, especially with industries (Wawasan Open University, 2006-2020).

- **The Asia e-University (AeU)**

  In 2008, Asia e-University has become the third private ODL institution in the country. Its inception began at OUM and was set-up as a separate entity under the government initiative. It aims to provide e-learning opportunities at the regional level. AeU offers fully online programs and blended learning programs to part-time learners and limited on-campus programs to full-time learners (offered only at its main campus in Subang Jaya, Selangor, Malaysia). Today, it has learners from 80 countries from all around the world (Asia e-University, 2019).

- **Distance Education Centres (Pusat Pendidikan JarakJauh also known as PJJ)**

  From the 1970s onwards, some of Malaysia's public universities established distance education centers or PJJs to make education more accessible to young adults. One of the most notable PJJ in the country is the Pusat Pengajian Pendidikan Jarak Jauh or School of Distance Education of Universiti Sains Malaysia (USM), established in 1971.

Today, it offers several programs for part-time learners. The duration of the programs ranges from a minimum of five years to a maximum of 12 years (School of Distance Education, Universiti Sains Malaysia, n.d.).

- **New ODL providers**

  Today, many higher education institutions in Malaysia (both public and private) are keen to offer ODL programs. The growing interest in the country became obvious with the promotion of MOOCs by MOHE. ODL programs are seen as an opportunity to widen the global reach. Preference of the new generation of young learners for flexible learning is also one of the factors that prompted these institutions to diversify their mode of delivery. The offer of ODL programs in Malaysia is subject to several regulations set by MOHE and is governed by MQA.

The arising number of ODL providers in other regions where ODL institutions are wholly owned by the government may or may not have any implications. This scenario is rather different in Malaysia, where all three ODL providers are private education institutions.

CONCLUSION

The emergence of the concept of open education in Malaysia way back in the 1970s began as distance education. Despite the long history of around 48 years, the establishment of open education at the national level, under the initiative of the government, only began in 2000 (after 30 years), with the establishment of OUM as the country's first open higher education institution. Today, Malaysia has three private open universities.

OUM was established as a private institution in order to exist as a sustainable education institution. By the year 2019, it has produced 73,762 graduates within Malaysia alone. The priority of the university is not only to provide education for all but also to ensure that the education provided to its learners has a meaningful contribution to the lives of its graduates. Thus, OUM ensures that all of its programs attain quality standards through the approval and accreditation process set by the country's national qualification agency, the MQA. Throughout the years, its effort to provide quality education was supported by studies on student attrition, quality of services, employer satisfaction, and more.

This study is designed as an exploratory study to see the level of understanding and explore the practices of open education in Malaysia by focusing on the perceptions of OUM instructors. It would certainly be useful to expand it further to include other key ODL institutions. The findings of this study indicated that the instructors who have responded well to the questions have a good understanding of what is meant by open education, believe in the benefits that open education initiatives have to offer, and hopes that further collaborative efforts are taken by all stakeholders in the country to materialize the aspirations that open education has to offer. As a nation thriving to become developed, the realization of this aspiration should be prioritized.

REFERENCES

Abeywardena, I. S., Dhanarajan, G., and Lim, C.K. (2013). Open Educational Resources in Malaysia. In D. Porter & G. Dhanarajan (Eds) *Open Educational Resources: an Asian Perspective*, 119–132, Chapter 7. COL and OER Asia.

Asia e-University. (2019). Retrieved from www.aeu.edu.my

Chea, C. C. (2016). Benefits and Challenges Of Massive Open Online Courses. *ASEAN Journal of Open and Distance Learning. 8*(1). 16–23.

Commonwealth of Learning (COL) and Asian Development Bank (ADB). (1999). *An Overview of Open and Distance Learning.* Commonwealth of Learning.

Department of Statistics. (15 July 2019). *Current Population Estimates, Malaysia, 2017-2018* [Press Release].

Ministry of Higher Education. (2011). *Blueprint on Enculturation of Lifelong Learning for Malaysia:* 2020. Ministry of Higher Education.

Open Education Consortium. (2016). Retrieved from www.oeconsortium.org

Open University Malaysia. (2018). *2017 in Focus*. Open University Malaysia.

School of Distance Education, Universiti Sains Malaysia. (n.d.). Retrieved from http://pppjj.usm.my/index.php/ms/

United Nation Development Programme. (2018). Retrieved from www.un.org

Wawasan Open University (2006-2020). Retrieved from www.wou.edu.my

The State of Open Education Practice in the Philippines

Grace Javier Alfonso, Jean Saludadez, & Dona Lyn Piamonte

CHAPTER 4

BACKGROUND

In the Philippines, open learning is recognized as an educational system accessible to every individual with minimal restrictions by offering a flexible system to minimize barriers like age, geographical location, time constraints, and economic situation. The University of the Philippines Open University (UPOU), established in 1995, has been mandated to democratize access to higher education through distance education. Starting in 2001, the university began to offer online courses, and in 2007, the university transformed itself to become a university offering Open Distance e-Learning (ODeL) and dedicated to conduct rigorous research in ODeL. The ODeL applies the concept of openness, inclusion, resource sharing, access and equity of open learning, "learner centeredness," flexibility, active learning of distance education, interactivity, ubiquity, connectivity, and constructivist view of e-learning.

In this study, open education covers distance education, transnational education, and ODeL.

NATIONAL OPEN EDUCATION SITUATION/POLICY REGULATION

a. Distance Education

The Commission on Higher Education (CHED) is a regulatory body that grants institutions the authority to offer programs via distance education, and monitors and evaluates these programs. Several requirements are asked of the higher education institutions applying for a government permit and

recognition to offer distance education programs. The required documents that span along the following are:

1. Institutional Qualification
2. Institutional Management and Commitment
3. Curriculum Development and Approval
4. Instructional Materials Development
5. Delivery Mode/Strategies
6. Student Assessment
7. Student Support Services'

The CHED has issued Memorandum Orders consisting the following documents.

1. CHED Memorandum Order No. 27- S-1995_Policies and Guidelines on Distance Education

a. Philippine Distance Education Defined

A program is said to be offered in Distance Education mode if, at least, half of the total number of hours required for a degree program is offered outside of the confines of the formal classroom set-up, where student-teacher contact is normally required. Distance Education may be delivered using printed instructional materials, video, radio, or teleconferencing, with sufficient provisions for valid and reliable testing and evaluation procedures.

b. Implementing Guidelines

The Higher Education Institution

- To ensure that quality and excellence are safeguarded, only Higher Education Institutions with a program accrediting bodies in the Philippines or its equivalent, as recognized by CHED, shall be allowed to offer distance education programs, with the said accreditation status subject to specific policies as herein stipulated.

- Foreign higher education institutions desiring to offer distance education in the Philippines through extension shall be subject to the guidelines issued by CHED on "Extension classes."

The Student Entrants

- Qualified Filipino students who, for reasons of disability, workload, or distance from Higher Education Institutions, are unable to pursue higher education through normal and formal channels, may opt to enroll in distance education courses. The student must show evidence that he/she is unable to attend formal classroom instruction.

- The student must pass the entrance requirements of the institution which are similarly reflected in the Policies and Standards of CHED per degree program.

- The student must comply with all other institutional requirements of the Higher Education Institution offering the Distance Education Program.

Administration and Supervision of the Program

- The Institution shall designate Distance Education coordinators or Program Heads that qualify under the provisions of CHED standards, e.g., holders of master's degrees in the specific discipline where distance education mode is to be used, etc.

- The Institution shall provide a pool of qualified Distance Education instructional materials developers, with master's degrees in the discipline and training in instructional materials production.

- The Institution must provide for Distance Education Learning Centers, as may be necessary, in strategic places in the country, to provide greater accessibility to its clientele, and where testing and evaluation may be undertaken.

- The Institution must give provisions for efficient communication facilities to allow Distance Education students ready access to the main Institution or the coordinators of the Program.

Delivery system

To ensure the efficient and effective delivery of instruction through Distance Education, the Institution must:

- Prepare a set of well-written, well-structured, and well-tested instructional materials. These instructional materials, which are written or produced with the purpose of providing self-instruction to the students, shall be complemented by a set of books and reference materials normally required of the course. The adequacy of the instructional materials shall be judged by a panel of experts from CHED's Technical Panel for the program. In the case of audio or video materials, the Technical Panels will be assisted by an expert in Educational Technology.

- Prepare a set of validated instruments for gauging the student's progress in the course, such as examinations and tests. The school shall also indicate the frequency of such academic assessments and evaluations and the manner in which these are administered. It is required that the student presents personally to the test administrator at the time that testing shall be required. The tests' validity and reliability shall also be judged against the standards set by the Technical panel for the program.

- Have a separate library and learning resources for the purpose of distance education clienteles who may want to conduct research or actual experimentation in each of the designated Learning Centers.

- Must show evidence of regular monitoring of the students enrolled in the Distance Education program through the physical presence of its designated Distance Education coordinators in the Learning Centers on a regular basis.

- Must submit the following documents to CHED one (1) year prior to the intended operationalization of the Distance Education program:

» Faculty and Administrative support staff for Distance Education;

» Comprehensive Plan of Action for Distance Education including a detailed description of the: Screening Processes, Admission,

Retention and Promotion policies, Monitoring, Assessment and Evaluation procedures, available facilities and resources for distance education;

» Complete set of instructional materials and evaluative instruments per program for evaluation by CHED.

Graduation credentials and transfer of credits

- The school shall clearly indicate in the credentials of the students that the subject taken was in Distance mode.

- Units earned through Distance Education may be credited in other Institutions, subject to that Institution's and CHED's policies on "transfer of units." The receiving Institution shall reserve the right to evaluate the student's credentials before accepting him/her to the Institution.

Quality Audit Mechanisms

The Commission of Higher Education shall conduct periodic quality audits of the programs being operated on Distance Education Mode in the following ways:

- A quality assessment of the required instructional standards per program;

- An audit on the testing and evaluation procedures of the Institution offering Distance Education;

- Initial Permit to operate distance education courses shall be coursed through the CHED Office of Progress and Standards after initial quality assessment by the CHED Regional Offices; and,

- Regular monitoring and renewal of permits shall be undertaken by the CHED Regional Office.

2. CHED Memorandum Order No. 35, series of 2000, Updated Policies and Guidelines on Open Learning and Distance Education (OLDE).

The memorandum order includes policies and implementing guidelines on the qualification of HEIs, components, and management and administration of Open and Distance Learning.

CHED identified Centers of Excellence (COEs)/Centers of Development (CODs) and/or recognized HEIs with level III Accreditation or CHED equivalent in the program applied for shall only be allowed to offer OL/DE programs provided that they follow below policies and guidelines:

a) Components of Open and Distance Learning

Curriculum Development

An institution shall go through a two-step process to earn approval for OL/DE Programs. The process shall be implemented by the Central Office after the CHED Regional Office (CHED-RO) transmitted the application to the CHED – Office of Programs and Standards (OPS). The process includes a recommendation for approval of content from the Technical Panel for the Discipline and recommendation for approval of the delivery system from the Technical Committee for OL/DE and approval of the Commission.

The system of assessment of learners' performance in every course shall be part of the curriculum submitted to the Commission for approval.

Materials Development

The instructional materials development component of OL/DE focuses on the preparation of learning packages in print and non-print forms. Its areas of concern are: choice of media to be used; development of media designs, format, and approaches; actual technical production of prototypes including pretesting, mass production, and distribution.

Delivery Mode/Strategies

OL/DE may be delivered by way of the following media: print, radio, audio-video, cassette tapes, television, telephone, computer software, CDROM, on-line delivery services, correspondence feedback, face to face sessions, etc.

OL/DE may be delivered by autonomous OL/DE institutions or independent OL/DE departments of a conventional or traditional institute, college or university, or OL/DE departments of different institutions (consortium model).

Student Assessment

OL/DE institutions shall prepare a set of validated instruments or assessment processes on performance standards to gauge the learner's progress in the course. The frequency and manner of administration must also be indicated.

The institutions, through its duly authorized representative, shall conduct the final evaluation of the learner's performance for every course face-to-face at the Learning Center or a designated venue.

Student Support Services

The institution shall maintain faculty-student-dialogue in strategic sites and/or establish a Learning center or linkages with other HEIs to ensure greater access to its clientele for admission, tutorial, counseling, testing, and evaluation activities. It shall also provide students with the following: clear admission policies and procedures for applicants, efficient and reliable communication system and media support, library and learning resources, and evidence of regular monitoring of learners' progress.

b) Management and Administration of Distance Education and Open Learning

Program Management

The institution shall designate a competent key person who will manage the program. Applicants must satisfy the entrance requirements of the Institution. OL is only for graduate programs.

Management of OL must develop a strong institutional ethos and management systems for the institution. CHED requires ODL programs a clear institutional policy and procedures for managing information, guidance and enrollment, learning resources, mentor and learner support systems, and assessment systems.

3. CHED Memorandum Order No. 5, series of 2002, Moratorium on the Opening of Programs via the Open Learning and Distance Education (OLDE) both Print and Non-Print Mode and the Monitoring and Evaluation of all Higher Education Institutions offering OL/DE programs.

> The memorandum includes a moratorium on the opening of new programs offered via OLDE where any institutions that are found to satisfy the requirements stated in the CMO 35, s. 2000 shall be allowed to operate. Non- complying programs shall be given time to satisfy the provision. An institution with graduating students of non-complying OLDE programs in SY 2002-2003 shall request CHED corresponding special orders for graduation. The memo is also about monitoring and evaluation of all higher education institutions, both public and private, offering OLDE programs from February to August 2002, where HEIs concerned are requested to submit a list of OLDE programs being offered.

4. CHED Memorandum Order No. 27, Series of 2005, Policies and Guidelines on Distance Education. In this memorandum, guiding principles for all subjects/courses offered in distance education, qualifications/ requirements, implementing guidelines, granting authority, and monitoring and evaluation are incorporated.

> *Guiding principles.* All subjects/courses offered in distance education shall adhere to the following guiding principles: a) learner centeredness; b) rigorous and sound instructional design; c) transparency and peer review to guide informed choice; d) public responsibility and accountability; and e) quality and continuous improvement.

> *Qualifications/Requirements.* According to the CMO, only HEIs with any of the following are qualified: (1) Level III accreditation in the degree program applied for, (2) CHED Center of Excellence (COE) status in the degree program applied for, (3) certification of compliance with the CHED Quality Assurance System for Distance Education. It is also reinstituted in this CMO that a percentage requirement of at least 25 percent of total courses is offered via distance mode to be classified as distance education programs.

> *Accreditation Process.* The process of application for Government Authority to offer distance education is as presented in Figure 4.1.

Monitoring and Evaluation. It is through the Technical Panel for Distance Education (TPDE) that the CHED conducts monitoring and evaluation of the distance education programs. It assists the CHED in ensuring the quality of the programs offered through distance education by HEIs. In particular, the panel is tasked to assess the delivery system and instructional materials for distance education and make recommendations for approval of CHED. It is upon the recommendations of the TPDE that the CHED can grant distance education programs of HEIs the permit to operate and recognition.

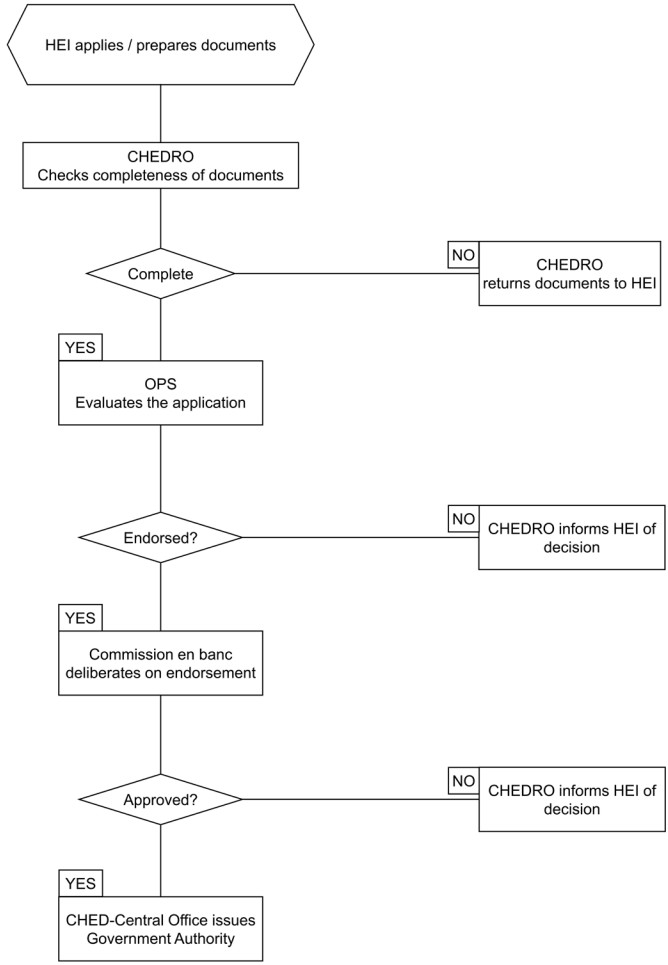


Figure 4.1. Process of Application for Government Authority to Offer Distance Education Programs.

b. Transnational Education

The CHED Policies and Guidelines on Transnational Education helped encourage in-bound Transnational Education (TNE). CHED issued the following CMOs on TNE in 2013 and 2016, respectively.

1. CHED Memorandum Order No. 06- S-2003_Policies and Guidelines on TNE

> In accordance with the mandate of Republic Act (RA) No. 7722, otherwise known as *Higher Education Act of 1994, "*pursuant to the pertinent provisions of the 1987 Constitution, the Education Act of 1982, the Manual Regulations for Private Schools and by virtue of CHED Resolution No.048 dated February 17, 2003, and other relevant policies and guidelines on the establishment of schools in die country, this set of POLICIES AND GUIDELINES ON TRANSNATIONAL EDUCATION is hereby adopted and promulgated by the Commission for the guidance of all Higher Education Institutions (HEIs)."

2. CHED Memorandum Order No. 62- S-2016_Policies, Standards and Guidelines (PSGs) for TNE

> Policies, Standards, and Guidelines (PSGs) for TNE
>
> a. The *Higher Education Act of 1994* created the CHED and provides that the powers and functions of CHED shall include setting standards and monitoring and evaluating programs and institutions of higher learning.
>
> b. It is the policy and intention of CHED to internationalize Philippine higher education in order to facilitate the development of a human resource base that is responsive to the changing demands of the 21st century.
>
> c. CHED recognizes that globalization and the liberalization of trade in goods and services worldwide have facilitated the growth in higher education internationalization, including TNE, by which is meant higher education that is delivered in a country other than the one where an awarding institution is based.

d. These phenomena, together with developments in information and communication technologies, promote access to foreign qualifications and encourage Philippine universities, colleges, and training institutions, to offer their programs and qualifications abroad, in partnership with counterparts overseas.

e. CHED is guided by the principles adopted by the UNESCO/Council of Europe in the "Code of Good Practice in the Provision of Transnational Education" (2001) and the "Revised Code of Good Practice in the Provision of Transnational Education" (2007). (See Annex 1 for the text of the Revised Code.)

f. CHED honors the Philippine commitments to bilateral, regional, and multilateral trade agreements, such as the General Agreement on Tariff, Trade in Services (GATTS), and the ASEAN Framework Agreement on Services (AFAS).

g. CHED recognizes Article 6(f) of the 1963 Vienna Convention on Consular Relations regarding the role of consular offices to act as a notary in the authentication of relevant documents.

h. CHED promotes ODeL through tertiary education as an appropriate, efficient, and effective system of delivering quality higher and technical educational services in the country (RA 10650).

i. CHED encourages the utilization of quality Open Educational Resources (OERs) to promote universal access and the transmission of information and knowledge.

j. It is crucial to safeguard the interests of legitimate education providers and the general public through TNE.

k. The ability of TNE arrangements and operations to provide higher education that meets human, social, economic and cultural needs depends on safeguarding the quality of Philippine higher education provision and qualifications.

l. Quality assurance, accreditation, and similar activities protect the interests of stakeholders in TNE, such as:

1) governments
2) higher education institutions
3) academic staff and students
4) quality assurance and accreditation bodies
5) academic recognition bodies
6) professional bodies
7) business and industries
8) communities of practice
9) individuals working abroad (e.g. Overseas Filipino Workers, migrants, etc.)

m. The Commission hereby promulgates the Policies, Standards and Guidelines on TNE. This CMO shall describe the following:

1) General Objectives
2) Categories of TNE for the purposes of these PSGs
3) Scope: TNE Offshore and TNE Onshore
4) General Implementing Guidelines, including Quality Assurance Procedures
• TNE Onshore conducted by Foreign Higher Education Providers (FHEPs)
• TNE Offshore conducted by Philippine Higher Education Institutions (PHEIs)
5) Implementing Guidelines, including Quality Assurance Procedures (Internal Quality System framework)
6) Registration Guidelines and Procedures
7) Announcements on TNE
8) Revocation of Authority to Operate TNE

c. Open and Distance Learning (ODL)

The Republic Act (RA) 10650, or the "Open Distance Learning Act" signed by President Aquino III on December 9, 2014, seeks to expand and further democratize access to quality tertiary education through the promotion and application of open learning as a philosophy of access to educational services, and the use of distance education as an appropriate efficient and effective system of delivering quality higher and technical educational services in the country. The law mandated CHED to assist HEIs in developing their capability to offer open learning distance education programs. It also mandated the University of the Philippines to lead in the development of

the ODL and design model curricular programs that will serve as prototype programs to be implemented by other higher educational institutions.

RA 10650 is an act expanding access to educational services by institutionalizing open distance learning in levels of tertiary education. The act is anchored on the guiding principles for open distance learning; admission and other academic policies and requirements; program, curriculum, and course development offerings and requirements; mode of delivery; support to ODL programs; and support to students of ODL.

1. Guiding Principles for ODL

It is mandated that all courses or subjects offered in the ODL mode shall adhere to the following principles:

a) *Learner Centeredness* – ODL programs shall focus on the needs of the learner and the goal of facilitating independent learning;

b) *Quality and Relevant Programs* – ODL programs shall be equivalent in challenges and depth to the conventional classroom or traditional programs in nonconventional delivery;

c) *Transparency to Guide Informed Choice* – ODL implementers shall make information about their programs, particularly on the curriculum and delivery system, instructional materials development, delivery mode/strategies, student support services, and other relevant information available to accrediting bodies, academic peers, regulators, and students. Updated information shall be made accessible through such media as the internet;

d) *Peer Review* – A review by experts in ODL to determine the acceptability of the course or subject shall be institutionalized following the criteria set by the CHED and/or the Technical Education and Skills Development Authority (TESDA), as applicable;

e) *Public Responsibility and Accountability* – Implementers shall heed the public impact of ODL programs and shall always exercise due diligence in avoiding harm to program stakeholders, especially students. Consumer protection, in particular, shall be a priority because of the high value that Filipinos put on education; and,

f) *Quality and Continuous Improvement* – An HEI or post-secondary school shall embed in its program framework the proactive needs assessment of students and stakeholders in terms of the ODL program planning, implementation, and evaluation. The interaction of students' needs, interests and perceptions, faculty interests and skills/technology available, and Filipino culture should be carefully examined, explored, and monitored to continuously improve all aspects of development and delivery.

2. Admission and Other Academic Policies and Requirements

Admission and other academic policies and requirements in all HEIs and post-secondary schools offering ODL programs shall follow the minimum policies, standards, and requirements set by the CHED and/or TESDA, if applicable.

3. Program Curriculum and Course Development Offering and Requirements

It must be ensured that the learning outcomes of curricular offerings using ODL mode are clearly articulated in terms of competencies, skills, and behavioral attributes and shall conform to respective policies, standards, and guidelines for ODL set by CHED and/or TESDA, if applicable.

4. Mode of Delivery

The ODL programs may be delivered using information and communications technology and other approaches, such as Print, audio-visual, electronic/ computer technology and virtual classrooms, and face-to-face sessions.

5. Support to ODL Programs

CHED and TESDA shall provide support to higher education institutions and post-secondary schools in developing and providing high-quality programs and offerings in ODL education. This support shall include the following:

a) Training of qualified teachers, providers, and other professionals;

b) Relevant curriculum, courseware, and program development;

c) Development of appropriate learning materials;

d) Cyberinfrastructure planning, resource sourcing, and implementation;

e) School operations and management planning and development, including support services, learning management systems, instructional design and development, and research on emerging technologies; and,

f) Formal linkages and networking with institutions which may serve as learning or testing centers.

6. Support to Students

Any student enrolled in ODL programs under the RA 10650 shall have access to all privileges, opportunities, and entitlements that a student, similarly situated under the conventional system of instruction may have access to, including getting scholarships, grants-in-aid, and loans from the government or government-administered funding sources. Specifically, HEIs and post-secondary schools engaged in ODL programs shall be tasked to perform the following student support services:

a) Provide clear admission policies and procedures for applicants;

b) Maintain faculty-student dialogue and interactivity through virtual classrooms linked electronically or through established learning centers, or both, whichever may be feasible, to ensure greater knowledge sharing, access to counseling and other support services;

c) Provide for an efficient and reliable communication system, feedback mechanism, especially on learners' academic progress, and multimedia support;

d) Show evidence of regular monitoring of learners' progress; and,

e) Provide a wide range of relevant, updated, and accessible learning resources that are easily accessible to students.

The Role of University of the Philippines Open University (UPOU)

The University of the Philippines, through UPOU, shall assist and provide expertise to the CHED and the TESDA in the performance of its functions. As such, it shall do the following:

a) Provide leadership in the development of ODL in the country and the appropriate use of information and communications technologies in support of quality tertiary education;

b) Promote best practices in ODL in the Philippines;

c) Share knowledge through informed and innovative research and other development activities related to ODL through its exemplar policies, programs, materials, learning management systems, guidelines, and offerings;

d) Provide technical assistance to CHED and TESDA in matters relating to ODL, particularly in the development of basic curricular design and formulation of national policies, standards, and guidelines for ODL programs and institutions in the country;

e) Design model curricular programs which shall serve as prototype programs upon which similar programs to be offered by other HEIs and post-secondary schools in the country shall be patterned after;

f) Develop and promote appropriate information and communications technology to facilitate quality ODL programs in the country;

g) Design quality learning materials and objects, both in print and multimedia formats, for higher education and post-secondary instruction in the country;

h) Make instructional materials for ODL programs accessible to the public through collaborative arrangements and other appropriate mechanisms;

i) Assist other interested educational institutions in developing their ODL programs, courses, and materials for specific learner groups or the public at large;

j) Design and implement a continuing program to develop high-level expertise in the fields of ODL in the Philippines through quality higher education degree programs and technical-vocational programs through either or both ODL and face-to-face modes of instruction and training; and,

k) Help capacitate ODL teachers and practitioners through capacity building and professionalization programs.

UP Open University's MODEL

At UPOU, it has long been decided to maximize the affordances provided by the web by being fully online in 2007, with the courses as resource-based packages, and to make online teaching the main approach to the instructions. UPOU's teaching and learning approaches have been shaped by its immediate context and developments in the fields of open learning, distance education, and e-learning. These ideas were approached and encapsulated in the worldview which was termed Open Distance e-Learning (ODeL). ODeL draws from the philosophy of openness, inclusion, resource sharing, access and equity of open learning, learner-centeredness, flexibility, active learning of distance education, interactivity, ubiquity, connectivity, and constructivist view of e-learning. These affordances and features are infused with the values that underpin the Universitas: excellence, academic freedom, humanism, intellectual pluralism, democracy, and service to society. All these elements are embedded and facilitated by networked information and communication technologies, and make-up the Open Distance e-Learning for Social Transformation. It is the university's framework in producing learners who have the ability to seek new information from different sources, translate this information into applicable knowledge, and communicate this knowledge in various forms and situations. They should be able to work in different cultural contexts as well. ODeL, with its affordances, can help address the challenges of education in the 21st Century.

UPOU started offering MOOCs in 2013. Today, they are actively tapped by the industries, CHED, and the University System to help pave the gap between the academe and industry, and to reach out to our overseas Filipino workers all over the world through the development of multimedia materials, tapping ICT and the Web 2.0 that are produced by Philippine scholars, to be

shared nationwide and to the world. They are likewise mandated to develop improved versions of OERs and MOOCs. On the drawing board for the next few months are approximately one hundred thirty MOOCs.

The purpose of MOOC is anchored on public service. It caters to a diverse set of learners from different fields of disciplines and backgrounds. UPOU has already offered courses on technopreneurship; business process management; child rights protection and promotion; inter-local government cooperation; Philippine arts and culture; art in the ASEAN; Filipino language, culture, and society; and oral communication and conversational fluency in English, among others. In terms of course credits, the Commission on Higher Education allowed UPOU's business process management MOOCs, under the Online Service Management Program (eSMP), to be credited under the tertiary education curricula of degree programs in information technology and management. This means that students from other universities taking a degree program in information technology and management can enroll under the UPOU MOOCs and upon completion, apply the credits earned from the course toward earning the degree (Romualdo, 2017).

There are many other institutions in the Philippines that offer online programs. TESDA, for example, offers online programs that aim to make technical education more accessible to Filipino citizens and provide an effective and efficient way to deliver technical education and skills development services to a wide range of learners at a lesser cost.

HEIs in the Philippines offering distance education programs are guided by the following principles for open and distance learning, as written under the RA 10650 or the Open and Distance Learning Act of 2014: a) Learner Centeredness, b) Quality and Relevant Programs, c) Transparency to Guide Informed Choice, d) Peer Review, e) Public Responsibility and Accountability, and f) Quality and Continuous Improvement.

The Survey Results

The questionnaire was designed to gather data and information about the state of practice of open education in the Philippines. Open education in the questionnaire was defined as any initiative, program, project, or policies related to the development and deployment/offering of open educational resources/open content, open courses/MOOCs, open-source software, open educational platform, and open learning.

The survey was conducted in 2018 by sending the questionnaires to the instructors and students online through Google forms.

a. Knowledge and Perception about Open Education

The first question asked was whether they understand what open education means. It is encouraging to see that the majority of respondents (both instructors and students) claimed that they know what open education is. As shown in Figure 4.2, 90% of the instructors and 94% of the students answered yes to the question.

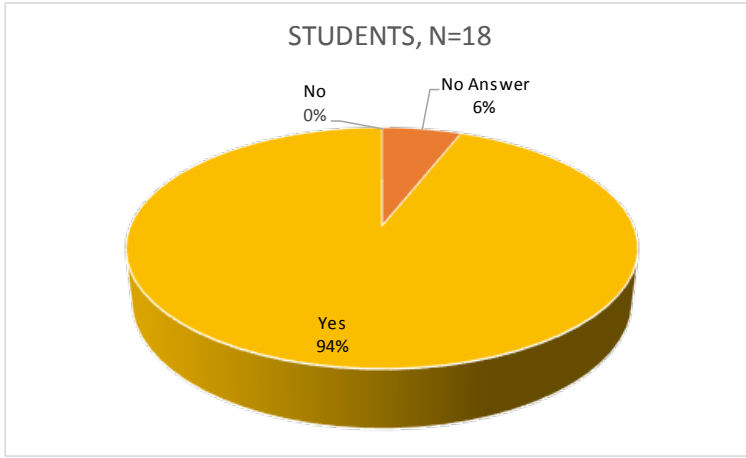


Figure 4.2. Knowledge about Open Education.

The next question was intended to see the respondents' perception about open education. They were asked to select any of the given options which they believe are associated with the field of open education. These include:

- Free education,
- Education with low cost,
- Beneficial for society,
- Government program for the people,
- Free software for education,
- Free books,
- A philosophy about education for all,
- Non face-to-face education, and
- Online education.

As shown in Figure 4.3, the majority of the respondents (both instructors and students) selected 'A philosophy about education for all'. This shows that instructors and students believe that open education is a philosophy to ensure access to education for all. Furthermore, most of the instructors and students also believe that open education is 'beneficial to society'.

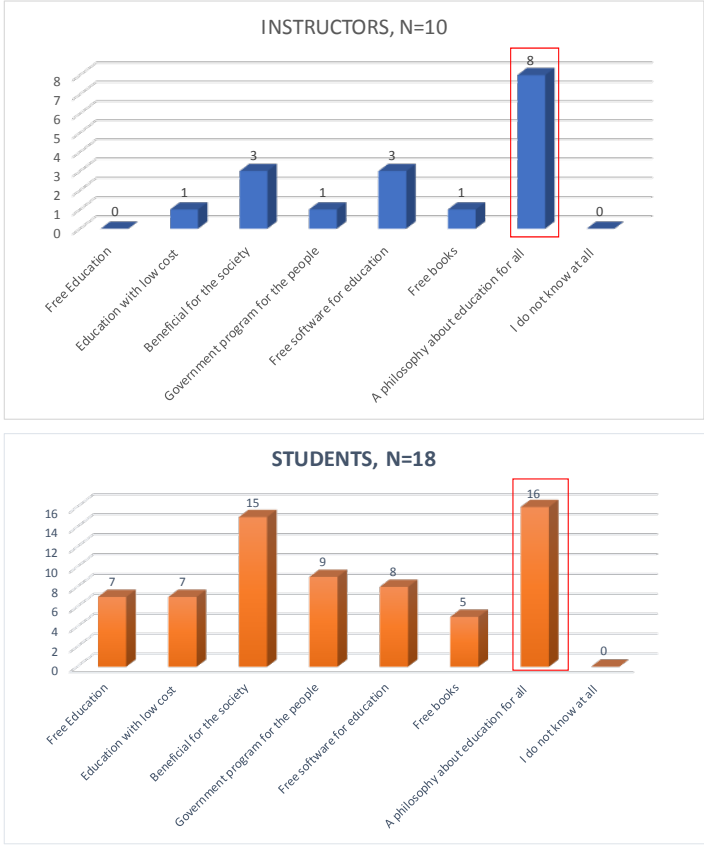


Figure 4.3. Perceptions about Open Education.

When asked about their opinion on open education in the Philippines, 100% of the instructors and 67% of students claimed that there is some open education existing in the Philippines. Moreover, there are 33% of the students who believe that there are many open education practices existing in the Philippines.

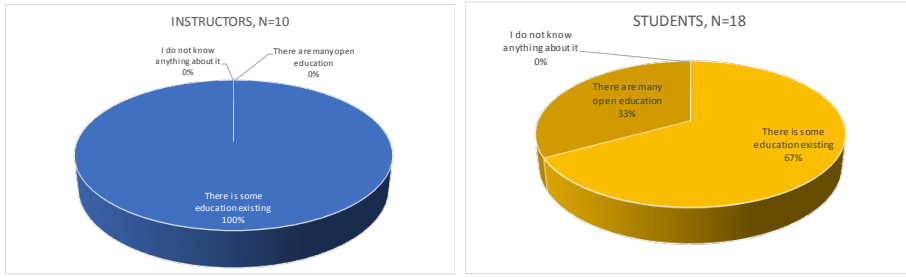


Figure 4.4. Knowledge of Open Education in the Philippines.

b. Involvement in Open Education Program/Initiative

As for the instructors, we asked whether or not they know if their institution had ever been involved in or has initiated an open education initiative. The answers showed that 80% claimed to know that their institution had been involved in any open education practice (Figure 4). They were further asked to specify the nature of openness in the practice, whether it was (1) no entrance test, (2) no time limit to study, (3) no age limit, (4) free, or (5) no prerequisite. The responses are shown in Figure 4.5.

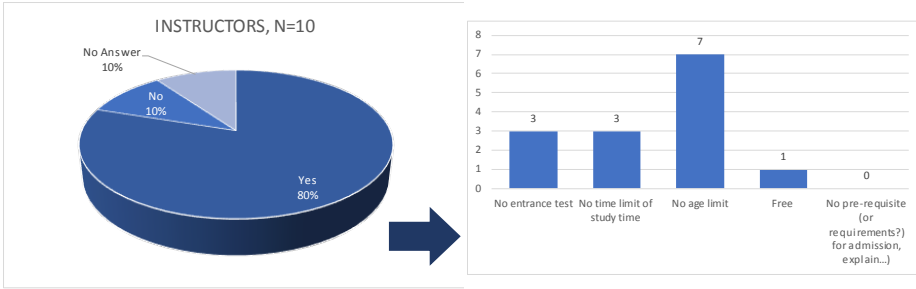


Figure 4.5. Instructors' Knowledge on Institution Involvement in Open Education.

c. Challenges in Practicing Open Education

Instructors and students were asked about the challenges they see in practicing open education. Below were their answers.

Instructors:

- Internet accessibility, location of those who can benefit more

- Availability of reliable materials
- Being a constituent of the UP system, how much do we comply with the rules/policies of UP which are not that open? How do we maintain openness while upholding the things UP stands for?
- Quality Controlling
- internet accessibility to far-flung areas
- Poor access to internet of students from remote areas of the country
- The challenge for teachers is the same as if the programs would be offered in residential mode, although teachers must see to it that they allocate at least the same amount of time to these classes as they would with residential classes. Moreover, checking on whether or not the students themselves are doing the classwork requires different types of assessment instruments. For the students, it takes discipline to spend the necessary amount of time to satisfy class requirements.
- Slow internet connection and limited internet coverage
- Self-regulation of students; internet speed; teacher capability

Students:

- Budget, infrastructure, exposure, accessibility
- The quality of internet connection in the country, the mental and emotional readiness of students to conduct studies via open education, and resources
- Open Education for Doctorate in Psychology
- Cost, Efforts needed to be done to properly implement the program, Public Relations efforts
- Internet connection is one of the hindrances in continuing open education in the Philippines
- One of the challenges I see in practicing open education is that if there is this assurance of the quality of education and of the educational materials being taught and provided in the programs.
- Not many people are aware of what Open Education is and how they can utilize it so they can educate themselves.
- Existence of miscellaneous fees, schools that are not accessible for other students (those living in far-flung areas), limited internet access, some are more interested to work to earn a living for their families
- Infrastructure and qualified educator

- Self-Study and Student-Teacher Relationship
- Self-discipline
- bandwidth (in the country), cross-language instruction, inclusion for PWD, sustainability (since a lot is free)
- Teacher-student interaction in terms of face to face learning
- The availability of some references
- Lack of engaged instructors. Unable to use it in securing related work because the certificate of completion would either be delayed or, in my case, long forgotten by the institution.
- Not widely accepted in the country's educational system. Accreditation to traditional schools is difficult such as furthering your studies
- internet reliability, cost of education and internet service providers, time management

d. Hopes/Wishes for Open Education in One's Country and Institution

Instructors:

- More accessibility on materials and course sites
- I hope for growth in how open we can be and for more institutions to practice open education.
- Make it more.
- With fervent hope that open education should be avail by most Filipinos anywhere in the archipelago and the world.
- Available for all
- Open education would be further encouraged if internet connections in the country were better. In addition, better integration of the financial system will facilitate registration and enrollment in programs.
- To have a wider variety of graduate courses, especially PhDs
- That the government allocates enough funding to ensure maximum participation; involve the private sector; and countrywide awareness of its benefits

Students:

- Accessible to most, if not all
- I hope that open education institutions can also be more interactive through videos and other uses of media like edX and other MOOCs.

- An online degree for doctor in psychology
- That a lot more citizens will be made aware of it and be better educated about it, enabling them to have more opportunities to embrace it or take a chance on it.
- All citizen must contribute and enroll in different open distance education
- I hope that the open education offered in our institution and in the country as a whole will offer more courses for individuals interested in this kind of learning.
- I hope that our universities will develop their respective Open University programs and our government will provide support in providing awareness and establish programs related to Open Education.
- More accessible education, education where students do not have to stay inside the classroom for almost 8 hours a day, education that will bring out the best in each student and help them have or develop good values
- Stability of internet connection
- For the instructors to be more 'open' with concise information and mode of instruction
- Affordable tuition fee
- More people who are working would consider this format for advanced studies.
- That this is credited as part of adult learning- degree/non-degree.
- Offered as blended learning in universities/ credited units (taking biochemistry course in Coursera would be credited in universities, for example)
- More curriculum options
- I hope there will be more schools that are offering open education.
- With many students opting to study in open education, acceptance will be improved.
- I wish to see open education as an option and opportunity for all students to be explored and hope it may be offered massively through a regional campaign, that there is this kind of open education in the ASEAN region where people can conveniently learn in their own time and location.

e. Beliefs on The Role of open Education in Society

Instructors:

- Yes. The more educated Filipinos will be, the better decision makers we will be as a nation, and that will translate to better leaders and policies
- Yes. it gives opportunity for other people who can't avail otherwise.
- Yes. Open education for all!
- Yes, I believe. Because it will give more chance for someone who have no chance to learn in the residential university.
- Yes. This will enable the busy people to learn new knowledge and skills without attending traditional classes, empower housewife to learn without leaving their children, and enable grassroots people (e.g. farmers) to improve their skills and increase their earnings. Thus, open education is necessary.
- Yes. It makes education more accessible for those who worked even before finishing a degree
- Open education contributes to national and social development as it provides opportunities for those who cannot afford to spend time, or relocate to where it is convenient, to sit in on residential programs. It provides a cost-effective alternative for those who may need these types of educational options.
- Yes, it allows would-be students to have access to good education wherever they may be
- Yes, because it should not only be cheap, but it is a platform that could ensure quality education, and insti discipline among Filipinos. Students also realize that the internet is not only used for social media purposes.

Students:

- Yes, it will be essential to nation-building and beneficial for every individual
- Yes, it gives chance to other people to have their own pace in studying especially those who are working students.
- Yes, because education in general is important, but a type of education with no significant barriers is much more helpful for a nation and its citizens, most especially for developing countries like The Philippines.

- Yes, it is important because they are open to other methods he/she wants.
- I believe that open education is good for society and nation because it is educational-friendly that it provides learning in a very flexible time, learning space and resources.
- Open Education will be very beneficial for our country as it will enable more people access to education, and it will equip them with more skills that are relevant in today's fast-paced economy.
- Yes, because it will nurture one of the most important factors of production (human resource) and learners with proper attitude and appropriate skill will contribute greatly to nation-building and assist in creating a happy and safe environment for the next generation
- Yes, it expands opportunity to learners who are not part of the formal education.
- Yes, since open education is beneficial to those people who really wanted to learn more with hectic schedule
- Yes. Free, a lot are self-paced. Self-driven (not all needs grading) so all learning is dependent on the drive of the learner. It is up to individuals to literally take as much as they can in course work.
- Yes, because you can have continuous education even if you have a work. You can have it wherever you are.
- No. I would rather pay for such and not waste time on free education.
- Yes. not anyone has the access to quality education, open education can be an avenue for them to learn new skills that will make then attune and has the chance to be productive.
- It is good for all; we must embrace the evolving society and the internet of all things. People should not be stuck in the four corners of a classroom. People should explore. Students, teachers and the society grow together with technology. Philippine education should continue to promote open education as part of a continuous improvement of our nation as well.

ROLE OF OPEN EDUCATION IN NATION'S HUMAN RESOURCE DEVELOPMENT

Open Education is seen as an important component of national development as it ushers in education for all, making use of technology-mediated teaching and learning. With the harrowing traffic in the streets of cities in the Philippines that wasted an estimated billions of pesos every day, the mobility of learners is impeded. Because of the lack of classrooms in the

islands for education, the existing facilities are reconfigured into learning commons; we see the direction of encouraging alternative education for human resource development. Seventeen higher education institutions are offering DE programs. The more comprehensive DE providers are: the University of the Philippines Open University (UPOU) an autonomous university of University of the Philippines System, and which has the most number of DE programs; the Asian Institute for Distance Education; CAP College; and the Southeast Asia Interdisciplinary Development Institute. The other institutions are conventional universities offering a few of their programs by way of DE. Most of the DE provision is at the graduate level.

The concept of open education is implemented in different institutions in varying degrees. UPOU, with its openness, may benefit from the move for strong human resource development, adopting the culture of sharing through the familiar digital information communication technology. The movement of open educational resources, from one country to another and to many others, expands network and connectivity, foreshadowing a mature connectivity scenario in the web, benefitting the Filipino overseas workers. UP Open University's early adoption of a full-online Open Distance environment in 2007 has helped in creating an environment through its theorizing, research, and practice of ODeL. It has encouraged the development of free MOOCs and OERs in the Philippines that helped address the training and education needs for human resource development.

The enormous development of industries highlights the need for a Filipino workforce responsive to the changing times; more specifically, a need for a well-prepared and equipped Filipino workforce to move in the areas of technology-driven computer-based workplaces.

UPOU's mandate includes the strengthening of the Filipino workforce through Distance Education. The rationale for the establishment of the UP Open University was to widen the reach of quality education and help enhance higher education in the Philippines through distance education. The Philippines has a population of 104 million, and it is consistently growing. As educators, we have to think about the 700-800 thousand high school student graduates every year who are not given the opportunity to take higher education, the millions of adult Filipinos in our country, and around 10 million Filipinos abroad who need professional continuing education. Locally, we cannot always afford to replicate our institutions physically. We cannot afford to send our professors to every island in our country, so we,

therefore, have to make technology work for our higher education system. To be able to reach Filipinos all over the country and those abroad, it is imperative that technology-mediated education be tapped and maximized. UPOU has likewise moved towards encouraging digital multimedia publications systems in its UPOU networks and the internet television of the University of the Philippines, TVUP. Both are production units, digital repositories for OERs, and digital publication systems. UPOU has digitized its operations from registration, student records, student support, course development, and distribution system to reach all those who have chosen to equip themselves with the competencies necessary to face the challenging environment in a diverse, complex, and expanded digital world.

Today's response of open universities for human resource development, coupled with the burgeoning development of industries in areas of robotics, AI, nanotech, biotech, quantum computing, 3D printing, Internet of Things (IoT), autonomous vehicles, energy storage, etc., sets us in a state of unimaginable accelerated exponential growth in human resource needs in varied and diverse fields. But what is clear is the rise of the use of technology in these varied areas as well. There is the need for awareness to push for a paradigm shift into e-form; e-pedagogy for technology-mediated education has truly emerged.

DEVELOPMENT OF SOCIAL AND POLITICAL ACCEPTANCE

Social acceptance of Open Distance Learning has been triggered by the proliferation of foreign higher education institutions tapping into the popular online degree earning processes. This is known as Transnational Education (TNE).

The internet has broken state and nation boundaries, and each country has responded to this phenomenon in many different ways. Every day, the Philippines is losing billions of pesos due to traffic congestion in its cities. The mobility of learners is impeded. Because of the lack of classrooms in the islands for education, the existing facilities are being reconfigured into learning commons; we see the promise of alternative education. Being the country that has the largest number of cellphone users, the Philippines may harness cellphone, ODeL and other educational alternatives, as a viable tool for education and work-from-home. The openness in the use of blended, flipped classroom, and flexible learning by traditional face-to-face universities is likewise an indicator of openness in our education system.

The supervision of CHED, through its Technical Panel on Transnational and Distance Education (TPTNE), has helped ensure the quality of Distance Education and Open Distance Learning programs in the country. To ensure the quality of Philippine ODL programs, CHED strictly implements that only Level 3 accredited programs can be offered in this mode. This, therefore, helps in proving that having wider access to quality education is attainable and could sit well with the concept of "equity and quality".

Political acceptance of Open Distance Learning in the Philippines can be explained by discussing the milestones in its history, and in the history of the University of the Philippines as a system, the only national university in the Philippines, now more than a hundred years old. It is a system with eight autonomous universities under its wing. The University of the Philippines, under the Republic Act 9500, was given the mandate as a national university. It is mandated to help improve the quality of higher education in the country by generating knowledge and sharing this reservoir of information and data to the public. Most importantly, the university is meant to create a culture of life-long learning for the general public. As the country's top university, the University of the Philippines ensures that the quality of ODeL offered by UP Open University is at par with the quality of education offered in its other constituent units.

The fifth autonomous university of the University of the Philippines established 25 years ago is the UP Open University, clearly mandated to widen the access to quality higher education, to strengthen the Filipino workforce, and to contribute to the development of higher education in the country through distance education. Its mandate is made possible through the engagement of affiliate faculty coming from the pool of UP faculty and lecturers who are known experts in their fields. This is on top of UPOU's regular faculty. In 2007, it offered its programs fully online, compelling the university to study and harness the potential of the internet. The use of the same technologies and science, coupled with a multi-disciplinary social and cultural bend with a shift of lens, can be used to view things from the Filipino perspective.

The political acceptance is likewise seen through its government's executive branch, education institutions, and the legislative branch, with laws affecting the perception of ODL. There has been close monitoring of ODL, earlier known as OL/DE. In the year 1994, Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994," opening of programs was

made via OL/DE, in both Print and Non-Print Mode. However, in 2002, CHED Memorandum Order No. 05 Series of 2002 declared a moratorium on the opening of programs via the Open Learning and Distance Education(OL/DE) effective SY 2002-2003, pending the results of the first monitoring and evaluation to be conducted by the Technical Committee of Reviewers on the Open Learning and Distance Education (TC on OLDE). Strict monitoring and evaluation of all higher education institutions, both public (state universities and colleges) and private, were made for OL/DE programs from February to August 2002. In view of this, concerned HEIs were requested to submit a list of OL/DE programs being offered.

FUTURE DIRECTION OF OPEN EDUCATION IN THE PHILIPPINES

Currently, in the Philippines, the focus of higher education institutions on open education is on quality as the policy. On the other hand, standards and guidelines are directed towards regulation. UPOU, on its part, is actively promoting its role specified in RA 10650 (the Open Distance Learning Act). It is mandated to assist CHED and TESDA by providing leadership in the implementation of open distance learning in the Philippines, and by establishing an ODeL community of practice through partnerships, collaborative projects, and conferences in ODeL to ensure continuing efforts on promoting quality.

As efforts are exerted towards the quality of open education in the Philippines, the concept of equity likewise needs to be equally emphasized. Quality open education should be accessible to all. There is awareness and recognition that technology-mediated education through ODeL will have a central role in the future. As UPOU leads the way for the practice of open education, it should take an active role in capacitating higher education institutions to be technology-enhanced, in aid of the government's efforts in promoting equity through RA 10931. The RA No. 10931 is an act promoting universal access to quality tertiary education by providing for free tuition and other school fees in state universities and colleges, local universities and colleges, and state-run technical-vocational institutions, establishing the tertiary education subsidy and student loan program, strengthening the unified student financial assistance system for tertiary education, and appropriating fund known as the "Universal Access to Quality Tertiary Education Act".

With the balance of quality and equity in open education, the ultimate vision of lifelong learning for all as a way of life is in sight.

REFERENCES

Commission on Higher Education. (1995). *Policies and Guidelines on Distance Education* [CHED Memorandum Order No. 27, Series of 1995]. Commission on Higher Education: Pasig City, Philippines

Commission on Higher Education. (2000). *Updated Policies and Guidelines on Open Learning and Distance Education (OLDE)* [CHED Memorandum Order No. 35, Series of 2000]. Commission on Higher Education: Pasig City, Philippines

Commission on Higher Education. (2002). *Moratorium on the Opening of Programs via the Open Learning and Distance Education (OL/DE) both Print and Non-Print Mode and the Monitoring and Evaluation of all Higher Education Institutions offering OL/DE programs.* [CHED Memorandum Order No. 5, Series of 2002]. Commission on Higher Education: Pasig City, Philippines

Commission on Higher Education (2003). *Policies and Guidelines on Transnational Education.* [CHED Memorandum Order No. 6, Series of 2003]. Commission on Higher Education: Pasig City, Philippines

Commission on Higher Education (2005). *Policies and Guidelines on Distance Education* [CHED Memorandum Order No. 27, Series of 2005]. Commission on Higher Education: Pasig City, Philippines

Commission on Higher Education. (2016). *Policies, Standards and Guidelines (PSGs) for Transnational Education (TNE)*. [CHED Memorandum Order No. 62, Series of 2016]. Commission on Higher Education: Pasig City, Philippines

Republic of the Philippines (1994). Republic Act No. 7722: *Higher Education Act of 1994.* Retrieved from http://www.officialgazette.gov.ph/downloads/1994/05may/19940518-RA-07722-FVR.pdf

Republic of the Philippines (2008). *Republic Act No. 9500: University of the Philippines Charter of 2008.* Retrieved from https://senate.gov.ph/republic_acts/ra%209500.pdf

Republic of the Philippines (2014). *Republic Act No. 10650: Open Distance Learning Act.* Retrieved from https://www.officialgazette.gov.ph/2014/12/09/republic-act-no-10650/

Republic of the Philippines (2016). *Republic Act No. 10931: Universal Access to Quality Tertiary Education Act.* Retrieved from https://www.lawphil.net/statutes/repacts/ra2017/ra_10931_2017.html

The State of Open Education Practice in Thailand

Chalabhorn Suwansumrit, Suruchada Suban na Ayuthaya, & Chaiyong Brahmawong

CHAPTER 5

BACKGROUND

For about half a century, Thailand has gone through various changes in the implementation of open and distance education. Major changes were mainly affected by the use of a telecommunication network with the full use of satellite communication, the Internet, and the establishment of new DE providers using interactive web-based instructional systems. Most important of all is the Education Law (1999) in pursuance of Article 40 of Thailand's Constitution of 1997 requiring the fair shares and distribution of telecommunication, radio, and television frequencies for education and human development.

National Background Information

Thailand is located at the center of mainland Southeast Asia, with a land area of 198,456 square miles (514,000 sq. km). Thailand is bordered by Laos and Myanmar in the North, Laos, and Cambodia in the East, Myanmar and the Andaman Sea in the West, and Malaysia in the South. A country with a constitutional monarchy since 1932, Thailand has His Majesty the King as Head of State, and Prime Minister as Head of the government. Legislature is enacted through the National Assembly.

Thailand is under a market economy with an estimated Gross Domestic Production growth rate of 4.2% (1999). Exports of agro-industrial products, such as rice, textiles, and the tourist industry account for the major sources of national income. Thailand has a population of 66.34 million (January 2019), 17.33% of which are under 15, with a growth rate of 0.3% (2017). About 9.6 million clusters in Bangkok (2018), while 90% of Thai people live in rural

areas. The majority of the people are engaged in agriculture, forestry, and fishing. Men and women are treated equally in terms of job opportunities and social status. The medium of instruction is Thai, with its own writing system which, according to the ancient inscription on the sandstone and stone plates found at the Koobua village[1], was developed 6,665 years ago[2]. Thus, the Thai writing system was not derived from Pali and Sanskrit as earlier believed but just the reverse. Foreign languages are not allowed to be used as a medium of instruction except in international schools.

a. Educational Systems

Thailand's Educational Systems were changed in three periods according to legislative enactments: (1) before the enactment of the National Education Act of 1999, (2) during the present National Education Act of 1999, and (3) the proposed Educational Reform of 2017.

Before the enactment of the National Education Act of 1999, education in Thailand was handled was by three government agencies, namely The National Education Commission (NEC), Ministry of Education, and Ministry of University Affairs. NEC is in charge of national educational plan and educational policies; The Ministry of Education is in charge of formal, non-formal, and vocational education, teacher training, religious affairs, fine arts; and the Ministry of University Affairs is in charge of higher education.

During the present National Education Act of 1999, after July 2003, in compliance with Thailand's Education Law of BE 2542 (1999), all three educational agencies were incorporated into one organization, i.e. Ministry of Education. Thailand's general educational system consists of 6:3:3 with six years of compulsory elementary education (Age 7-12), three years of lower secondary education, and three years of upper secondary education. Pre-school education is also available for children ages two to five. The literacy rate is 97%. Higher education (Bachelor, Master, and Doctorate degrees)

[1] Koobua village is the site of Rajapli, a former capital of the Thais for more than six thousand years.

[2] According to the inscription on the sandstone now kept in one of the temples in Bangkok, Thai writing called Lai Sue Thai was invented by Khun Sue Thai, a Thai King who ruled Muang Thong (Suwannabhumi), assisted by his eldest brother, Khun Khom Thai, who, 15 years later, invented another version of Thai writing called Lai Khom Thai. He remained teaching Thai and learning the languages, with some modifications, until the present times. There are three major dialects: Southern, Northern, and Northeastern. People from other parts may understand the different dialects without much difficulty.

is provided by 79 public universities and institutes, and 21 community colleges. There are 75 private colleges and universities. It usually takes 4-8 years to complete a bachelor's degree, 2-5 years to complete a master's degree, and 2-5 years to complete a doctorate degree. Students with higher vocational certificates or associate degrees may take only 2-4 years to get a bachelor's degree. Open and distance education institutions are available allowing the students to spend 4–12 years to complete a bachelor's degree.

Teacher training is provided by various Faculties of Education in national and private universities, and 38 Rajabhat Universities in the Ministry of Education offering a variety of certificates and first degrees in Education, Management Science, Sciences, Humanities, and Communication Arts. The technical and vocational education is provided by 120 technical colleges and schools in the Department of Vocational Education, and nine Rajamangala University of Technology under the Ministry of Education.

In addition, there are schools and higher education institutions operated by other ministries, such as the Ministry of Defense, Ministry of Interiors, Ministry of Public Health, and Ministry of Agriculture. Non-formal education is provided by the Department of Non-formal Education, offering functional literacy programs, as well as normal elementary and secondary education programs via distance learning and face to face schooling.

The proposed Educational Reform of 2017 was proposed by two groups: The People's Educational Reform (PER) and the Independent Educational Reform. The PER was incorporated by Article 42 of Thailand's National Constitution comprising 360 members forming a social media Line Group in 2017. The PER, through exchanges of opinions to identify problems and needs for educational reform of Thailand, successfully developed three documents: Educational Reform of 2017 comprising 15 Sections; National Education Act of 2017; and National Educational Plan of 2017. The Independent Educational Reform Committee (IERC) was appointed by the Thai government to propose educational reform for Thailand. Headed by a medical doctor and members of the committees, the IERC developed a National Educational Act of 2019 and submitted it to the National Assembly for enactment. At the time of this report (April 2019), the National Education Act of 2018 has not been proclaimed law due to the protests of Thai educators on the concepts of educational reform.

b. Communication Infrastructure

Thailand has a comprehensive digital and analog communication infrastructure of domestic satellite services (ThaiCom), radio, TV, telephone, postal services, printing, and transportation. There are more than 500 AM/FM radio stations (2018) for more than 30 million radio sets. Television is broadcast by seven analog television networks (Channel 3, 5, 7, 9, 11, ITV, and TTV), more than 50 digital TV and Internet TV stations covering 90% of populated areas. Pay TV, via cable and Ku-band direct broadcast, is available in Bangkok, provincial areas, and districts in Thailand.

Domestic and international telephone services, through mobile phones (470, 800, 900MHz and digital GSM, 1800, and the Hutch1900 MHz, 2.1 MHz, 3G, 4G, and 5G) and personal cordless telephone (PCT), are available in million numbers. Internet services are available through various commercial internet system providers (ISP) nationwide, making it possible for users to exchange data and information worldwide. There are at least millions of users in Bangkok and provincial areas.

Postal services are operated by Thai Postal Service, a state-owned private company and other private ventures. Thailand's postal services are highly reliable. There are post offices in every district reaching all villages. Printing services are available in all parts of the country, including high-quality gravure and non-impact printing technology.

Roles of Sukhothai Thammathirat Open University

Sukhothai Thammathirat Open University (STOU), which employs the single-mode policy and using the full concept of open and distance education, was established as a public university on September 5, 1978. The University is located on a 54-acre piece of land in Nonthaburi Province, 18 kilometers North of Bangkok. Presently, STOU provides degree and certificate programs in twelve schools: Liberal Arts, Educational Studies, Management Sciences, Law, Health Sciences, Economics, Home Economics, Political Sciences, Agricultural Extension, and Cooperative, Communication Arts, and Science and Technology, and Nursing.

a. STOU Philosophy, Objectives, Vision, and Missions

STOU upholds the philosophy of continuing "lifelong and life along" education by providing and expanding opportunities for people who, for

whatever reasons, had not earned certificates or degrees from conventional universities, and at the same time, upgrading the quality of life and work. With a mission to provide education to the people everywhere at any time, STOU uses the development and advancement of educational, information, and communication technologies to foster the students through ODE appropriate to social infrastructure and students' readiness.

STOU has to achieve four objectives observed by all public and private universities under the Ministry of Education. These are as follows:

1. to provide and promote academic and professional education at the university level in order to help the people upgrade their educational standard and serve the needs of society;

2. to promote research and studies for generating new knowledge and applying it to national development;

3. to provide public service by disseminating knowledge to the people to help them upgrade their personal development and their professional competencies; and,

4. to preserve and promote the arts, traditions, and cultural heritage of the country.

Like other national universities, STOU is governed by the Ministry of Education. The management is under a President with administrative and academic structures similar to most universities in Thailand.

STOU provides curricula and programs of study in three levels: (1) Degree programs consisting of Bachelor's degree (4-year and 2-year) programs, Master's Degree, and Doctorate Degree; (2) Certificate Programs consisting of one-year certificate programs and short-term certificate programs; and (3) Single-Course Certificate Programs: consisting of all single courses made available to the general public to take one course in any program without academic requirements.

STOU students are mostly working adults categorized into three groups: (1) Degree and non-degree or certificate students; (2) Degree students working towards a Bachelor's degree, a Master's degree or Doctoral degrees in the 12 schools (Liberal Arts, Education, Management Sciences, Law, Economics, Home Economics, Health Science, Political Science, Agricultural

Extension and Cooperative, Communication Arts, Science and Technology and Nursing); and (3) Non-degrees and certificate programs students.

Bachelor's degree programs consist of 4-year degree programs offered to students with secondary education certificates and 2-years degree programs offered to students with Higher Vocational Certificates (5 years vocational education after secondary schools) or associate degrees.

Non-degree students work for one-year certificates and single certificates of achievement. For one-year certificate programs, students are required to study for two semesters to complete 36-40 credits. A single-certificate of achievement (SCA) is granted to anyone who registers for a 6-credit course and passes the final examination. The accumulated SCA may be applied for a transfer to regular degree programs if the students are properly enrolled as regular students.

b. STOU Distance Instructional System

STOU's distance instructional system, the STOU Plan, is the master plan for the academic development of the university. It serves as the guideline for developing the operational plans for administration, academic, educational services, and national, cultural activities. Since 1980, STOU has developed five ODL systems: STOU Plan 1980, STOU Plan 1993, STOU Plan 1998, STOU Plan 2000, and STOU Plan 2018.

STOU Plan (1980) was developed by Dr. Chaiyong Brahmawong, Founding Director of STOU's Office of Educational Technology. STOU Plan (1980) had been in use for bachelor's degree and certificate programs until AD 2000.

The system's components comprise five steps: (1) Identifying Social Problems and Needs; (2) Developing DE curriculum; (3) Producing distance learning packages; (4) Delivering knowledge and experience; and (5) Evaluating student achievement and evaluating the overall open and distance education system.

Media Structure: Print-based approach, making use of prints as core media, was employed and supplemented by audio-visual media, radio and TV programs, tutorials, CAI, and other relevant techniques. Print media used in the delivery system consisted of (1) distance learning texts of 15 units bound in 2-3 volumes. Each unit comprises 3-5 modules/sections;

each section comprises 2-6 topics; (2) workbooks, bound in 2-3 volumes; corresponding to DL texts; and, (3) set of books specially written or selected from existing texts, articles, and reading materials. Supplementary media comprise 1-3 C 60 audiocassettes, 10-15 radio programs (20 minutes long), 3-5 TV programs (30 minutes long), tutorials with audio-vision materials (non-projected materials using pictures illustrations to enhance verbal tutorials), and limited computer-assisted instruction (CAI) using VITAL (Video Integrated Teaching and Learning) software developed by the University of Guelph, Canada.

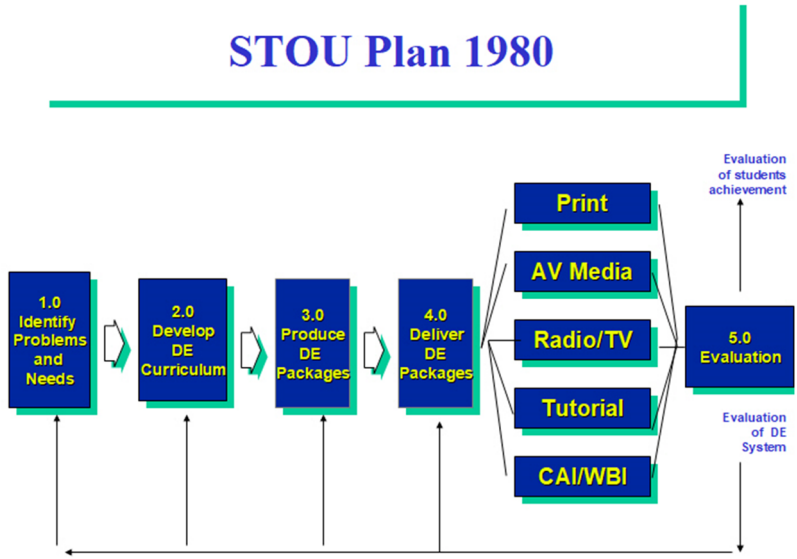


Figure 5.1. STOU Plan 1980.

STOU Plan (1993). In 1993, STOU began three master's degree programs in educational administration, curriculum and instruction, and educational technology and communications. The new STOU Plan for Graduate Studies was then developed and comprise of 6 steps by added "Philosophy and Vision" as the first component. Moreover, there are some changes to media structure. STOU Plan (1993) is still in use until the present time for graduate programs.

STOU Plan (1998). This open and distance instructional model was aimed at providing a parallel track for students who possess computers and IT capability to pursue their study via web-based instruction.

STOU Plan (2000). In February 2000, the newly revitalized version of STOU open and distance education system, called STOU Plan 2000, was developed using the parallel channels of open and distance education, i.e., (1) print-based approach for the general groups of students who may not have access to the internet, and (2) computer-based approach for the IT-oriented groups of students.

The purpose of STOU Plan 2000 is to modify STOU's open and distance education system to correspond to the advancement of educational, communication, and information technologies and to serve the need of diversified groups of students according to their needs and readiness.

STOU Plan 2000 consists of 9 components arranged in the following logical steps:

Step 1 Define philosophy and visions;
Step 2 Survey social problems and needs;
Step 3 Analyze students' nature and graduate standards;
Step 4 Define context and scenario (Real and Virtual);
Step 5 Develop DE curriculum;
Step 6 Produce multi-media DE Courseware; print-based DL Packages and computer-based DL Packages;
Step 7 Deliver knowledge and experience;
Step 8 Conduct evaluation; and,
Step 9 Maintain Quality Assurance.

The media structure used in the STOU Plan 2000 is dual tracks, i.e., employing print-based and computer-based instructions. Students are allowed to select a track of their own choice to pursue their studies: the print-based track and the computer-based track.

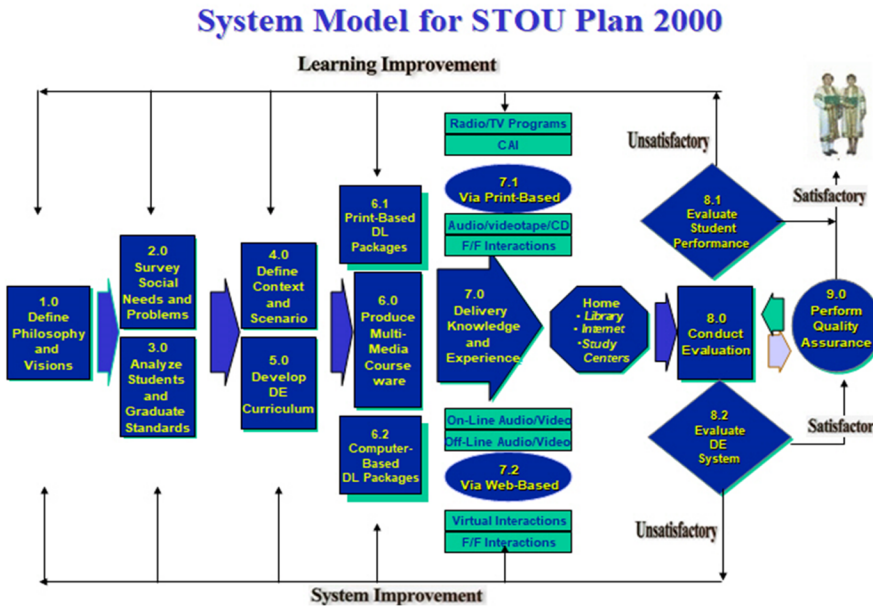


Figure 5.2. STOU Plan 2000.

STOU was one of a few universities making use of the academic plan as the master plan for university operation. STOU Plan was used as the guidelines for developing administrative and academic operational plans, as well as for educational services and maintaining cultural heritage.

In its 40 years of experience, STOU had a good time in creating and challenging innovative approach in education, which brought together educators from all over the country to produce distance learning packages, such as writing distance learning texts, appearing in radio and TV programs, or participating in other educational activities initiated by STOU. More than 5,000 academic staff members from other colleges and universities helped produce courseware, thus helping STOU's provide and expand multiple opportunities to working adults, as well as secondary school graduates to pursue their studies.

To initiate many new approaches, STOU was the first in Thailand to produce out-off studio drama used in educational TV programs, while most TV serials were produced in the studios. During the energy crisis in the early 1980s,

only STOU TV programs were allowed to broadcast during "blackout" time from 6:30-8:00 p.m. on Channel 7 and Channel 9 (although STOU has to pay its own airtime). STOU radio programs are broadcast via Radio Thailand Educational Network for 49.5 hours per week free of charge. STOU also developed a new tutorial system making use of tutorial packages comprising non-projected audio-visual materials for tutorials sessions in STOU local study centers.

As stated above, all administrative and academic management sectors of STOU cooperated well in initiating new approaches. The public accepts STOU as an open university with high standards and quality. Although it has the reputation of "tough to get into," STOU's degrees are still in great demand as evidenced from the fact that the number of graduates up to now is about 500,000 and new students maintained at about 90,000-100,000 every year.

STOU was established in a country where open and distance education developed more than half a century ago. While new open and distance education providers emerge such as Wang Klai Kangwon Secondary Education via Satellite project and Suranaree University of Technology's Borderless Education project, STOU constantly develops new educational technology while facing the rapid movement of ICT. From the year 2000 until now, STOU has launched new multimedia to convey learning content through various applications to meet the needs of learners with varied learning styles.

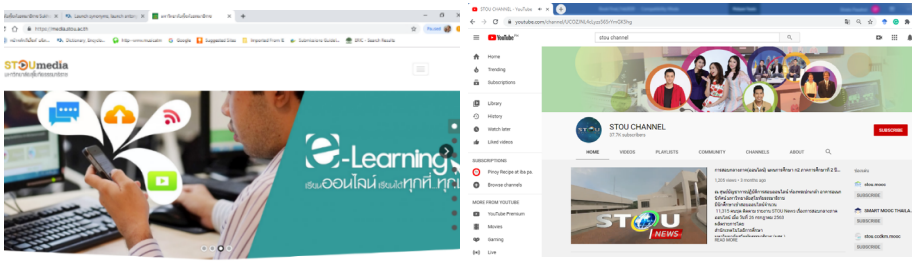


Figure 5.3. The STOU Portal.

STOU Educational Reform on Open and Distance Learning. In December 2019, after eight months of vigorous reform, STOU's University Council approved STOU Plan 2018. The On-Palm Education Model (OPE Model) shall be developed to incorporate an AI tutorial system (AI-Tutors) for more efficient self-directed learning.

Figure 5.4. STOU Educational Reform Concept.

STOU Reform Committee proposes to re-engineer and move Thailand's Open University forward to "Smart STOU", providing STOU students with OPE Model via Triple Tracks. The details are as follows:

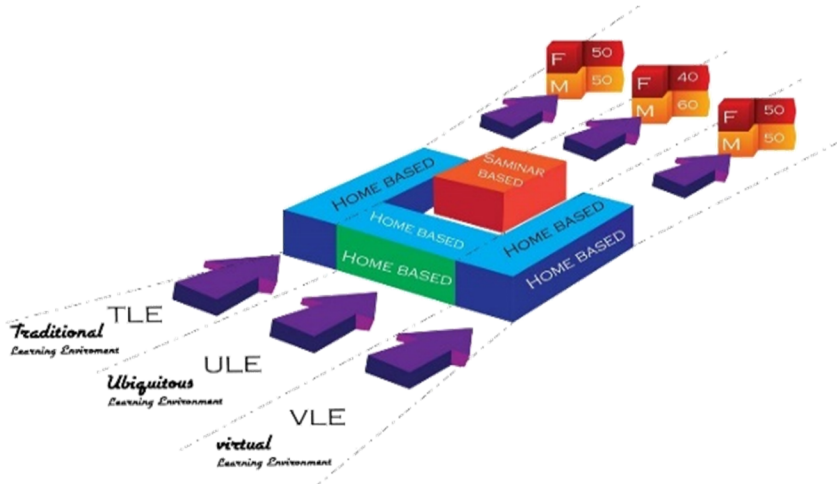


Figure 5.5. STOU Triple Tracks System.

1. *Traditional Open and Distance Learning Environment (TODLE)* - Students study from print media (on-paper and on-screen) and broadcast media as core media, supplemented by electronic media;

2. *Virtual Learning Environment (VLE)* - Students learn from electronic media (online and offline via high capacity SD cards, Flash Drives, Memory Zone, and DVDs);

3. *Ubiquitous Blended Learning Environment (UBLE)* to make knowledge and experience accessible everywhere and at any time supplemented by face-to-face seminars at 18 local study centers throughout Thailand.

With the new approaches, STOU shall be transformed to become a Life-Along and Life-Long University (LALLU), giving more emphasis to non-degree education via informal and non-formal education (INFE Model) on life education, career education, and experience education channel operated by the Office of Life Education-OLE. The INFE model will provide a solid foundation for Academic Channel to provide undergraduate and graduate degree programs via formal education. AI-Tutor, an artificial intelligence portable robot, will serve as personal assistants to STOU students. Specifically, AI-Tutor will be designed to be a student's Personal KC (Knowledge Center), providing offline knowledge and information as well as internet access for online interactive social media platforms.

The AI-Tutor stores offline course contents and AV materials enhanced by online updates. It is interactive and capable of reporting news, briefing daily situations, giving on-demand lectures on the requested topics, and dialing the telephone. In addition, it may be able to give legal and health advice. It is capable of projecting images on wall screens or on-air via hologram.

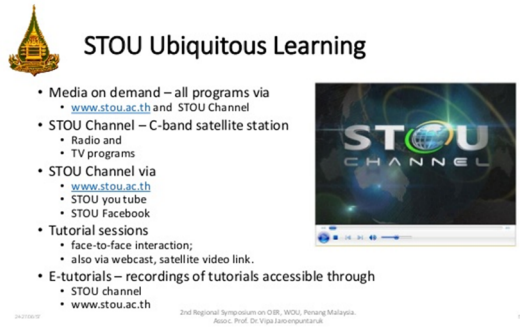


Figure 5.6. STOU Ubiquitous Learning.

THE SURVEY RESULTS

This section reports the results of the survey conducted in 2018.

a. Knowledge and Perception about Open Education

The first question asked was about the understanding of what open education means. It is encouraging to see that the majority of respondents (both instructors and students) claimed that they know what open education is. As shown in Figure 5.6, 89% of the instructors and 85% of the students answered yes to the question.

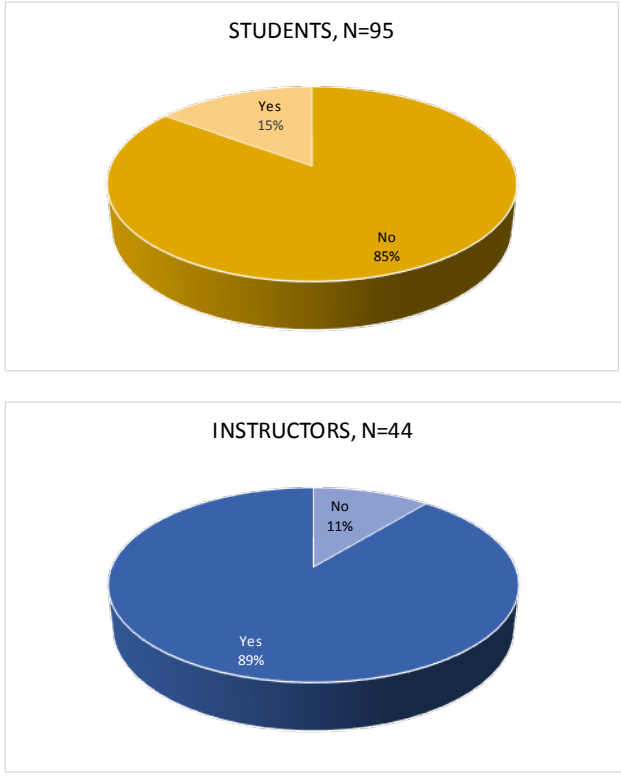


Figure 5.7. Knowledge about Open Education.

The next question intended to know about the perception of respondents on the word 'open education.' The respondents were asked to select any of

the given options which they believe are associated with the field of open education. These include:

- free education;
- education with low cost;
- beneficial for society;
- government program for the people;
- free software for education;
- free books;
- a philosophy about education for all;
- non face-to-face education; and,
- online education.

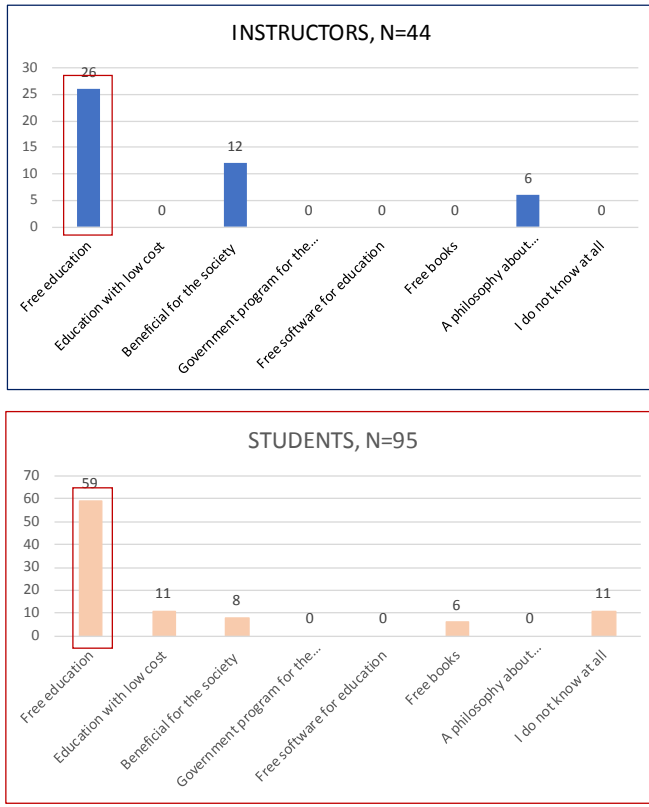


Figure 5.8. Perceptions about Open Education.

As shown in Figure 5.8, the majority of the respondents (both instructors and students) selected "Free education". This shows that instructors and

students believe that open education should be free of charge. Some of the instructors also believe that open education is "beneficial to society", as well as a "philosophy about education for all". Some students believe that open education is "education with low cost" and free books. The figures also show that some students do not know about open education at all.

b. Involvement in Open Education Program/Initiative

Responses of instructors

With regard to the question about knowledge on institution involvement in Open Education, the responses show that the majority of instructors' respondents (70%) claim to know their institution's involvement, and only 30% said that they do not know.

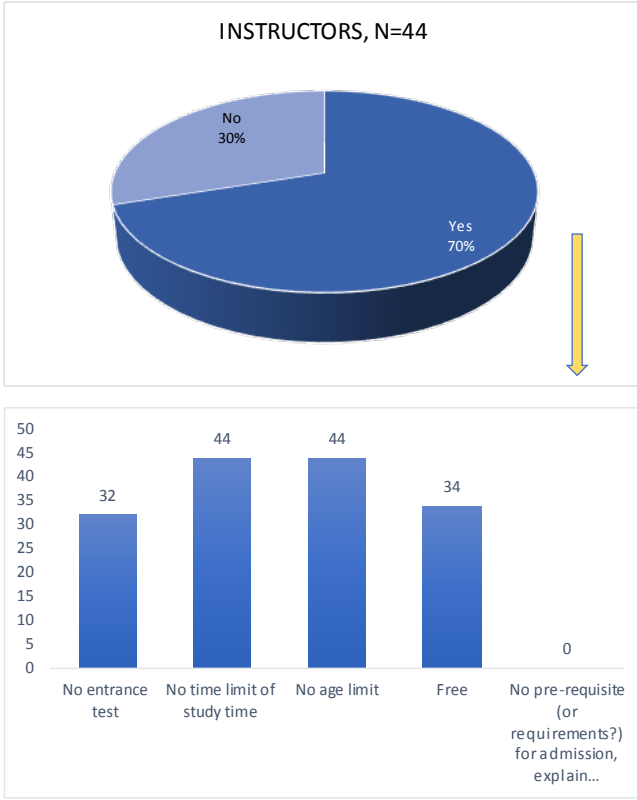


Figure 5.9. Instructors' knowledge on Institution Involvement in Open Education.

Responses of students

As for students, the responses show that the majority of students (80%) participated in other Open Education programs that are not formal open education in STOU, and the point of view about the nature of openness is similar. Only 20% said that they did not.

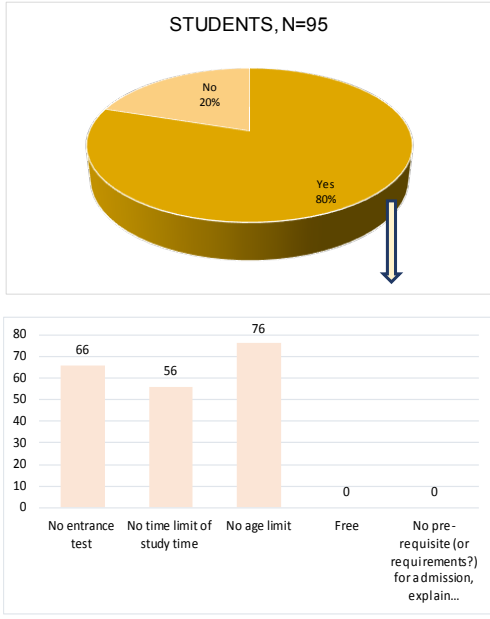


Figure 5.10. Students' Participation on Open Education.

c. Other Institutions Providing Open and Distance Education

Open and distance education in Thailand were developed half a century ago to meet the needs of the people in the three following areas, namely:

1. providing multiple opportunities for secondary school graduates and working adults to pursue higher education certificates and degrees;

2. increasing demands for continuing, lifelong education for those in the workforce to upgrade the quality of their life and their work to keep up with scientific and technological advances; and,

3. providing non-formal education to those who have not earned elementary and secondary education certificates.

Open and distance education in Thailand was first developed in 1933 with the establishment of the University of Moral and Political Sciences (now Thammasart University) and was implemented later on in various public and private educational institutions.

The University of Moral and Political Sciences (UMPS)

The UMPS offered a general degree, Bachelor of Thammasart (B.Th) via the so-called "Academic Market approach" (Talard Wicha), with an open admission policy for government employees and the general public to work towards degrees in law and business administration. Students bought texts and handouts to study by themselves or attend classes on campus. No open and distance educational media were specially designed for home-based students. The university was converted to a conventional university and renamed Thammasart University in 1957, at which time, entrance examinations were required for admission. The closure of the open admission policy of Thammasart University led to the establishment of Ramkamhang University (RU) in 1971.

Ramkamhaeng University (RU)

With an Academic Market policy, originally modeled after the University of Moral and Political Sciences, RU was established as a public university by a Royal Charter on February 26, 1971, to serve the need of the secondary schools' leavers employing a certain type of distance learning approach, such as producing better texts and using radio/television programs for direct teaching.

RU is an open-admission institution providing a triple mode instructional system to three groups of students: (1) class attending students; (2) home-based distance learning students; and, (3) mixed type students both attending classes and studying by themselves.

RU study mode was based on their preference to be on-campus or off-campus students or a mix of both. Since 1996, RU has expanded its services to provincial students by establishing 22 Regional Academic Resources Centers (RARC) in different parts of the country. Teaching and learning activities in each RARC are supported by video-teleconferencing systems with two-way communication links to the main campus in Bangkok.

Suranaree University of Technology (SUT)

The Borderless Education concept of open and distance education was initiated by SUT in 1996. SUT, the first autonomous university in Thailand, was established on July 27, 1990, as a state-owned but non-governmental university of science and technology in Nakorn Ratchasima Province (Korat), 254 kilometers northeast of Bangkok.

SUT began its open and distance education project called Borderless Education Project in 1996. It aims to provide education to remote students in its Education Centers initially commencing in Udorn Thani and Buriram provinces using on-screen interactive (OSI) and web-based instruction and core media supplemented by prints, audio-visual media, and telecommunication.

After the "SUT Plan" for Borderless Education was developed, the Borderless Education Project (BEP) began producing the first sets of 46 courses. In the year 2002, the first batch of 300 BE students began their studies in Udorn Thani Education Center, about 300 kilometers northeast of Korat, and 300 BE students in Buriram Education Center in the following year. A total of 313 courses was offered via the BEP within 2010.

Thai Cyber University Project (TCU)

TCU was established according to the National Education Act B.E. 1999 to provide more educational opportunities for Thai people under the Office of the Higher Education Commission, the Ministry of Education. The TCU aims to be a knowledge and education center by using UniNet and the latest technologies to provide further education for all, for both formal and informal education.

TCU has a plan to increase the number of people who can access higher education, gaining knowledge at their convenience, irrespective of time, or location. Presently, more than one hundred colleges and universities are joining TCU, employing Massive Open Online Course called "Thai MOOC", and providing general education courses to their students and the general public.

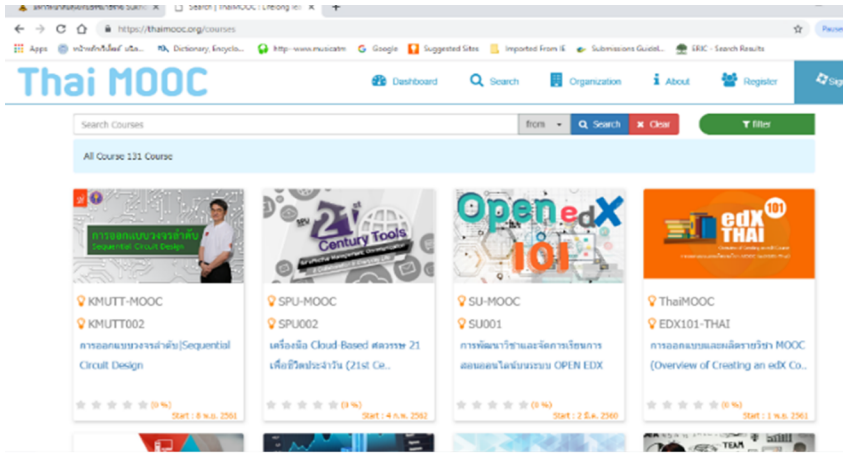


Figure 5.11. Thailand MOOC Portal.

The Wang Klai Kangwon Royal Satellite Secondary Education Project

The Wang Klai Kangwon Royal Satellite Secondary Education Project is a royal initiative that was inaugurated on December 5, 1995, marking His Majesty the King's 68th anniversary. The Project site is located at Wang Klai Kangwon School, a royal patronage school established within the compound of Wang Klai Kangwon Summer Palace in Hua Hin District in Prajuab Kirikhan Province.

The Project is operated jointly by the Open and distance education via Satellite Foundation and the Department of General Education, Ministry of Education with technical supports for installation of direct-to-home (DTH) TV stations mainly from Shin Corporation (operator of ThaiCom) and Telephone Authority of Thailand (TAT). Shin Corporation provided seven Ku-band channels, transmitters, control rooms, and equipment for classroom studios capable of live broadcasting six instructional programs for Matayom Suksa 1-6 (Grades 7-12) simultaneously to 4,000 joining secondary schools with one channel broadcast in English.

Presently, the seven channels are divided into 14 digital channels to cover the various programs needed by various schools. The TAT provides signal linkage via optical fiber from Hua Hin to Nontaburi where TV signals are uplink to ThaiCom for direct broadcasting. The Wang Klai Kangwon's six

Ku-band programs are also broadcast via Thailand's only cable TV provider (UBC), reaching more than 200,000 homes in Bangkok and big cities.

Non-Formal Education

At the elementary and secondary levels, open and distance education programs were started by the Office of Non-Formal Education (ONFE), in the early 1950s and the Wang Klai Kangwon Royal Satellite Secondary Education Project in December 1996.

The ONFE, Ministry of Education, began its open and distance education programs via the so-called radio correspondence programs for home-based students who have not completed elementary or secondary schools. Presently, ONFE's open and distance education activities have expanded to cover the needs of all groups of students. Overall, the program is aimed both at providing the chance to study for elementary and secondary education certificates. In 1996, the ONFE established the Education via ThaiCom Satellite Foundation, with an initial investment donated by the Shin Corporation, the operator of Thailand's domestic satellite.

The Foundation provided a Ku-band channel for an Educational Television Station (ETV) operated by the Center for Educational Technology and donated a number of Ku-band receiving disks for the ONFE's Provincial Non-Formal Education Centers. The ETV broadcasts educational programs for the various non-formal education groups nationwide. In addition to broadcasting its TV programs via the ETV station, the ONFE also broadcasts radio programs via Radio Thailand Education Network and broadcasts its TV programs via the Department of Public Relations' Channel 11.

College of Internet Distance Education, Assumption University (CIDE)

Bangkok Thonburi University launched its distance education programs in 2012 for bachelor's degrees in Business Administration, Political Science, and Laws. Print-based, Broadcast-based, and online open and distance learning approaches were employed. BTU has its own two satellite TV stations and IP TV to broadcast ODL lessons to home-based students in Thailand and abroad.

Distance Education Institute, Bangkokthonburi University (BTU-DE)

Bangkokthonburi University launched its distance education programs in 2012 for bachelor's degrees in Business Administration, Political Sciences, and Laws. Print-based, broadcast-based and online open and distance learning approaches were employed. BTU has its own two satellite TV stations and IP TV to broadcast ODL lessons to home-based students in Thailand and abroad.

CONCLUSION

The trend in the development of open education in the 21st century is the implementation of a fully online course to support learning through the internet and telecommunications system, starting from the registration by the learners, content management, to teaching practice, testing, and evaluation by which the learners can study anywhere. The important causes that enable the learning in open education which is suitable for education in the 21st century are as follows:

1. *The change in the nature of learning* - Various knowledge occurs rapidly. As time passes by, the existing knowledge or technology in textbooks will be obsolete and not suitable for usage in learning. Everyone wants to receive data, information, and new knowledge that interest him/her and provide maximum benefits to him/her with appropriate methods, expenses, and time. Therefore, the service providers also want to edit, add the content of the lesson, and adjust the model of the educational services and learning in accordance with the changing technology. Thus, learning in Open Education has played a part in learning and instruction (Learn Tech Education, 2018).

2. *Rapid increase of need to acquire knowledge* - The need to acquire knowledge in order to improve oneself to be a person with high qualification, be appropriate with job position, desires to be promoted to a higher position, or be a school student, college student, unemployed people seeking for a job with high income and job security, is feasible through learning in Open Education that enables the learners to freely select the interesting content or lesson by themselves (Learn Online, n.d.).

3. *The need for flexible education with adaptation to the education method and learning method as one needs* - Learning in Open Education is learning through the internet. It is self-directed learning and learning according to one's ability and interest, anytime and anywhere. Thus, it is considered that learning in Open Education is the new choice for education in the new era (Thai Web Base, 2000).

4. *The learners can study the content they need together with the modern technology* - Open Education requires one to use a computer at all times, especially in communication that requires the use of e-mail, web board, chat room, etc. It is expected, therefore, that learners will eventually embrace, rather than reject, these technologies (Virtual Classroom, n.d.).

5. *Response to the individual differences* - The learning in Open Education emphasizes the learners in order to respond to the individual differences of each learners so that all of them can achieve the results. Such instruction complies with truth that people are differences that affect learning (Virtual Classroom, n.d.).

6. *The learners determine their own learning* - The important change occurred in education is the concept of informal education. As a consequence, there is a significant change in learning and educational services by which every service provider will visualize the need of the learners as indispensable, the need in the content and lesson, the need in the methods of learning, the need in time, place, and finally, the need in quality of service that worth the out-of-pocket expenses (Learn Tech Education, 2018).

Open Education through the Internet was developed to give people equal opportunity in education. It is also the new challenge of the open system of lifelong learning and instruction arrangement to extend not only to the educational institution and the urban society, but also to the learners in the remote areas without limitation on time and places. In addition, the arrangement of learning and instruction activities also emphasizes the encouragement of logical and rational thinking and action of the learners who will subsequently practice and gain the relevant skills. One important thing that shall improve in the present situation is internet speed. Learning and instruction in Open Education requires good internet speed to enable data transfer in the digital streaming transmission, as well as animation and

perfect audio system. The application of instruction techniques transmitted through the internet will help the instructor to prepare the lesson so that learners can study by themselves at their convenient time or the instructor may also design the supplementary database for learners for additional learning. With this, the learners and the instructor from different places will be able to interact with much ease and will be able to receive the benefits of Open Education this borderless education era.

REFERENCES

Boitshwarelo, B. (2011). Interactive online tools for enhancing student learning experiences in remote sensing. *Journal of Geography in Higher Education, 38*(3), July 2014. Retrieved from https://www.researchgate.net/ publication/263703036_Interactive_online_tools_for_enhancing_student_learning_experiences_in_remote_sensing

Daniel, J. S. (1995). *The mega-universities and the knowledge media: implications of new technologies for large distance teaching universities* (Doctoral dissertation, Concordia University). Retrieved from https://spectrum.library.concordia.ca/132/1/MM10836.pdf

Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.

Holmberg, B. (1989). *The concept and applications of distance education and open learning*. Retrieved from www.eric.ed.gov/?id=D334965

Hannafin, M.J., Land, & Oliver, K. (1999). *Open learning environments: Foundations, methods, and models*. Charles M. Reigeluth (Ed). Instructional design theories and models: A new paradigm of instructional theory. Volume II. London: Lawrence Erlbaum Associates.

Husmann, E., Rizzo, F., Dede, C., & Meister, J.C. (2013). Commentaries and Conclusions, in Andreas Meiszner, Lin Squires (ed.). *Openness and education.* (Advances in Digital Education and Lifelong Learning, Volume 1). Emerald Group Publishing Limited, 173–185.

Learn Online. (n.d.). Retrieved from https://www.learnonline.com/

Learn Tech Education. (2018). *E-Learning for enterprise.* Retrieved from http://www.thai2learn.com

Morris, L. A. & Others. (1977). *Open education: Achievement and effective impacts.* Retrieved from https://eric.ed.gov/?id=ED136428

Siemens, G. (2004). *Connectivism : A learning theory for the digital age.* Elearnspace. Retrieved from http://www.elearnspace.org/Articles/connectivism.htm

SPARC: The Scholarly Publishing & Academic Resources Coalition. (2017). *Open education*. Retrieved from www.sparcopen.org/open-education

Scott, C. L. (2017). *The futures of learning 2: what kind of learning for the 21st Century?* Retrieved from http://unesdoc.unesco.org/images/0024/002429/242996E.pdf

Thai Web Base. (2000). Retrieved from http://thaiwebbase.com/

Thorndike, Edward L. (1966). *Human learning.* Massachusetts: The M.I.T. Press: Cambridge, Massachusetts.

UNESCO. (2007). *Framework for 21st Century Learning.* Retrieved from http://www.p21.org/our- work/p21-framework

Virtual Classroom. (n.d.). Retrieved from http://virtualclassroom.com/

Wiley, D. (2012). Chapter 6: *Why Openness in Education?* Retrieved from https://library.educause.edu/resources/2012/5/chapter-6-why-openness-in-education

The State of Open Education Practice in Vietnam

Nguyen Mai Huong

CHAPTER 6

BACKGROUND

With a population of about 95.56 million, Vietnam's labor force ages 15 and older is 55.12 million people, accounting for 57,68%, ranked 3rd in Southeast Asia (following Indonesia and Philippines), and ranked 14th in the world in terms of population size.

Vietnam is still in the period of golden population structure, with abundant, stable supply, and young labor force. This is an outstanding feature, a very favorable factor of human resources to meet the demand of the labor market. At the same time, this is also a requirement for the Vietnamese education in human resource development. In order to train a large laborforce in a synchronous manner under occupational structure and qualifications, meeting the needs of diverse human resources in the context of a competitive market and international integration, Vietnam has prepared guidelines on basic innovation in education, developing an "open" education system and strongly deploying open and distance learning (ODL) programs for a great number of people. This system emphasizes flexibility; reduces barriers due to age, geographic location, time, space, and economic status; has been implemented for more than 25 years, and has made significant contributions to improving knowledge, training human resources, and meeting the learning needs of people. Actually, ODL has become an organic component of the national education system.

a. Vietnam's Open Educational Development Policy

In Vietnam, to assess the role and importance of ODL in improving the intellectual standard and human resources training to meet the country's socio-economic development demand in the period of renovation, the

Party and the State's guideline, as well as policy, is made very clear on DL development. This is reflected in important documents.

Resolution of the 2nd Plenum of Term VIII of the Party's Central Committee (1996) clearly stated that *"Expanding the continuing learning forms, especially ODL''.* IX National Congress Document of Communist Party of VietNam (2001) stated: *"Formulating the planning of training human resources in the method of combining of the formal learning, distance learning and learning through computer"*(p. 110).

In 2005, ODL was mentioned in Education Law, specifically: *"National education system, including formal education and continuing education"* (Clause 4, Article 1); *"continuing education programs' modes regarding level of the national education system include: (a) in-service education, (b) distance learning, (c) self-study"* (Clause 45, Article 2).

Decision No. 112/2005 /QD-TTg dated 18th May 2005 by the Prime Minister on approving Scheme *"Building up a learning society for the period 2005-2010"* clearly states that *"Boosting the application of ODL to implement continuing education programs; rapidly enhancing the ability to provide learning opportunities in the form of distance training for regions with difficult and extremely difficult socio-economic conditions; strengthening the use of modern communication and media, etc."*

The educational development strategy for the period 2011-2020 approved by the Prime Minister under Decision No. 771/QD-TTg, dated 13th June 2012 pointed out that *"Building a learning society, creating equal opportunities for everyone to learn, learn throughout life, etc."*

Resolution No. 29-NQ/TW dated 4th November 2013, the 8th Plenum of Term XI Party Central Committee, on fundamental and comprehensive education and training renewal to meet the requirements of industrialization and modernization in the context of socialist-oriented economy-based market and international integration, pointed out: *"To complete continuing education network and various and flexible forms of learning and practice, valuing self-study and ODL ..."* and *"... meet the lifelong learning needs of everyone"*.

The Government's action plan promulgated along with Resolution No. 44/ NQ-CP dated 9th June 2014, implementing Resolution No. 29-NQ/TW,

specified that: *"To develop ODL system and digital learning materials"* (Article 8, clause đ, page 8).

Decision No. 1559/QD-TTg dated 10th September 2015 by the Prime Minister on approving Scheme *"Development of Distance Learning for the Period 2015-2020"*. In implementing this scheme, MOET has developed and issued the regulations on the university-level ODL (enclosed with Circular No. 10/2017/TT-BGDDT dated 28th April 2017 replacing the regulations promulgated under Decision No. 40/2003/QD-BGD&ĐT dated 8th August 2003, at the same time, developing a set of standards for quality assessment of ODL program.

In the above guiding documents, the Party and Government pay great attention to ODL development to meet citizens' learning demand and develop the country. Experts believe that addressing well the issue in terms of size and quality in ODL will help Vietnam overcome the pressure of an overloaded education system, required ratio of students/lecturers, as well as classroom capacity and differences in students' learning ability. DL will move from *"elitist education"* to *"public education",* from the *"mass training"* model to *"learning personalization"*. Therefore, the ODL system with standardized learning materials and the application of information technology will be the solution to the concern of quantity and quality, creating fairness and equality in education.

b. The Development of Open Education and Open Distance Learning in Vietnam

Following the trend of open education and ODL in higher education worldwide, two Open Universities were established in Vietnam in 1993. These were Hanoi Open University and Ho Chi Minh City Open University. When determining the functions and duties of these two universities, in the Decision of establishment, the Government specified the focus on open education and ODL to attract a large number of students with flexible learning conditions, not strictly constrained requirements as full-time training. After a quarter of a century since its establishment, the two open universities have attempted to affirm the philosophy of such an open education model and social benefits gained by the model. Open education has positively contributed to improving intellectual standards, training human resources, particularly the in-place human resources for mountainous, remote, and island areas. Open education contributes to exercise equality in education,

creating opportunities for people to gain lifelong learning, overcoming difficulties in geographic distance between learners and educational institutions, implementing ethnic policies, and social justice on education. Learners can make use of many information channels to acquire knowledge.

This model has contributed a lot of bachelors and engineers to the nation's workforce. In 2018, there are 17 universities registering the enrollment quotas with a total of 68,020 students and the scale of 161,047 students attending 90 training programs (accounting for 6% of the total number of university and college students across the nation). The number of students enrolled in specific major categories was as follows: Business & Management: 36%, Social Sciences: 40%, Education: 15%, Engineering & Technology: 9% (Figure 6.1).

Open education students are mostly those who cannot attend formal education; many people in remote areas and localities want to improve their qualifications and furnish diplomas and degrees to meet the labor market's requirements. In big cities and provinces, the majority of applicants are those who have a formal university degree and want to study for a second degree, or who are employed and want to further study to improve their professional qualifications to gain better work performance.

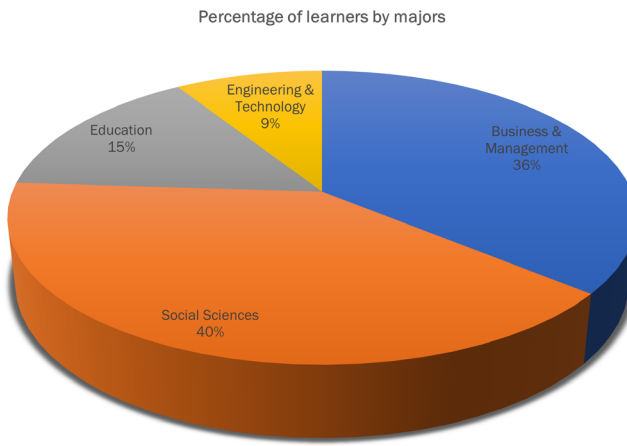


Figure 6.1. Percentage of learners by majors.

Currently, the main open education modes applied by open universities are the following:

- *Traditional mode (also known as face-to-face training):* Learners mainly self-study through learning materials system (including curriculum and self-study guideline) developed by universities, combined with listening lectures on the radio (or listen to CDs, etc.). Learners can conduct their studies at their most convenient time. Learners then will be instructed directly in class before the course ends.

- *Online mode (e-Learning)*: This is an advanced training method with many benefits, especially in the current context of telecommunications infrastructure and information technology development, the advantages of this method are increasingly affirmed. This approach towards providing learning access anywhere, anytime on a personal computer and internet-connected smart mobile phone

The internet network system in Vietnam was formed and developed in 1997. Ever since Vietnam has been rated by the world as one of the fastest-growing internet users. Currently, 78% of internet users in Vietnam are online every day, 55% of them go online with smartphones. In addition, Vietnam also has a huge advantage in connection methods as the internet rates (both Wi-Fi and 3G, 4G) in Vietnam is the cheapest in the world, and he is most impressed with the coverage ratio of Wi-Fi. Vietnamese users use the Internet a lot for entertainment purposes, according to Google statistics, and compared in Asia, the Vietnamese have the longest viewing time for each video. Sixty percent of Vietnamese users watch videos daily, mostly for entertainment, but Google also determined that over 50% of users watch videos because they want to learn something new. This will be the advantage of the next generation of internet citizens. Vietnam is quite capable of creating miracles in education from this tendency.

The regulations on open education, developed, updated, and supplemented by MOET and universities, can be considered as a step forward with many major changes, such as facilitating the development of this training mode in the spirit of self-control and self-responsibility of tertiary education institutions, reducing administrative procedures, and at the same time, enhancing examination, inspection, and handling to perform State management in a valid and effective manner.

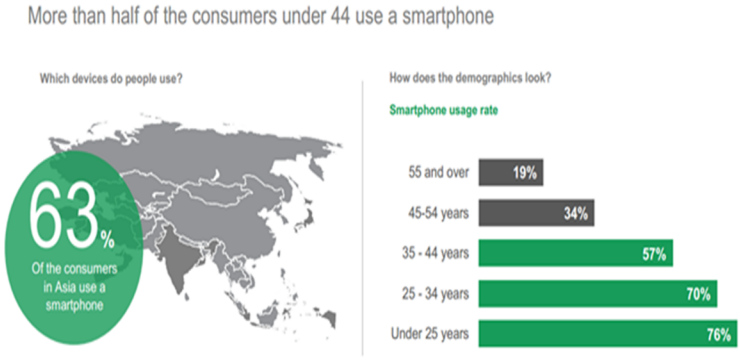


Figure 6.2. Internet users in Vietnam.

Universities implementing ODL have made great efforts in organizing training management and improving quality; preparing learning materials, especially providing timely and sufficiently printed materials to students; concentrating on giving instruction, answering the questions mainly by highly qualified and experienced lecturers; examination has been carried out in accordance with regulations. As a result, the quality of ODL has gradually been improved.

ODL, in diverse forms, especially online ODL mode with the application of modern technology such as the internet, social networks, huge data, mobile, artificial intelligence, biology, and robotics, etc., is developing rapidly, creating a favorable learning environment with intensive interaction. This is known as an outstanding achievement, creating tremendous changes in all ODL's activities.

c. Some of the Modern Technologies Supporting Open Education Development At Hanoi Open University In Vietnam

Established in 1993, Hanoi Open University (HOU) is a public university, which received the task of State and Communist Party to create the new model called "open education for everybody". Since the establishment, with the support of many local and international organizations, HOU has become one of the largest distance education foundations in Vietnam, which contributed b more than 160,000 graduated students to meet the labor needs of society. Distance education technology has been constantly researched and upgraded to enhance the efficiency and quality of the learning form.

Figure 6.3 presents the six factors that form the HOU e-Learning system.

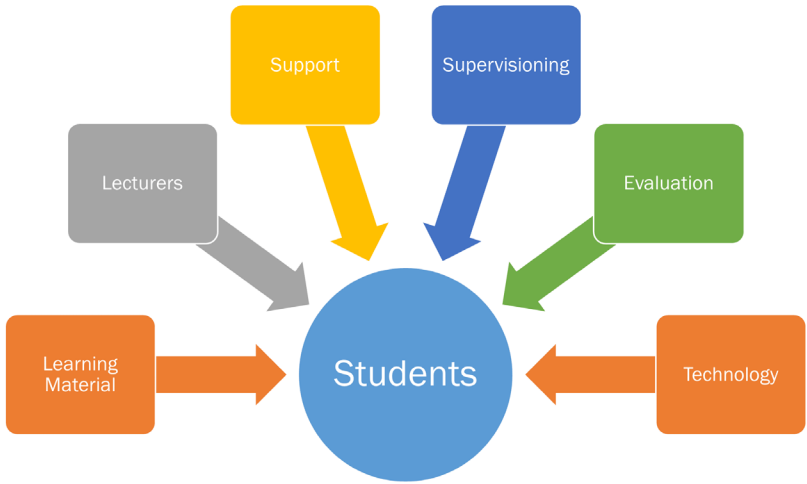


Figure 6.3. Six factors in HOU e-Learning System.

- *learning material* - Different types of learning materials should be provided for various forms of self-study and self-training;
- *lecturers* - This is a very important factor for the learner. The lecturers will act as facilitators, helping learners overcome difficulties during their self-study;
- *support* - Aside from professional support, there should be support on many aspects, such as technical assistance, learning process, choosing courses, helping learners coordinate with faculty or other learners;
- *supervisioning* - There should be supervision on students' activities and their platforms to ensure performance and functionality;
- *evaluation* - Because the learning process is self-taught, it is essential to develop an accurate assessment system to ensure the quality of learning; and,
- *technology* - Technology is an important factor, helping create an environment for e-learning methods.

Figure 6.4. Applying ICT in Open Education in Vietnam.

Technology development has brought many changes in the education sector, We can focus on three main groups which are as follows.

- *content development technology* - is a technology that changes the way learning materials are produced, which makes learning materials smarter and more supportive in learning as well as teaching process.

- *teaching-learning environment development technology* - The traditional in-class teaching has been changed, thanks to technological support, which not only enables lectures to produce more visuals but also removes the gap in space and time in the teaching-learning process.

- *learner management and assessment supporting technology* - In addition to its support in teaching and learning, technology also helps training organizations create a learner-centered learning environment, where individual learners, offer support to each learner to achieve the desired learning results.

In the context of training in the period of the Industrial Revolution 4.0, technology is an indispensable factor. Technology devices, such as computers and the internet, connect smart mobile devices. HOU has built a team of technicians who can completely master the technology, including Studio, and Server and Management Information System. Some of the main systems being used in online training are:

- Academic Administration Information System (AAIS): All learning - related and management – related information is concentratedly stored for searching, reporting purposes, and performing necessary operations.

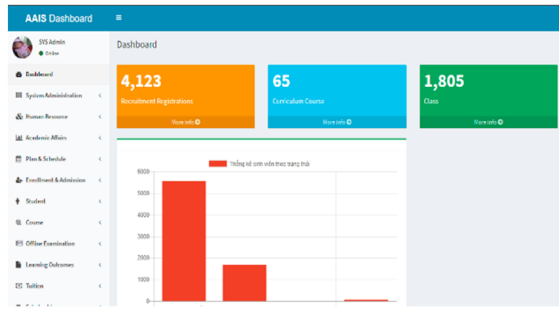


Figure 6.5. Academic Administration Information System.

- Learning Management System (LMS): a centralized management system of courses, learning materials, learning places of learners.

Figure 6.6. Learning Management System.

- Forum: Forum system is diverse and has full functions of a professional forum where an exchange of a community of cadres, lecturers, and students takes place.

Figure 6.7. The Forum System.

- Learning Activities Monitoring System (LAMS): All activities on the learning system of learners will be recorded and put into an automatic analysis system, whereby learning management staff will be able to counsel, remind, or assess the learning process of each individual. Advanced data analysis techniques, such as artificial intelligence and data exploring, have also been put into operation to handle some of the system's activities, and soon to be further applied to promote automation in management and training process.

Nói - Tiếng Anh 1

Computed from logs since Monday, 1 February 2016, 7:02 AM.

Activity	Views	Last access
Kế hoạch học tập lớp môn	12	Wednesday, 11 October 2017, 9:15 PM (4 days 3 hours)
Diễn đàn Thảo luận lớp môn	772	Monday, 16 October 2017, 1:00 AM (1 min 28 secs)
Tuần 2 - (02/10/2017 – 08/10/2017) Bài 1: Social Trends		
Bài luyện tập trắc nghiệm 01 - LTTN01	684	Sunday, 15 October 2017, 10:06 PM (2 hours 55 mins)
Tuần 3 - (09/10/2017 – 15/10/2017) Bài 2: The World of Colours		
Bài giảng Vclass 01	3	Monday, 16 October 2017, 1:00 AM (1 min 26 secs)
Bài luyện tập trắc nghiệm 02 - LTTN02	621	Sunday, 15 October 2017, 10:18 PM (2 hours 43 mins)
Tuần 4 - (16/10/2017 – 22/10/2017) Bài 3: Politeness		
Bài luyện tập trắc nghiệm 03 - LTTN03	254	Sunday, 15 October 2017, 8:02 PM (5 hours)
Tuần 5 - (23/10/2017 – 29/10/2017) Bài 4: Games		
Lớp học trực tuyến VClass01	4	Wednesday, 4 October 2017, 10:59 PM (11 days 2 hours)
Bài kiểm tra trắc nghiệm 01 - KTTN01	227	Friday, 13 October 2017, 10:42 PM (2 days 2 hours)
Tuần 6 - (30/10/2017 – 05/11/2017) Bài 5: Family life		
Bài luyện tập trắc nghiệm 04 - LTTN04	194	Thursday, 12 October 2017, 9:39 PM (3 days 3 hours)

Figure 6.8. Learning Activities Monitoring System (LAMS).

- Virtual Classroom (VC): This allows teachers and students organize through online classes, where lecturers will directly give lectures and students can connect to the system to discuss directly with the lecturer and other learners. This type of class makes online learning not so different from traditional learning.

Figure 6.9. A virtual class in Hanoi Open University

- Live Class (LC): The advanced technology in the Studio is installed by Korean experts, which meets the high requirements of the image, special effect, and the ability to go live on the Internet. This is also one of the educational channels that attract many students.

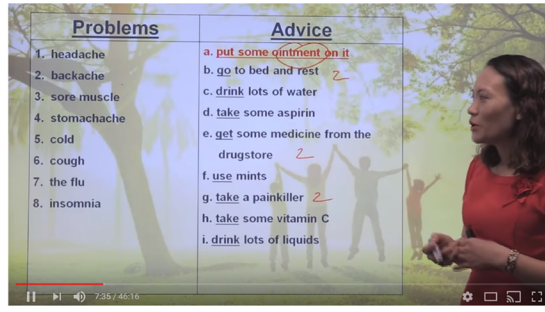


Figure 6.10. Live class for students of Hanoi Open University.

- Online Examination System (OES): This allows to organize examinations on computers at local centers with strict monitoring procedures through the camera, fingerprint recognition. Exams are held under regulations with tests made confidential. Candidates are given a test, print the tests themselves, and sign for confirmation before submission.

- Information security: The entire technology system meets the international information security standard ISO 27001: 2013.

d. Challenges Facing Open Education Implementation in Vietnam

Vietnam's open education is facing great challenges, which is reflected by the decrease in the number of registrations for ODL of universities across the country for many consecutive years. This contrasts with the general trend of the region and the world.

Currently, the enrollment of ODL has been increasingly facing many difficulties, partly because the main source of enrollment comes from those who already have jobs, have completed university and college programs, and want to attend fostering classes for professional skills, and do not need to get any degree. Many newly established universities have created opportunities for students to choose more, reducing the market share for open education; more and more high school graduates choose to study vocational training rather than study in a university or college.

In spite of many proper guidelines and policies for developing open education, there has not been any strong investment to synchronously develop this training methodology. Open education requires a large initial investment in technology infrastructure, learning materials, development of teaching team, and examination tasks.

Many institutions are interested in deploying ODL at the university level but have not designed short-term fostering programs and MOOCs, so they have not met the diversified learning needs of workers and society.

Standards have not been formulated and quality for open education programs and ODL has not been verified. Additionally, social awareness has remained a distinction of quality and value of diploma between training modes of online distance learning and full-time.

SURVEY RESULTS ON REALITY OF OPEN EDUCATION EMPLOYMENT IN VIETNAM

In order to learn about the current reality of open education employment in Vietnam, the author collected comments through a survey of 3 target groups: Heads of institutions (management agencies, universities, and enterprises), Instructors, and Learners. At the same time, in-depth interviews with education policymakers and experts were conducted.

The questionnaire was designed to gather data and information about the state of practice of open education in five countries of ASEAN, namely Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Open education in this questionnaire is defined as any initiative, program, project, or policies related to the development and deployment/offering of open educational resources/open content, open courses/MOOCs, open-source software, open educational platform, and open learning.

Survey and interview results were analyzed specifically as follows:

a. Knowledge and Perception about Open Education

When asked about their understanding of open education, over 75% of the respondents answered that they understand what open education means. Particularly, the result in Figure 6.11 shows that up to 81% of organizations' leaders, 73% of teachers, and 77% of students know about open education. Thus, it can be seen that the guideline of basic and comprehensive innovation of education and development of an open education system since 2013 has been clearly understood by leaders of the organizations and directly studied by learners themselves. Young people search not only domestic education programs but also many online courses of foreign learning programs, and they access such sources on their smart devices. However, the largest proportion of the research participants who do not know about open education comes from the teaching staff. This is because many of them still teach their students in traditional classes, without participating in teaching, developing programs or curricula for open education and ODL.

Those who know about open education have also expressed their opinions about it with the following points of view:

- free education,
- education with low cost,
- beneficial for society,
- government program for the people,
- free software for education,
- free books,
- a philosophy about education for all,
- non face-to-face education, and
- I do not know at all.

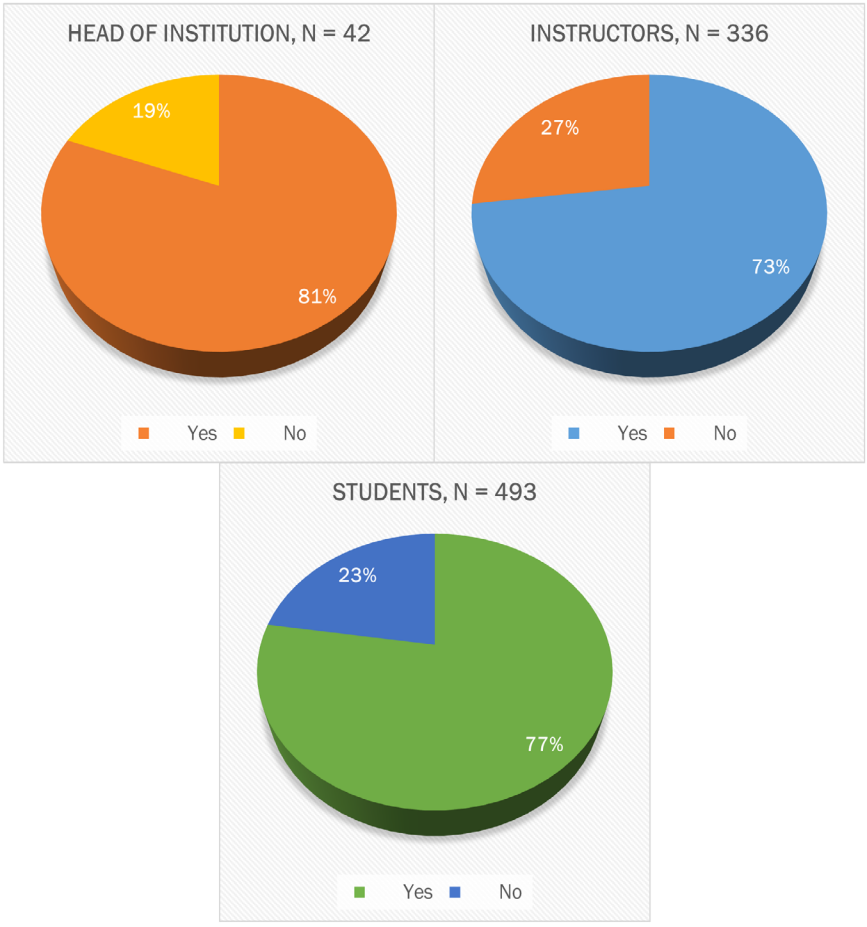


Figure 6.11. Knowledge about Open Education.

Specific results on the viewpoints of three target groups are shown in Figure 6.12. Over 90% of organizations' leaders and students who were asked about their viewpoint on open education selected "A philosophy about education for all", and 82% of teachers share the same viewpoint. This is also the one with the highest selection rate among the ones mentioned. That demonstrates the fairly clear philosophy of open education. The flexibility that open education offers, in which students can study anytime and anywhere, has attracted the participation of many people, making a huge contribution to training quality human resources.

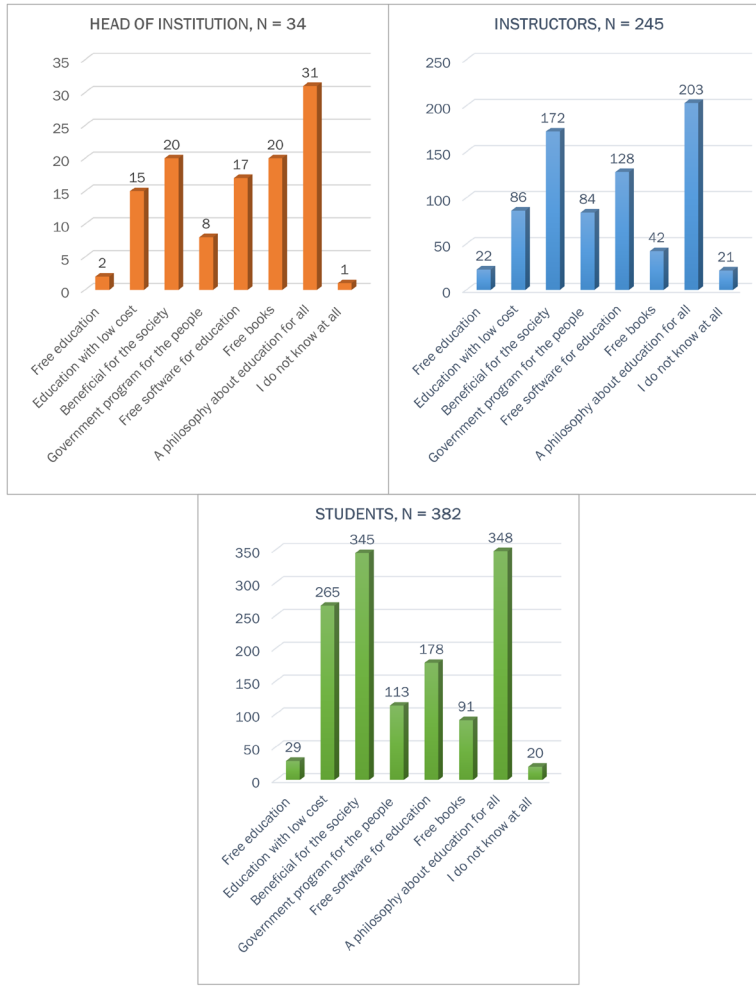


Figure 6.12. Perceptions about Open Education.

Many respondents believe that open education is “beneficial for society”. Figure 6.12 shows quite similar viewpoints on open education, but only the viewpoint of open education means providing “Free books” shows different opinions among the leaders and teachers and students. Heads of institutions consistently share the view that open education optimally provides learning software and materials, free textbooks for learners. But in practice, teachers and students mostly think that textbooks are included in tuition, but not free of charge. Each module is only provided with one main book and the references are quite limited.

For the cost of open education, students think that the tuition for open education is lower than that of the traditional "face-to-face" training; however, at this time, many leaders and teachers have not considered open education to be low-cost because of expensive initial investments for infrastructure, developing learning contents and materials, as well as testing and evaluating system. When it is synchronously operated with the participation of a large number of learners, it is certain that the investment/ student rate will significantly decrease.

The answer to the next question: *"What is your opinion about open education reality in Vietnam?"* is shown in Figure 6.13. Accordingly, 59% of organizations' leaders know about the role of two Open universities in Vietnam, namely, Hanoi Open University and Ho Chi Minh City Open University. The remaining 41% said that, in addition to the two universities, many universities have deployed open education.

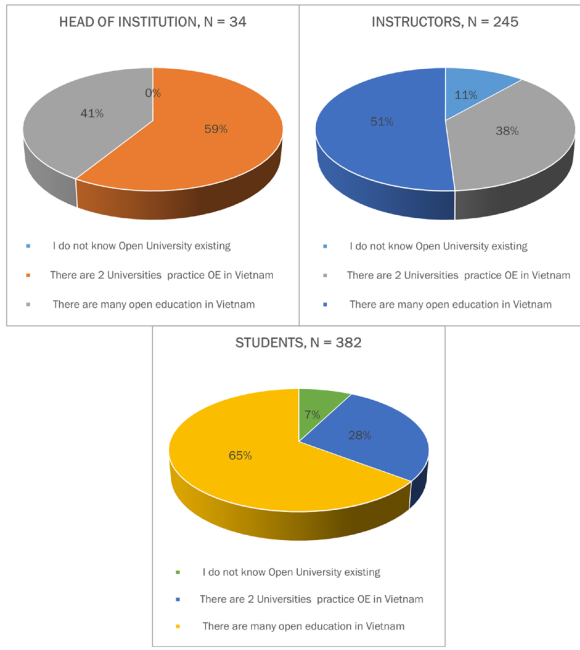


Figure 6.13. Knowledge of Open Education Practice in Vietnam.

The fact that currently, in Vietnam, 1 enterprise and 21 universities have been allowed by the Ministry of Education and Training to implement online distance learning at the university level, the organization has implemented

online training courses for a number of subjects, fostering course. Meanwhile, only 38% of teachers and 28% of students know about the two open universities; although these two already have a long experience in studying and organizing training courses in the form of open education and online distance learning. Both of them have been certificated and verified for non-institutional training and have been providing society with abundant human resources to meet the requirements of the labor market. The survey results show that open universities should further develop diversified courses for many subjects and propagate this effective learning method for society and learners directly and simultaneously. Additionally, the Vietnamese Government should issue-specific policies on developing two universities into outstanding units. Thereby, these two universities can promote and complete their political tasks, which are the core factors to develop an open education system, a sound foundation to develop a learning society, and lifelong learning.

b. Involvement in Open Education Program

To learn about the practical implementation of open education, a survey has been conducted on organizations and individuals. It aims to learn about their involvement and initiatives in open education and to learn about their knowledge of its practical implementation in Vietnam.

Responses of Head of Institutions

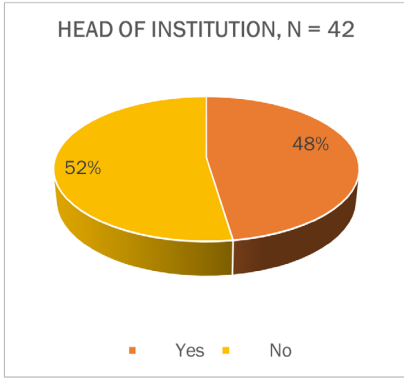


Figure 6.14. Involvement in Open Education Practice in Vietnam

Twenty out of forty two respondents (accounting for 52%) confirmed that their organization directly deployed or has been involved in open education implementation (Figure 6.14).

Of the 20 leaders involved in open education, most of them asserted that open education did not provide entrance exams and did not have an age requirement. The viewpoint that open education is low-cost, but not free, is also appreciated by the majority. The survey result is shown in Figure 6.15.

Combined opinions of the 20 heads of institutions of organizations involved in open education are shown in Figure 6.15. 70% of units have developed and applied Online materials and 60% of units have online courses based on the development of technology, infrastructure, and Online software; however, among them, only 5 units have deployed the Online study program, and 2 units (10%) have implemented MOOCs.

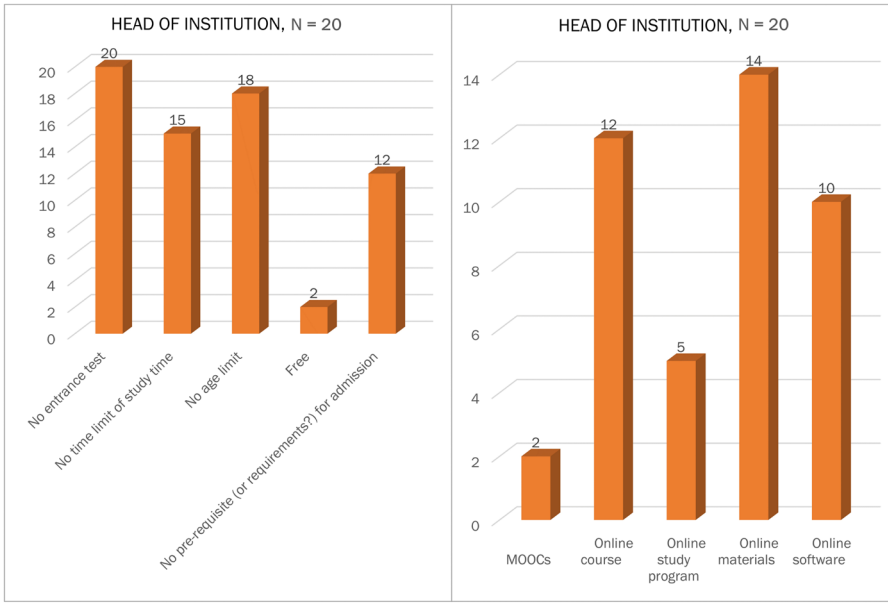


Figure 6.15. Head of Institutions with Open Education Practice.

Responses of Instructors

Of the 336 instructors interviewed, only 132 instructors (accounting for 39%) think that their organization has implemented or has been involved in open education (Figure 6.16). This result is also appropriate to the reality since out of the nearly 300 universities, only 21 (accounting for 7%) are allowed to deploy open education and open distance learning.

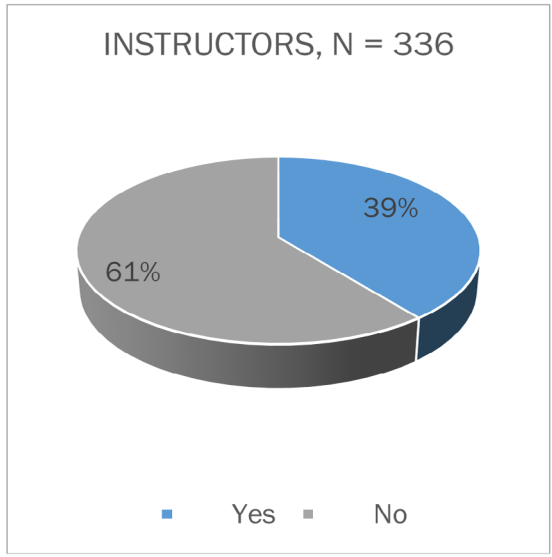


Figure 6.16. Instructors Involvement with Open Education.

Instructors of the units involved in open education have a similar viewpoint to that of the organizations' leaders when asked about the practical implementation of open education in Vietnam. Figure 6.17 shows that the majority of instructors noted that open education did not have any entrance exam (93%), and the age limit (91%). Only 17% of instructors said that open education is "free", while the leader group's rate is 10%. However, instructors believe that open education also sets certain requirements for learners, while 60% of the leaders (Figure 6.15) argue that the reasons for the absence of precondition for learners are flexibility and individual orientation of open education programs.

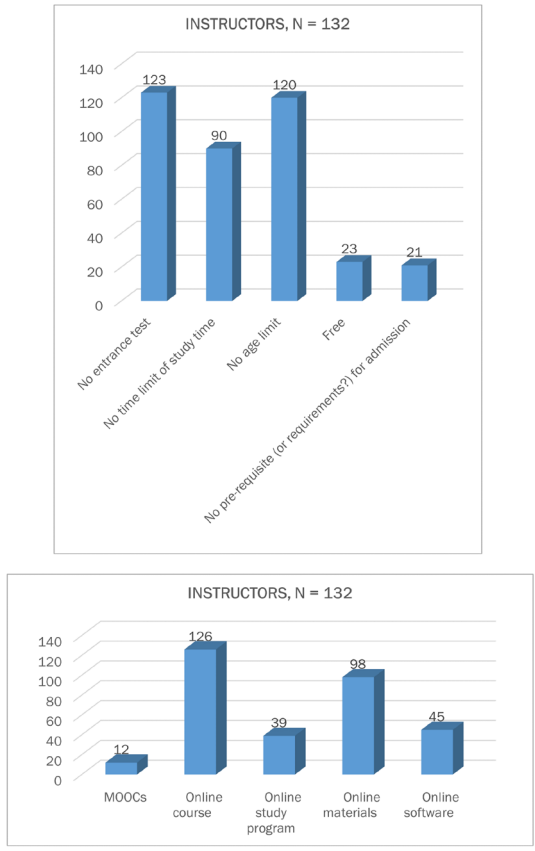


Figure 6.17. Instructors with Open Education Practice.

The methods for open education are viewed by instructors to mainly include Online courses and Online materials, while Online study programs and MOOCS have not developed much in training institutions in Vietnam.

Responses of Students

Among the 3 surveyed groups, students interviewed with involvement in open education and open distance learning make up the highest percentage, because a majority of them have attended or are attending open distance learning at training institutions. The survey results are shown in Figures 6.18 and 6.19.

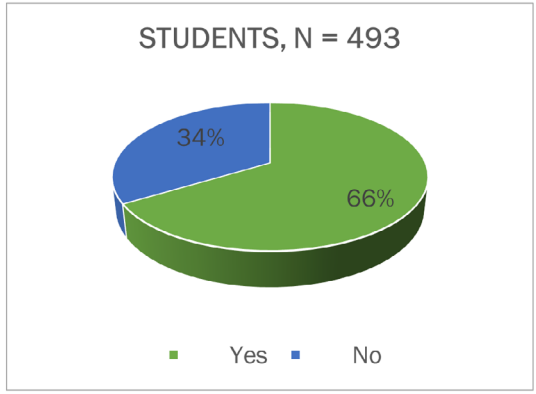
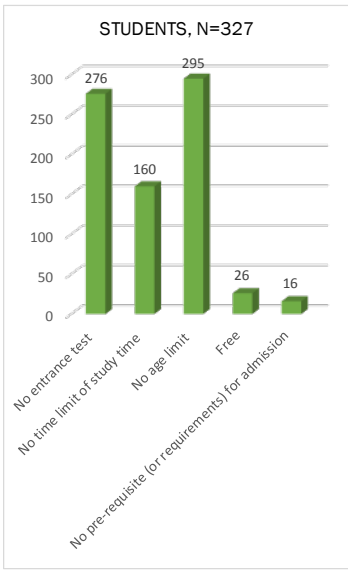


Figure 6.18. Students Involvement with Open Education.

With the same opinion as to the heads of institutions and instructors, students affirmed that open education does not have any entrance exam and age limit. If it has, it is administered only to determine the appropriate level before the course. In HOU, students registering for open distance learning are required to study two modules, including Computer introduction and Distance learning method.



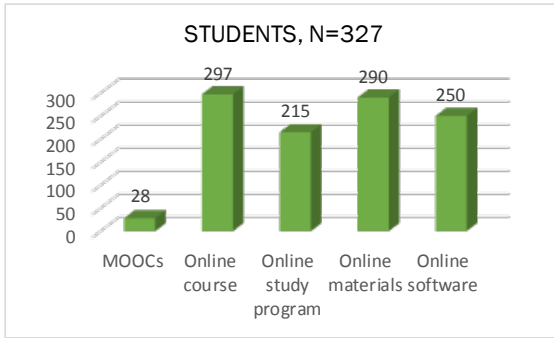


Figure 6.19. Students with Open Education Practice

Therefore, the majority of students believe that there are requirements at enrollment and only nearly 5% of believing that there is "No pre-requisite for admission".

Figure 6.19 shows that the majority of students participating in open education uses "Online materials" and participate in "Online course, Online study program". Particularly, only 28 students (accounting for 8.6%) join MOOCs. Therefore, training institutions, particularly open universities, should develop and deploy MOOCs with the goal of meeting the diverse learning needs of learners.

c. Some other organizations providing open education in Vietnam

Vietnam Association for Promoting Education

Vietnam Association for Promoting Education (VAPE) was established in 1996 with the mission of "promoting learning, talents, developing the whole country into a learning society."

To date, VAPE has undergone 23 years of establishment and development, with nearly 17 million members operating throughout the country, and with numerous outstanding achievements. Currently, the number of its member in the country has reached 17,650,000, accounting for 19.2% of the population. Particularly, the number of unit association is 12,641; branch association is 159,579; the board is 117,966, and all the figures have steadily increased over the years.

The Association has 3 basic functions, including:

- encouraging and creating conditions for all Vietnamese people, rich and poor, to benefit from and have equal rights in education, so that they may be able to improve their knowledge constantly;

- supporting necessary conditions for teachers, first of all, teacher training institutions to stabilize their lives, set their mind at rest with the job, constantly improve their professional knowledge; and,

- consulting on education career development for functional and local agencies.

With these functions, the Association has expanded its activities to all districts, communes, townships, wards, and towns to residential groups, clusters, villages and hamlets, clans, agencies, enterprises. Along with that, millions of citizens, particularly the poor, policy families, and very good students have directly gained benefits from the results of the movement of learning, talent promotion.

The Association actively signed cooperation deals with most ministries, branches, departments, and socio-political organizations related to learning and developing learning society, such as: Ministry of Education and Training; Ministry of Labour - Invalids and Social Affairs; Vietnam General Confederation of Labour; Ho Chi Minh Communist Youth Union; Vietnam Women's union; Vietnam Association of the Elderly, etc. This is a premise step to help the learning promotion movements intensively and extensively be spread to citizens, becoming a stronger wave than ever in agencies, organizations, universities, colleges, and the whole population from the grassroots level.

The Ministry of Education and Training is in charge of organizing and providing learning materials and the Vietnam Association for Promoting Education will mobilize people and maintain classes at the community learning centers. Particularly, the Association has coordinated with universities and training institutions to provide many open courses for people, without limitation of space, time, and subjects of learners.

SEAMEO Regional Training Center (SEAMEO RETRAC)

Southeast Asian Ministers of Education established in 1965 with the target of promoting sustainable development through cooperation in education, science, and culture.

As an organization that fosters the capacity and discovers the full potential of people, SEAMEO maintains its work and general aspirations in improving the quality of life and fairness in education for people. SEAMEO Council is the organization's highest policy-making agency, including 11 Southeast Asian Ministers. The SEAMEO Secretariat is based in Bangkok, Thailand.

Vietnam was recognized as an official member by SEAMEO Council on 10 February 1992. The SEAMEO Regional Training Center is located in Ho Chi Minh City (SEAMEO RETRAC). SEAMEO RETRAC was put into operation in

October 1996. In February 1999, SEAMEO Council agreed to approve education management as the major of SEAMEO RETRAC. SEAMEO RETRAC strengthens cooperation with SEAMEO centers, domestic and foreign organizations, and agencies in making contributions to the development of Southeast Asia and the world.

With headquarters located in Ho Chi Minh City, SEAMEO RETRAC in Vietnam supports SEAMEO member countries, particularly Cambodia, Lao PDR, and Vietnam in determining and handling common issues about education, especially education management, at all levels.

Additionally, the center also organizes programs on training and fostering foreign language and information technology, training teachers, and facilitating other training programs in line with learners' needs.

SEAMEO RETRAC is located in the city center with over 40 classrooms and conference rooms, a language learning room, an advanced computer room, a library, and an international meeting room with a capacity of over 150 people.

All classrooms and conference rooms are equipped with modern teaching facilities, such as internet-connected computers (ADSL and Wi-fi) and lecture systems using LCD projectors, smart interactive boards. A new system of teleconferencing network is equipped for online meetings, conferences, and training programs.

SEAMEO RETRAC concentrates on all its efforts to implement international innovation programs in study, training, consulting, expert exchanging, and developing international cooperation.

SEAMEO regional center for lifelong learning in Vietnam (SEAMEO CELLL)

This center focuses on the study and training on lifelong learning as a basis for developing educational policies. Over time, the center has focused on:

- organizing policy forums on open education;
- developing learning cities to implement lifelong learning;
- developing national policies and strategies for lifelong learning in Southeast Asia; and,

- collecting resources for lifelong learning and group them by topics of: Adult education; Learning city; EFA: Education for all; Lifelong Learning; LLL system; LLL general; MDGs: millennium development targets; MOOCs: Massive open online course.

SEAMEO CELLL Center and the UNESCO Institute for Lifelong Learning (UIL) took the initiative and deployed Southeast Asia's lifelong learning online portal at www.SEA-LLLportal.org.

The online portal www.SEA-LLLportal.org is a component of the project "Towards an agenda on lifelong learning for ASEAN countries" aiming to support SEAMEO member countries in developing and implementing overall and comprehensive policies on lifelong learning, connecting different areas and forms of learning. The online portal will play the role of a center for exchanging information, policies, and proper practice for lifelong learning in the region. The portal also serves as a forum for policymakers, researchers, scholars, experts, and teachers to exchange and discuss theory and practice in the field of lifelong learning in the region. Search function by keyword:

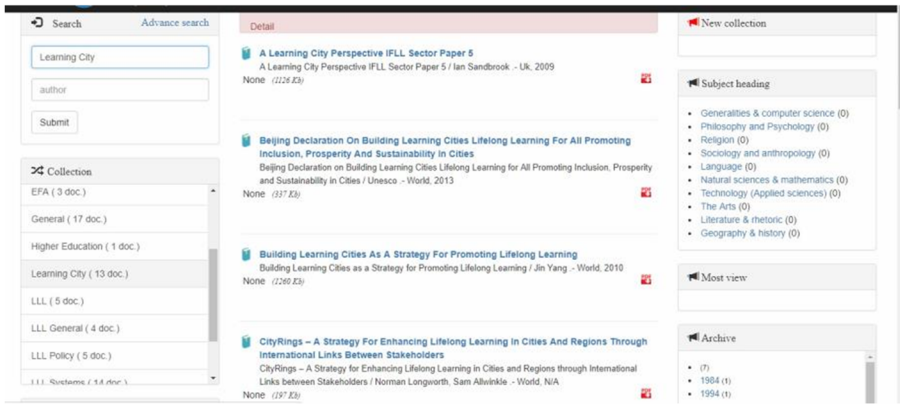


Figure 6.20. Searching the functions by keywords (sample)

TOPICA Educational Technology Complex

TOPICA Educational Technology Complex is an enterprise investing in online training.

- TOPICA UNI is a product of TOPICA Educational Technology Complex in collaboration with universities in Vietnam, the USA, and the Philippines in order to deploy a program of high-quality bachelor online training, in which, universities are the governing units for enrollment, professional operations, examining and granting university degrees.

- TOPICA Native launches a Program on online English-speaking for students in Thailand, Indonesia, and Vietnam, and develops a speaking application via Google Glass.

- TOPICA Founder Institute is a start-up incubator in Vietnam with start-ups receiving domestic and foreign investment.

- TOPICA has 1400+ full-time staff, 1000+ part-time trainers in offices of Manila, Singapore, Bangkok, Hanoi, Ho Chi Minh City, and Da Nang.

In Vietnam, in the past few years, enterprises and universities have strongly invested in the development of the model of open education, gradually attracting the attention of many subjects of learners. In order to increase interaction between teachers and learners, many universities have collaborated with companies in providing online training technology solutions, such as the online English program, namely Language School of the Foreign Language University, in combination with E-learning and E-entertainment Service Development Joint Stock Company (Net2E). Participating in this program, students will receive the optimal support from the customer care department and teaching assistants, such as encouraging learners and reminding them of their learning progress, assessing learning ability, and answering questions during the learning process. The collaboration model among universities and technology companies is quite successfully applied by many universities.

SOME SOLUTIONS TO DEVELOP OPEN EDUCATION IN VIETNAM IN CONTEXT OF INTERNATIONAL INTEGRATION

Open education is identified as one of the crucial orientations in the strategy for education development. In order to realize it, there are some solutions that should be deployed by educational institutions. These are as follows:

- Strengthen the training scale of open education and ODL (Open and Distance Learning) to contribute to improving people's intellectual standards and meeting the demand for quality human resources for society. The enrollment is implemented in an approach of case-by-case for learners to acquire and consult each learner with the most possibly appropriate training program. In order to target personalization in enrollment, training institutions should rely on information technology, particularly social networks, and diversified communication systems; develop a modern enrollment process with an online management software system capable to connect individual learners, schools, and local institutions with a wide network of enrollment collaborators, all in-house and out-of-school officials and teachers at affiliated institutions, so that even students under study process and former ones can participate in the ODL enrollment process after they have been trained in TOT sessions.

- Along with the orientation of ODL scale development, quality is the top concern for sustainable development of a training form. Therefore, special attention should be given to ODL quality assurance, on the basis of coming up with a set of standards, criteria, and a quality measurement tool in education. Vietnam's open education is part of the open training system of Open universities in the region, so it should apply the Common Quality Assurance Standard for Open Education in Asian countries developed by the Asian Association of Open Universities (AAOU).

- Develop a set of appropriate learning materials systems for each form of open education to equip learners with the most useful and adequate tools for self-learning and study. Learning materials in distance learning are very diverse. Accordingly, in addition to hardcopy materials, they are also in such other forms, such as video, audio discs, radio, television programs, electronic learning materials, guiding materials, case questions, and interactive exercise systems

on computers. In developing learning materials for open education and ODL, attention should be given not only to developing content but also to developing ideas and scripts for each type of learning material. This needs strong support from modern transmission technology. These are indispensable criteria when verifying the quality of learning materials for distance learning.

- Open education should be designed to be flexible and connected among other forms of training and with the environment outside the system. It should be flexible in developing the learning program in order to make it appropriate to the training major, the demand for human resources of the society, the participation and absorption ability of the learners.

- Develop modern technology in open education, this technology consists of 3 basic elements of *infrastructure, learning material system, and assessment tool system*. Facing the current strong development of communication technology - informatics as a challenge, ODL technology should also combine the application of modern technology, using training technologies of e-learning, mobile - learning and strive to form a cyber university. ICT should be strongly applied to develop a highly interactive learning environment, connecting teachers with learners, learners with learners, learning with practice. The development of online training technology should be promoted including LMS, learning content management system (LCMS), technical and technological (hardware) facilities, simulation software serving training and fostering tasks, etc., to meet the diverse needs of learners in the digital era.

- Develop teachers and learning counselors to contribute to improving the quality of distance learning. The key role of participating teachers is to provide guidance to learners. Teachers participating in online teaching must have skills to teach on online training technology, in addition to ensuring professional qualifications. With the characteristics of distance learning, support for learning plays a crucial role in organizing a successful course, providing training efficiency. Therefore, learning counselors should be trained and dedicated to remain professional at work.

- Organize examination and assessment of learning results to ensure the standard capacity in open education. Strictly examining and assessing students' learning results is a crucial element to ensure the quality of training in general and distance learning for higher education, in particular. Only when proper and serious examination and assessment are required would training products be accurately screened, earning the trust of people in the quality of training.

- Strengthen the deployment of online and short-term courses to support regular training and fostering for teachers; forming forums for teachers, managers, collaborators, etc., exchanging their experience in the field of open education; at the same time, providing knowledge and skills for learners with needs in all areas.

- Study, refer to international experience to standardize the examination and quality assurance system, including developing exam question banks, process and technology for independent examination, assessment, verification, etc., to ensure objectivity, quality and efficiency.

- Promote socialization in developing open education, mobilize all intellectual, financial, and physical potentials in the whole society, create a variety of resources for developing open education. Everyone and every organization should, take responsibility in creating conditions, and making contributions to improve the quality of distance teaching.

- Promote and raise social awareness about open education to help people clearly understand its characteristics and benefits in training and fostering. This shall help them improve their qualification and update their knowledge and skills. It will also help in training human resources, improving intellectual standards for the labor force, and developing the whole country into a "learning society".

- Strengthen international integration in open education towards the direction of expanding cooperation and training cooperation with prestigious foreign institutions at higher education level in fields of Exchange of experts, programs and technology, examination, verification, diploma recognition, etc.

CONCLUSION

Open education and ODL have been formed and developed in Vietnam since the early 90s. We cannot deny the positive contribution of this method to the country's socio-economic state. This is reflected in the fact that open education and ODL have positively contributed to improving people's intellectual standards, training and fostering human resources, particularly local human resources for mountainous and remote provinces, and at the same time, contributing to the implementation of equality in education, creating opportunities for lifelong learning, and overcoming difficulties in geographic distance between learners and training institutions.

For universities implementing ODL, they have made great efforts in organizing training management, examination, and assessment, graduation exam in accordance with regulations of the Ministry of Education and Training, preparation of learning materials, particularly hardcopies provided to students in an adequate and timely manner. With all these, the quality of distance learning has gradually improved.

Although it has been implemented for a quarter of a century, ODL in Vietnam is still in the process of development, and its implementation progress is still limited. In order to meet the needs of this training type, the most difficult issue is to raise awareness and innovate at any costs. Both our view and the reality from Vietnamese history do confirm that human is the decisive factor for society. The subject and object of education are all for humans.

Survey results in the study about awareness of organizations' leaders, teachers, and students show that not all people have the right understanding of open education, and that actually, the open education implementation needs more improvements.

In the era of information and knowledge-based economy, many countries in the world and in the ASEAN region consider open education to be an effective tool for lifelong learning and development. This also compels them to innovate to be at par with other countries and to take their socio-economy to a new level. Open education is an inevitable trend in the world, so it will be implemented by many governmental agencies, private organizations, and companies, enterprises, creating a necessary competition. Therefore, policies and documentation should be made to ensure the proper implementation of

different organizations. This shall ensure fair and transparent competition among them.

REFERENCES

Association of Universities and Colleges of Vietnam. (2018). *Open education system in the context of educational autonomy and international integration.* Information and communication Publishing House.

Bates, AW. (2005). *Technology, E-learning and Distance Education*. New York: Routledge.

Belawati, T., & Zuhairi, A. (2007). *The practice of a quality assurance system in open and distance learning: A case study at Universitas Terbuka Indonesia (The Indonesia Open University)*. The International Review of Research in Open and Distributed Learning.

Chang, S. (2004). *Online learning communities with online mentors (OLCOM): Model of online learning communities.* The Quarterly Review of Distance Education.

Decision No. 1559/QD-TTg dated 10 September 2015 of the Prime Minister approving the Scheme of *"Developing distance learning in the period of 2015 - 2020"*.

Documents of conference of 8th, 9th, 10th, 11th Central Committee of the Communist Party of Vietnam, Office of the Party Central Committee, Hanoi.

Duc, TK. (2010). *Education and human resources development in 21st century.* Vietnam Education Publishing House Limited Company.

Duong, N.M., & Kha, P.V. (2006). *Human resources training to meet the needs of industrialization - modernization under the context of market economy, globalization and international integration.* Vietnam National University Press.

E.X. Polat. (2006). *Theory and Practice of Distance Learning,* translated by Le Tien Dung. Vietnam National University Publishing House.

General Statistic Office of Vietnam. (2018). *Report on labour and employment survey 2018*.

Jung, I., & Latchem, C. (2012), *Quality assurance and accreditation in distance education: Models, policies and research*. Routlegde.

Kha, P.V. (2007). *Training and employment of human resources in market economy of Vietnam.* Vietnam Education Publishing House Limited Company.

Ministry of Education and Training. (2017). Circular No. 10/2017/TT-BGDDT dated 28 April 2017 *Issuing Regulations on Distance learning at higher education level*.

Ministry of Education and Training. (2017). *Summary Report of the National Workshop on distance learning education*.

Ministry of Education and Training. (2012). *Basic issues in managing regular education institutions (Materials for fostering managers of Regular education institution).* Vietnam National University Press.

Moore, M.G., & Kearsley, G. (2006). *Distance education: A systems view.* Belmont, CA: Wadsworth Publishing Company.

Phuc, N.V., & Hung, N.D. (2012).*Developing human resources to meet requirements of industrialization, modernization and international integration.* National Political Publishing House.

UNESCO. (2002). *Open and Distance Learning Trends, Policy and Strategy Considerations.*

Summary and Concluding Remark

Tian Belawati, Grace Javier Alfonso, & Jean Saludadez

CHAPTER 7

The five countries reported in this book clearly embrace the notion of open education philosophy in their efforts to provide access to knowledge and education. The five countries believe in open education and in the open university model to widen access to higher education, and despite the use of different nomenclatures, they have, to some extent, variously integrated the notion of open education in their laws and regulations. The state of practice therefore also varies from one country to another.

The National Policies

Indonesia has adopted open and distance education for at least 33 years with the establishment of Universitas Terbuka (UT) in 1984. The contribution of this open distance education system to the national participation rate of higher education has been significant as shown by the fact that 4% out of the 33.3% national participation rate is from the UT student body. It seems that the long existence and the significant contribution of UT have introduced and made people aware of the benefit of open education in Indonesia. This has also moved the government to officially adopt open and distance education terminology in the laws and regulations that permit and encourage other universities to also develop and offer open, distance, and online educational programs. The Government of Indonesia's commitment to capitalizing on distance and open education is formally stated in the National Education Law (UU no. 20/2003), the Higher Education Law (UU no. 12/2012), the National Higher Education Standards (Permendikbud no. 49/2014), and the Government Regulation on Higher Education Governance (PP no 4/2014). All laws and regulations in principle confirm and legalize the use of distance education, technology-enhanced education, and online education as part of the national education system. Open education, although it is not explicitly mentioned in the legal documents, is understood to be a part of the distance

and online education method. In fact, opening access to educational materials and courses has now been practiced by various institutions and enforced by the government.

The emergence of the open education concept in **Malaysia** way back in the 1970s began as distance education. Despite the long history, of around 48 years, the establishment of open education at the national level under the initiative of the government only began in 2000 (after 30 years) with the establishment of OUM as the country's first ODL learning higher education institution (HEI). Today, Malaysia has three private ODL institutions: OUM, WOU, and AeU; the role of open universities in the country is important. This is evident by the recognition of lifelong learning as the third pillar of Malaysia's Human Capital Development System (MOHE, 2011). The Blueprint on Enculturation of Lifelong Learning for Malaysia: 2020 listed five key success factors: (1) Lifelong Learning Policy in Malaysia, (2) Adequate Financial Support, (3) Quality Assurance Framework, (4) National Promotion/ Awareness Campaign, and (5) Conducting Research and Development (MOHE, 2011). In Malaysia, the providers of lifelong opportunities are not confined to the three open universities (Open University Malaysia (OUM), Wawasan Open University, and Asia e-University), but also extended to the public universities through their distance education centers. In line with the growing interest among the universities for providing lifelong learning opportunities, the Malaysian Qualification Agency (MQA) provides a separate quality document for open and distance learning (ODL) providers in the form of Code of Practice for Open and Distance (COP-ODL). The quality assurance framework for open universities could be widened through an integrated framework that offers inclusivity and global recognition towards open education.

In the **Philippines**, open learning is recognized as an educational system accessible to every individual with minimal restrictions by offering a flexible system to minimize barriers like age, geographical location, time constraints, and economic situation; it covers distance education, transnational education, and open distance e-learning. The University of the Philippines Open University (UPOU), established in 1995, has been mandated to democratize access to higher education through distance education. The Commission on Higher Education (CHED) is a regulatory body that controls the process of granting authority to offer programs via distance education and monitoring and evaluation of programs. Related to distance education, CHED has issued several Memorandum Orders consisting of (1) No. 27- S-1995_Policies and

Guidelines on Distance Education, (2) No. 5, series of 2002, Moratorium on the Opening of Programs via the Open Learning and Distance Education (OL/DE) both Print and Non-Print Mode and the Monitoring and Evaluation of all Higher Education Institutions offering OL/DE programs, and (3) No. 27, Series of 2005, Policies and Guidelines on Distance Education. CHED has also issued memorandums related to transnational education, including No. 06- S-2003_Policies and Guidelines on Transnational Education (TNE), and (2) No. 62- S-2016_Policies, Standards and Guidelines (PSGs) for Transnational Education (TNE). Especially for ODL, The Republic Act (RA) 10650, or the "Open Distance Learning Act" signed by President Aquino III on December 9, 2014, was launched to expand and further democratize access to quality tertiary education through the promotion and application of open learning as a philosophy of access to educational services, and the use of distance education as an appropriate efficient and effective system of delivering quality higher and technical educational services in the country.

Thailand's Educational Systems were changed in three periods according to legislative enactments: (1) before the enactment of the National Education Act of 1999, (2) during the present National Education Act of 1999, and (3) the proposed Educational Reform of 2017. The full use of open and distance education techniques was developed and implemented by Sukhothai Thammathirat Open University (STOU), which, since 1978, was designed as a single-mode university using the full concept of open and distance education. With a mission to provide education to the people everywhere at any time, STOU uses the development and advancement of educational information, and communication technologies to foster the students through ODE appropriate to social infrastructure and students' readiness. STOU's latest Plan of 2018 introduces a new approach called the "On-Palm Education Model (OPE Model)," incorporating an AI tutorial system (AI-Tutors) for more efficient self-directed learning. With the new approach, STOU shall be transformed to become a Life-Along and Life-Long University (LALLU), giving more emphasis to Non-Degree Education via Informal and Non-Formal Education (INFE Model) on Life Education, Career Education and Experience Education Channel operated by the Office of Life Education-OLE. The INFE Model will provide a solid foundation for Academic Channel to provide undergraduate and graduate degree programs via Formal Education.

Open education and ODL have been formed and developed in **Vietnam** since the early 90s, and the positive contribution of this method to the country's socio-economy in the innovation process is undeniable. This is reflected

in the fact that open education and ODL have positively contributed to improving people's intellectual standards, training and fostering human resources, particularly local human resources for mountainous and remote provinces, at the same time, contributed to the implementation of equality in education, creating opportunities for lifelong learning of people, and overcoming difficulties in geographic distance between learners and training institutions. The role and importance of ODL for Vietnam's human capacity building is reflected in important policy documents such as in the Resolution of the 2nd Plenum of Term VIII of the Party's Central Committee (1996), the IX National Congress Document of Communist Party of Viet Nam (2001), the Education Law (2005), the Prime Minister Decision No. 112/2005 / QD-TTg, the Educational Development Strategy 2011-2020 approved by the Prime Minister under Decision No. 771/QD-TTg (2012), the Resolution No. 29-NQ/TW (2013), the Government's Action Plan promulgated along with Resolution No. 44/NQ-CP (2014), the Prime Minister Decision No. 1559/QD-TTg (2015) about Scheme "Development of Distance Learning for the Period 2015-2020", as well as the regulations on the university-level ODL (enclosed with Circular No. 10/2017/TT-BGDDT dated 28th April 2017 replacing the regulations promulgated under Decision No. 40/2003/QD-BGD&ĐT dated 8th August 2003) that at the same time sets the standards for quality assessment of ODL program. These documents show the commitment of the government and the party to meet citizens' learning demands and to develop the country through ODL.

THE IMPLEMENTATION

At the implementation level, the survey results clearly show some similarities among the five countries in the study. In terms of the stakeholders' knowledge and understanding regarding the notion of open education, among the surveyed stakeholders, the instructors are probably the ones with the most important roles in the current practice of open education. It is therefore interesting to see how instructors in different countries know and understand open education. Figure 7.1 shows that, except for Indonesia, most surveyed instructors in Malaysia, Philippine, Thailand, and Vietnam claimed that they understand what it meant by open education. It is important to note, however, that the number of instructor respondents among countries varies significantly (Indonesia: 1,327; Malaysia: 9; Philippines: 8; Thailand: 44; and Vietnam: 82). Therefore, it is worth noting that even though only 27% of Indonesia's instructors claimed to understand, it means that there are about 358 out of 1,327 instructors who understand the concept of open

education. In Indonesia, it seems that the instructor respondents were not sure about their own understanding as shown by the high percentage of respondents who did not answer the question compared to the percentage of those who answered "no."

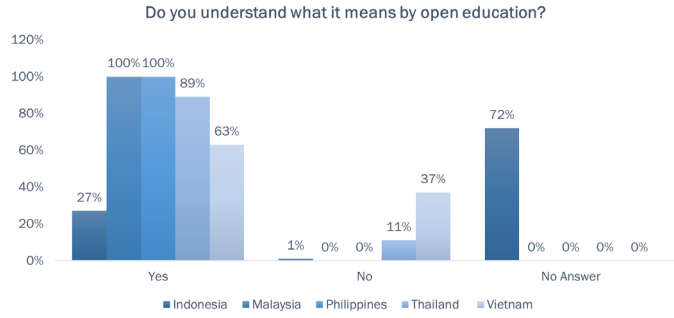


Figure 7.1. Comparison of Instructors' Understanding on Open Education.

If we compare students' responses, it seems that students in all countries are more confident claiming that they understand what open education is (see Figure 7.2).

Further exploration of the instructors' understanding of open education shows that most instructor respondents in Indonesia, Malaysia, Philippines, and Vietnam perceive open education as a philosophy of education for all.

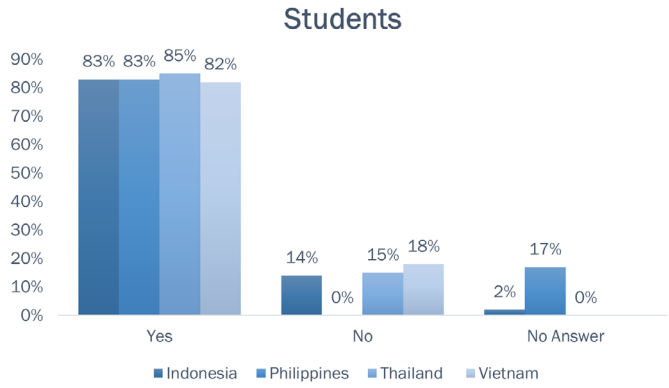


Figure 7.2. Comparison of Students' Understanding on Open Education.

On the other hand, most of Thailand's instructors (67%) interestingly think of open education as a form of free education (Figure 7.3). Country-wise, Figure 7.4 shows that the perceptions that are mostly chosen by the instructor respondents in different countries (chosen by more than 50% of respondents in the respective countries) are as follows:

- Indonesia: a philosophy of education for all, non-face-to-face education, and online education;
- Malaysia: low cost education, beneficial for society, free books, and a philosophy of education for all;
- Philippine: a philosophy of education for all
- Thailand: free education; and,
- Vietnam: beneficial for society and philosophy of education for all.

These views are somewhat different from those of students. Figure 7.5 shows the perceptions that are mostly chosen by the student respondents in different countries (chosen by more than 50% of respondents in the respective countries) are as follows:

- Philippine: low-cost education, beneficial for the society government program, free software, and a philosophy of education for all;
- Thailand: free education;
- Vietnam: low-cost education and beneficial for society; and,
- No particular perception is chosen by more than 40% of student respondents in Indonesia and Malaysia.

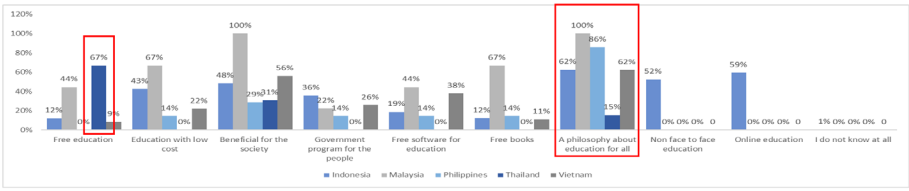


Figure 7.3. Comparison of Instructors' Perception of Open Education

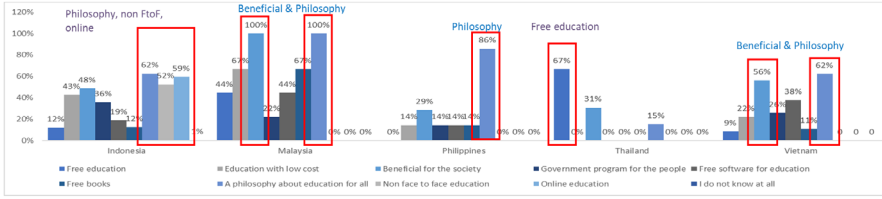


Figure 7.4. Comparison of Instructors' Perception of Open Education by Country

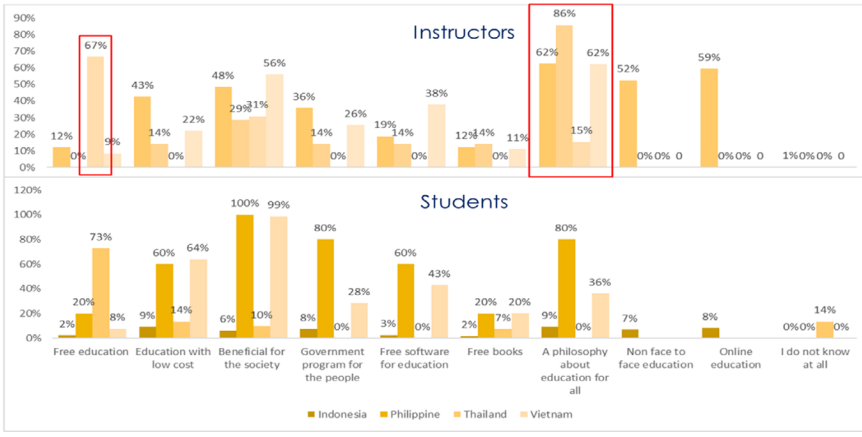


Figure 7.5. Comparison Between Instructors' and Students' Perception of Open Education by Country.

It is also interesting to see that in all countries, instructor respondents said that the implementation of open education in their institutions requires 'no age limit'. Meanwhile, with more than 70% of instructor respondents, 'no entrance test, 'no time limit', and 'free are claimed only by respondents from Malaysia and Thailand (Figure 7.6).

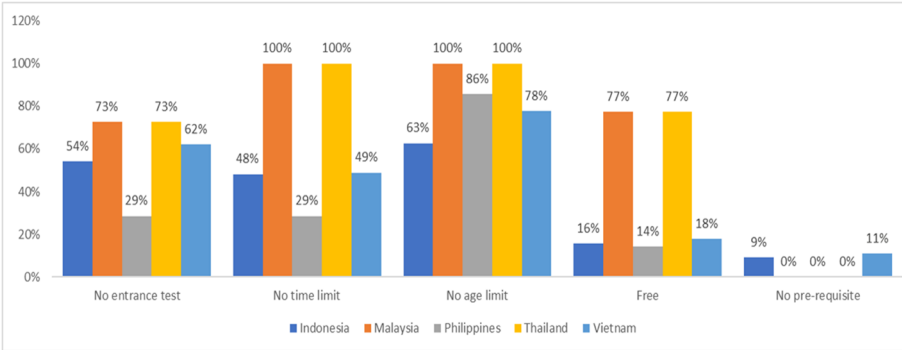


Figure 7.6. The Nature of Openness in the institutions' open education program/initiative/activity.

PROPOSED FRAMEWORK FOR INCLUSIVE OPEN HIGHER EDUCATION SYSTEM

In summary, the above survey results provide a good glance of the state of practice of open education in the five open universities in the ASEAN region. The governments of the five countries included in the study have adopted open and distance education in their national education systems. The various related laws and regulations show all governments' commitment to capitalizing on open education for human capacity building and justifying of educational opportunity. Similarly, the large number of students that have been served by the five open universities proved the acceptance of the open education system by the society at large.

The open university model in this study follows that of The British Open University, which was designed to widen the access of the people to university programs that are normally being offered as campus-based and face-to-face education. Open university model by history is therefore primarily focused on formal tertiary education, as shown by the five open universities in this study. The distance programs being offered aim mostly to help students obtain formal credential at bachelor, master, as well as doctoral level. The concept of openness in open universities is translated as "no age limit," "no time limit," "no entrance test," "can study anywhere and anytime," and for some "multi entry multi exit." Thus, the concept of "open" in the "open university" name refers mostly to the flexibility for the learners to do the "formal educational degree program." This understanding has been well understood and practiced by all five open universities and has resulted in

high productivity in terms of producing graduates with formal qualifications. Another important finding of this study also shows that the five open universities have embraced the use of current information and communication technology in their administrative and academic systems. They have integrated the online learning system as integral parts of their course delivery modes. They have, to some extent, also join the trend of developing and providing MOOCs and open educational resources (OERs). This is especially true for the UPOU. Nevertheless, the reports show that the adoption of both MOOCs and OERs are not yet integrated in the whole notion of their philosophy. MOOCs are still developed and offered as separate programs and not yet acknowledged as parts of their formal curricula. Similarly, most of the learning materials that are developed for their courses remain exclusive for their students and have not yet been declared as OERs. In other words, the notion of openness has not been touched on yet in their policies on the academic content of the programs.

On the other hand, as previously discussed, the concept of open education has evolved tremendously. Open education is an umbrella concept to remove the barriers of access to education for all learners. The various advancement in technology has triggered many movements and initiatives that have, in turn, given birth to new dimensions of its openness. Wiley & Green (as cited in Oblinger, 2012) mentioned that there are three principal influences of openness on education: OERs, open access, and open teaching. Similarly, OERu (2017) in its course of dimensions of open education highlighted that the concept of openness incorporates multiple dimensions including OERs, open educational practices (OEP), open textbooks, open policy, free open source software (FOSS), and open teaching/business model.

- *OERs are educational materials that are either licensed under an open copyright license (e.g., Creative Commons) or in the public domain. Thus, everyone enjoys free (no cost) access to the OER and free (no cost) permission to engage in the "5R" activities when using the OER (retain, revise, remix, reuse, and redistribute* (Wiley & Green, in Oblinger, 2012).

- *Open access refers to research outputs that are freely and openly available to the public for reading, reviewing, and building upon* (Wiley and Green, as cited in Oblinger, 2012; Suber, 2004).

- *Open teaching began as a practice of using technology to open formal university courses for free, informal participation by individuals not*

officially enrolled in the course (Wiley and Green, as cited in Oblinger, 2012). *This is also now known as MOOCs.*

- *OEP refers to the distinctive practices and processes which support the use and reuse of open educational resources (OER) at educational institutions* (OERu, 2017).

- *Open textbook is a textbook published under an open copyright license and is distributed online to be freely used by students, teachers and members of the public; and can be distributed in either print, e-book, or audio formats that may be downloaded for free or purchased at more affordable costs when compared to proprietary alternatives* (OERu, 2017).

- *Open policy promotes the adoption of government and institutional policies that promote unrestricted access and open licensing of resources financed through public and philanthropic funding in order to maximize the impact of the investment* (OERu, 2017).

- *FOSS refers to free and open-source software also known as free/ libre open-source software FLOSS, which is a software developed by collaborative networks of programmers and where the source code is released freely under open licenses facilitating modifications and improvements to the code* (OERu, 2017).

- *Open business model provides a plan for the successful and sustainable operation of a business, social enterprise, or philanthropic initiative based on openly licensed products or services. The business model identifies the value proposition, sources of revenue, the target markets, and details of the financing of open operations* (OERu, 2017).

Looking at those dimensions, it is somewhat obvious that the five ASEAN OUs have not completely practiced the newer dimensions of openness in their operations. Hence, at the implementation level, there still is a lot of space for enhancement and improvement. OUs need to expand their efforts in opening-up people access to knowledge and educational programs by embracing the other dimensions of openness.

Furthermore, at the national level, although there are open universities that consistently and significantly prove the effectiveness of open and

distance education for building human capacity and equalizing educational opportunity, the roles of other players in all countries are still limited and sporadic. The types of open education initiatives and programs that are currently dominated by the open universities' programs need to be intensified by other educational providers. More developers and providers of MOOCs, OERs, and open-source software need to be pushed and encouraged. The governments need to campaign about the potential of open education to enhance people's awareness, understanding, and willingness so that open education practice can be enforced and capitalized by society in general. Most importantly, to advance the capitalization of open education, the governments as the primary stakeholders of education need to adopt the open policy and put forward laws and regulations that would allow optimum participation and contribution of all stakeholders. Education systems need to converge informal-nonformal-formal education into one seamless system that would allow everyone to do gradual and lifelong capacity building. Such a system should provide space for everyone to contribute in creating knowledge and provide educational services to the public at various levels, and facilitate transfer of acknowledgment (e.g. credit, badges, certificates, etc.) of previous learning and experiences toward a formal qualification when needed or desired. The practices are known as an acknowledgment of prior learning, competency-based education, stackable courses, and micro-credentials should be adopted and encouraged. This way, the general public would have the freedom in seeking knowledge, so as to remove people's hesitation in taking the ample nonformal educational programs, such as those offered by MOOC providers, knowing that their learning experiences will be acknowledged if they ever want to obtain a formal credential. Encouraging people to take advantage of the abundant knowledge sources will accelerate the effort of creating a knowledge-based society. And most importantly, we will be able to use 'education' for achieving social justice. Everyone's right to education will be assured.

An envisioned picture of an open higher education system would be inclusive—one that capitalizes on all the resources available—and is accessible to both the higher education system's students and the general public (see figure below). The government may or may not want to establish a 'body' to facilitate and assure the quality and the credit transfer system and a repository of OERs and MOOCs. In the end, all learning experiences taken by any individual can lead him/her for obtaining any micro and or formal credentials from respective and chosen educational providers.

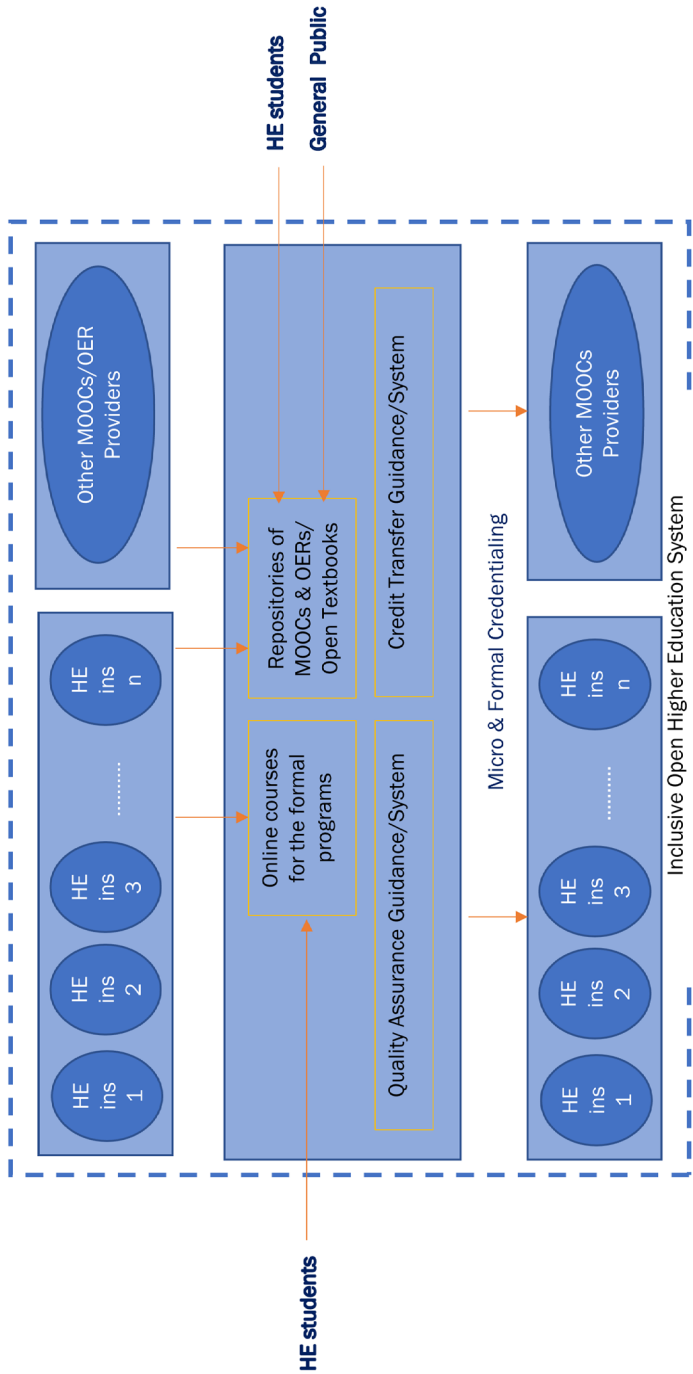


Figure 7.7. Open Higher Education Sysytem.

REFERENCES

OERu. (2017). *Dimensions of openness in education*. Retrieved from https://oeru.org/oeru-partners/otago-polytechnic/dimensions-of-openness-in-education-

Oblinger, D.G. (2012). *Game changers.* Education and educational technologies. Educause. Retrieved from http://www.educause.edu/books

Suber, P. (2004). *A very brief introduction to open access.* Retrieved from https://legacy.earlham.edu/~peters/fos/brief.htm

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