

Reaching Everyone in Education Towards Societal Transformation¹

R. Alpha Amirrachman, M. Phil., Ph.D.²

Abstract

As the globalization of the economy is progressing, international competition is increasing aggressively, the challenge of inequality is growing as well, including in education. In this digital world, the changing demands and skills acquisition continue to challenge formal education systems and call for alternative modes of learning. Today where technology is integrated into nearly every part of society, it has become a basic requirement as are subjects such as mathematics and science. With the development of the internet and multimedia technologies, distance learning has become a well-accepted and absolute part of educational systems worldwide to ensure equitable access to quality education and lifelong learning opportunities for all to promote the enhancement of digital literacy for public towards the smart future society. Southeast Asian Ministers of Education Organization Regional Open Learning Centre (SEAMEO SEAMOLEC) as a regional centre for open learning under auspices of Southeast Asian Ministers of Education Organization (SEAMEO) who seized its mission to assist member countries to enhance both equity and quality in education through the resolution of distance learning has been fostering its roles since 1997 to equip human resources in Southeast Asia region with knowledge and skills towards societal transformation in the coming future.

Keywords: open and distance learning, digital literacy, societal transformation

Introduction

Society 5.0 is a future and smart society where technology such as big data, Internet of Things (IoT), artificial intelligence (AI), and robots blended into every and across all social segments. This trend of information revolution is expected to be able to solve current educational challenges, making everyday life more comfortable and sustainable. However, there are still the existence of persistent challenges yet to face, the faster growth of technology the bigger of equality gap in society arises (Sukhothai Thammathirat 2019, I-Scoop 2020)

SEAMEO SEAMOLEC as a regional centre for open learning under auspices of Southeast Asian Ministers of Education Organization (SEAMEO) who seized its mission to assist member countries to enhance both equity and quality in education through the resolution of distance learning has been fostering its roles since 1997. As elaborated in SEAMOLEC Annual Report 2019 (2019) Addressing Barrier to Inclusion, as Priority Area Number 2 among other seven equally key priorities³, SEAMOLEC originated mission with its expertise and promise to assist Southeast Asia in enhancing human resources development through utilization of distance learning. Towards its promises through distance learning, the promotion use of ICT along with its digital literacy is equitable and become equivalent role of SEAMOLEC.

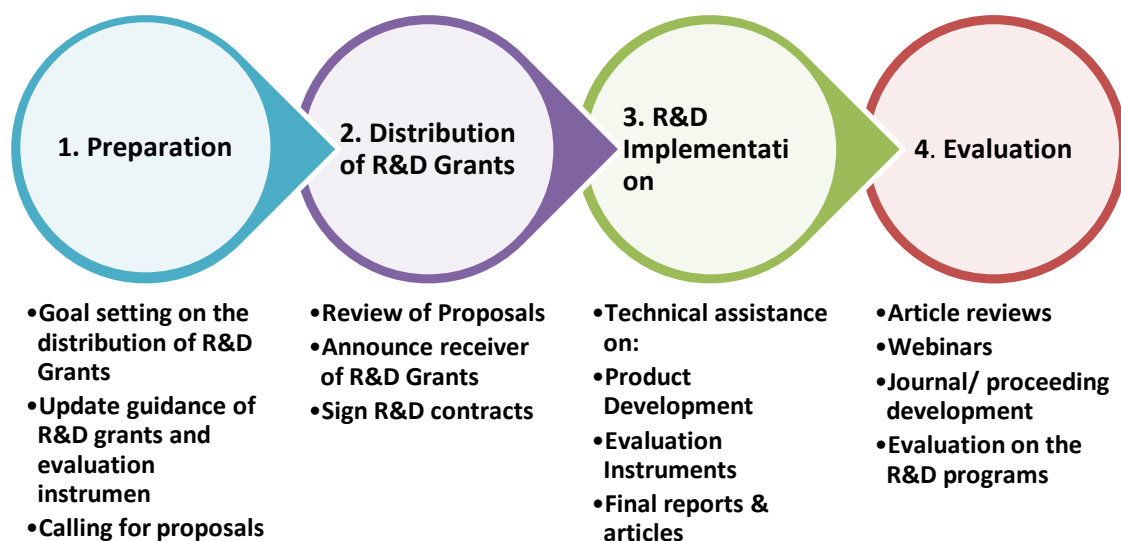
¹ Paper presented at the University of Tsukuba Symposium VIII, 13-14 February 2020, Tokyo Campus, University of Tsukuba, Japan.

² Director, Southeast Asian Ministers of Education Organization Regional Open Learning Centre (SEAMEO SEAMOLEC).

³ Seven key priorities: 1. Early childhood care and education. 2. Addressing barriers to inclusion. 3. Ensuring resiliency in the face of emergencies. 4. Promoting technical and vocational education and training. 5. Revitalising teacher education. 7. Promoting harmonization in higher education and research SEAMOLEC (2019).

In order to support the enhancement of digital literacy for public and promote the awareness for the use of technologies for education, SEAMOLEC has been performing its roles and practices in open and distance learning for society (teachers, students and public) to meet with equity and quality in education to prepare, foster and bring about human strengths for the rapid technological change and human-centered society in coming era of Society 5.0. Four core pillars that have become main roles of SEAMOLEC in reaching the unreachable in education are research and development in distance learning, open and distance learning model, training, and consultancy services in open and distance learning (ODL) and ICT for education.

Research and Development in Distance Learning. Aiming to facilitate research and development by educators related in Information and Communication Technology (ICT)-based Open and Distance Learning (ODL), SEAMOLEC research grants have been distributed every year to support, promote and motivate teachers, lecturers, educators from primary to higher education level to pursue their enthusiasm in areas of distance learning and ICT for education in Southeast Asia. Several main research themes are drawn to support educators, educational institutions and Centre’s policies and direction through inputs from research findings. In conjunction with research grants, SEAMOLEC Online Journal, “<https://journal.seamolec.org/index.php/journal>” has been launched to provide open access of scientific papers and selected research articles both in digital and printed format for public use (SEAMOLEC 2020)

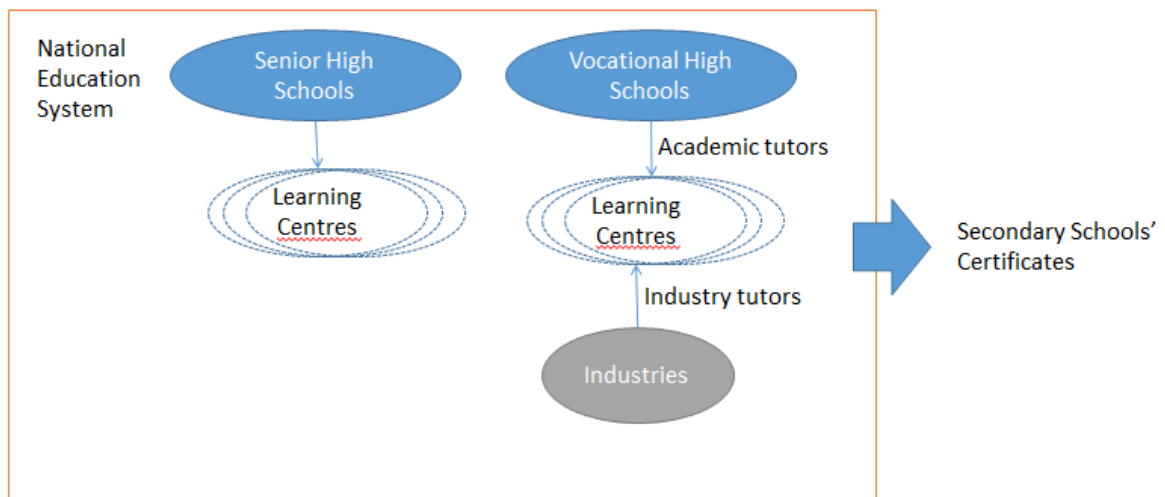


Workflow of Research Grant Program

Open and Distance Learning Model. Distance learning is a way of learning remotely to provide access to education while keeping the quality without being in regular face-to-face classroom setting. In the rapid development of new technology, distance learning is one of the most rapidly growing fields of education and its potential impacts on all education delivery systems. In order to meet the needs of the changing world, distance learning must be time flexible, reducing geographical barriers, competitive cost/value and learner centred in which it has been considerably demonstrated its ability to meet a wide range of learning needs and different types of learners. The distance learning system using ICT has become a significant

education innovation in the 21st century. (Allen 2016, Sukhothai Thammathirat 2019). To pursue its mission in promoting and supporting the use of ICT in education, one of SEAMOLEC efforts is to initiate open and distance learning model in Southeast Asia. The designed model expected to expand the access, quality, and equity for students to pursue their education regardless of their economic, geographical, time, social and cultural constraints. With the unique attributes of open and distance learning (ODL), SEMOLEC has come to develop this model annually. Every year challenges and needs together with trends of future technology in education are taken into account in model development process to provide appropriate support for people in need. The main goal is to provide access in education for ones who are unable to stay in regular learning services to complete and develop themselves regardless of classroom setting.

As one of outstanding efforts since 2017 SEAMOLEC has assisted West Java Province of Indonesia in improving enrollment rate of students of secondary education via open and distance learning. The distance learning programme has been designed with hybrid or blended mode with ICT-based ODL which the proportion of ICT component is ranging from 30-79 % while 30 % is face-to-face delivery. In hybrid mode, it allows students to study without leaving their works or ones with economic, geographical or physical constraints. Pursuing its mission to enhance number of enrolment rate of secondary school students and quality of workforce in the province, learning modules, guidelines, learning materials were developed. The tailored made ODL model in West Java Province has involved 492 schools and established 1257 learning centres to provide learning supports for students. The increasing number in enrollment rate of secondary school student has given significant proof of effort in unitizing ODL for human resource development in the area. Even though the programme is still in early stage of development with limitation of learning material and facilities, the Centre is hoping that the initiative will be continued with synergizing collaboration with involving stakeholders (SEAMOLEC 2019).



Scheme of Distance Learning Implementation in West Java Province

To further its benefits of ODL in Southeast Asia countries, SEAMOLEC took an initiative in utilizing distance learning through Common ASEAN Curriculum for Tourism (CATC) to support human resource development in region with vocational education using

lesson learned from West Java distance learning implementation. Considering ASEAN countries are in the era of free flow of skilled labor. Under the umbrella of the Mutual Recognition Arrangement (MRA), the Tourism sector is a most ready sector to face the ASEAN-MRA. Based on the result of preliminary study, tourism is also one of industrial sectors that highly contributed in GDP on most of Southeast Asia countries. This sector has positive growth and requires numbers of skilled workers. To answer this condition, distance learning can be conducted in several Southeast Asia countries by utilizing Common ASEAN Curriculum for Tourism (CATC) in collaboration with vocational schools/colleges and hospitality industries. In 2019 the first pilot of CATC online courses in Southeast Asia were introduced to pilot institutions in 6 countries; Cambodia, Lao PDR, Indonesia, Philippines, Thailand and Timor Leste.

FIND OUT THE POSSIBILITY OF CONDUCTING A DISTANCE LEARNING PROGRAM IN THE TOURISM SECTOR — BY IMPLEMENTING CATC AND

SEAMOLEC AS A SEAMEO REGIONAL CENTER THAT FOCUSES ON OPEN AND DISTANCE LEARNING CONDUCTED FEASIBILITY STUDY TO FIND OUT THE POSSIBILITY OF IMPLEMENTING ODL PROGRAM IN TOURISM SECTOR, ONE OF THE



*Feasibility Study
The Use of Application of Common ASEAN Tourism Curriculum (CATC) Toolboxes
For Distance Learning In Southeast Asia*

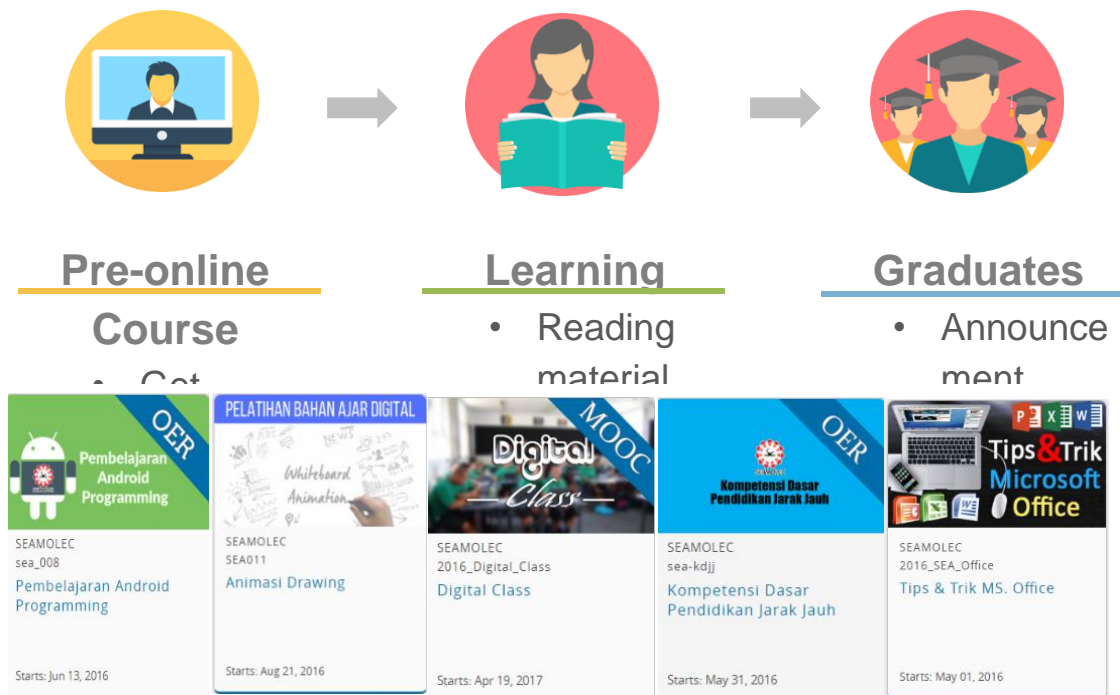
SEAMOLEC Training. Considering the Industrial Revolution 4.0 (IR 4.0) has brought various significant changes in human life. It has fundamentally changed the way people work and live and has a big influence on many aspects of daily living particularly in education sector. Today’s educator is obliged to make self-adaptation and certain changes to successfully utilize all the potential benefits brought by the IR 4.0 era. Among the adaptations and changes teachers must shift their mindset on their roles and the learning process. They also need to conduct adaptation programs, such as adjusting curriculum content with content that will prepare students with 21 century abilities, and also choose and apply various current learning models suitable for millennial generation students.

As the characteristic of IR 4.0 learning that is synonymous with the internet of things, icloud, big data, connectivity, and digitalization, it is highly important for teachers nowadays to integrate their learning and teaching activities with the latest information technology developments. They, for example, need to combine offline learning mode with online (blended

learning/hybrid learning) and make use of several online learning applications and social media platforms to enhance students' learning. In this context, teachers also need to maximize the use of sophisticated devices such as smartphones in the classroom for learning. In short, the integration of learning with the internet and/or network will greatly affect the effectiveness and acceleration of the achievement of learning outcomes in this digital era.

SEAMOLEC with 23 years of experience in developing ODL in Southeast Asia region

Activities



has been very

concerned in the effort to prepare professional teachers/lecturers with four competencies: professional competence, pedagogic competence, social competence, and personal competence. Various of ICT-based training programs have been carried out by SEAMOLEC in order to improve teacher/lecturer digital literacy and to address the competences skill of IR 4.0, such as Internet of Things (IoT), 3D Visualization, Augmented Reality, Virtual Reality, Massive Open Online Course (MOOC), etc. Currently, SEAMOLEC has also been developing Artificial Intelligence (AI) for education, shown in the international conference conducted by the Centre last year.

Consultancy Services in ODL and ICT for Education. To enhance its impact of programme implementation towards its mission in ODL and ICT literacy for public, the Centre is very keen on establishing stronger networking eco-system through partnership and synergizing with other related parties. As contribution to its partners, SEAMOLEC provides consultancy services related to the ODL system and its technology to regional partners from the level of ministries, universities, organizations and other SEAMEO Centres (SEAMOLEC 2019).

In addition, one of the current another partnership programmes in SEAMOLEC is South-East Asian Sales Competition (SEASAC). SEASAC is a three-year project funded by

the European Union (EU) under Erasmus+ Higher Education Capacity Building Programme. The main aim of the SEASAC programme is providing highly skilled Business-to-Business (B2B) sales professionals by strengthening the South-East Asian Universities' capability. Sales competition is one exciting interactive learning method that involves a simulated buyer/seller role-play which gives students opportunities to learn from business as well as opens the recruitment opportunities. Existing European knowledge and experiences will be shared and matched with South-East Asian sales cultures. The output of this programme will be a South-East Asian Sales Competition concept, consisting of International B2B Sales Course and South-East Asian Sales Competition Final event.

The partners involved in this consortium are; (1) Turku University of Applied Sciences, Finland, (2) University of Applied Sciences Wiener Neustadt, Austria, (3) Edinburgh Napier University, Scotland, (4) Haaga Helia University of Applied Sciences, Finland, (5) Mahasarakham University, Thailand, (6) Rangsit University, Thailand, (7) Binus University, Indonesia, (8) Universitas Putra Indonesia "YPTK" Padang, Indonesia, (9) Sebelas Maret University, Indonesia, (10) Parhayangan Catholic University, Indonesia, (11) State Polytechnic Batam, and (12) SEAMOLEC. In this program, SEAMOLEC is in charge as a regional dissemination partner. SEAMOLEC is facilitating the dissemination of their best practices through digital contents, web-based learning, and also webinars activities. Further information of this program may be accessed at <https://seasalescompetition.com/> (SEASAC 2020).

Moving Forward

The rapid changes in the world economy, technology, and digital society have transformed people's traditional ways of life at local, national and global levels. In this digital world, the changing demands of knowledge and skills acquisition continue to challenge formal education systems and call for alternative modes of learning. With the development of the Internet and multimedia technologies, open and distance learning is becoming a well-accepted and indispensable part of educational systems worldwide and there is greater awareness that ICT in education, such as online distance learning and Massive Open Online Courses (MOOCs), is important to ensure equitable access to quality education and lifelong learning opportunities for all. Nevertheless, there are also concerns about the accessibility, connectivity, quality, the gaps in ICT use, and recognition of qualifications earned through non-traditional modes of learning. In this context, digital distance education is an open educational system that can address such concerns and accelerate progress towards the achievement of the Education 2030 agenda known as Sustainable Development Goal 4 (SDG4) (Sukhothai Thammathirat 2019, I-Scoop 2020, Japan Cabinet Office 2020). SEAMOLEC's roles in the era of Industry 4.0 still continue with its effort and initiative to equip human resources in Southeast Asia region with knowledge and skills towards societal transformation in the coming future.

References:

Allen, M. W. (2016). Guide to e-learning: bujilding interactive, fun, and effective learning programs for any company New Jersey, Wiley

I-Scoop (2020). "From Industry 4.0 to Society 5.0: the big societal transformation plan of Japan." Retrieved 20 January, 2020, from <https://www.i-scoop.eu/industry-4-0/society-5-0/>.

Japan Cabinet Office (2020). "Science and Technology Policy, Council for Science, Technology and Innovation." Retrieved 15 January, 2020, from https://www8.cao.go.jp/cstp/english/society5_0/index.html.

SEAMOLEC (2019). SEAMOLEC ANNUAL REPORT 2019. Jakarta, SEAMEO SEAMOLEC.

SEAMOLEC (2020). "SEAMOLEC ONLINE JOURNAL." Retrieved 12 January, 2020, from <https://journal.seamolec.org/index.php/journal>.

SEASAC (2020). "SEASALES COMPETITION." Retrieved 16 January, 2020, from <https://seasalescompetition.com/>.

Sukhothai Thammathirat (2019). International Conference on Distance Learning. Research and Innovation for Digital Soceity, Thailand Sukhothai Thammathirat Open University.