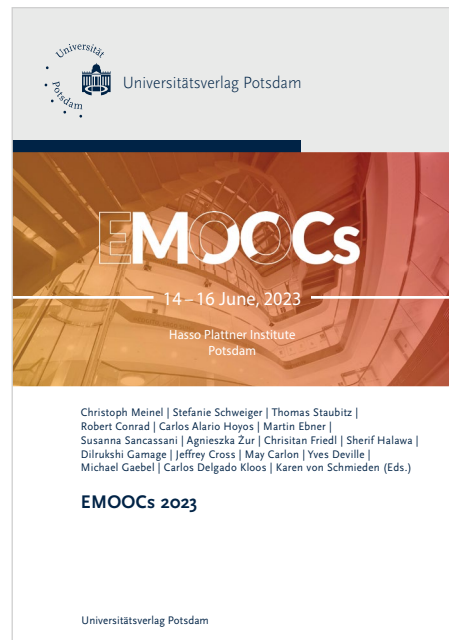# Article published in:

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Instructional Design for Work-Based Skill MOOCs

Challenges for Workforce Development in Thailand

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As Thailand moves towards becoming an innovation-driven economy, the need for human capital development has become crucial. Work-based skill MOOCs, offered on Thai MOOC, a national digital learning platform launched by Thailand Cyber University Project, ministry of Higher Education, Science, Research and Innovation, provide an effective way to overcome this challenge. This paper discusses the challenges faced in designing an instruction for work-based skill MOOCs that can serve as a foundation model for many more to come. The instructional design of work-based skill courses in Thai MOOC involves four simple steps, including course selection, learning from accredited providers, course requirements completion, and certification of acquired skills. The development of such courses is ongoing at the higher education level, vocational level, and pre-university level, which serve as a foundation model for many more work-based skill MOOC that will be offered on Thai MOOC soon. The instructional design of work-based skills courses should focus on the development of currently demanded professional competencies and skills, increasing the efficiency of work in the organization, creativity, and happiness in life that meets the human resources needs of industries in the 4.0 economy era in Thailand. This paper aims to present the challenges of designing instruction for work-based skill MOOCs and suggests effective ways to design instruction to enhance workforce development in Thailand.

1 Introduction

As Thailand evolves into an innovation-driven economy, the incorporation of work-oriented skill courses is catalyzing transformative changes. For instance, the Elderly

Care MOOC and a range of other skill-based MOOCs are tackling inherent educational challenges, thereby steering Thailand towards an enlightened future. The escalating popularity of MOOCs stems from their flexibility and accessibility, facilitated by both foreign platforms and indigenous university platforms, notwithstanding the issues of cost, accessibility, and language barrier. Thai MOOC, a government-led initiative through the Thailand Cyber University Project under the Ministry of Higher Education Science Research and Innovation, stands out for its distinctiveness. Offering a plethora of courses in the Thai language and ensuring cost-free education for all, Thai MOOC has become a beacon of strength, boasting a robust enrollment of 1,641,672 students as of 25 April 2023. (https://thaicyberu.go.th) With the demographic shift towards an aging society, the demand for elderly caregivers is on the rise. This need is recognized by the Thailand Cyber University (TCU), which is fostering an elderly care workforce and ensuring accessible knowledge in this realm via the open system of Thai MOOC [6, 3].

Thai MOOC, developed by the Thailand Cyber University Project (TCU) under the Ministry of Higher Education, Science, Research, and Innovation (MHESI), has launched a pilot project in academic cooperation with Sukhothai Thammathirat Open University, the Institute of Community Colleges, and Thailand Professional Qualification Institute. Together, they create ability courses while Thai MOOC serves as a coordinator and supports relationships with other MOOCs in developing quality courses by combining knowledge from similar courses from partner organizations [1].

The 420-hour Advanced Caregiver Curriculum for the Elderly was meticulously crafted with the aim of universal accessibility, delivering flexibility in time and location, and catering to the unique needs of the elderly. The curriculum is bifurcated into two components: The first part, a Massive Open Online Course (MOOC), comprises 104 hours of theoretical instruction and 96 hours of practical exercises, aggregating to 200 hours spread across seven subjects. The second part necessitates 110 hours of on-site practice in a healthcare facility and an equal number of hours in community service, summing up to 220 hours. The practical training is tiered into three levels: basic, intermediate, and advanced, encompassed in three courses titled Elderly Care I, II, and III.

The curriculum is thus designed to improve elderly care, to empower individuals of all ages to explore learning opportunities, enhance employability, foster lifelong learning, and generate career avenues. Its shared learning objectives are geared towards equipping learners with the ability to identify, evaluate, and manage age-associated diseases. This innovative curriculum addresses societal shifts necessitating long-term healthcare for the elderly, aligning with the World Health Organization's (WHO) Decade of Healthy Aging (2020–2030). At the national level, it influences policies, plans, and various departments, such as the 2nd National Plan on the Elderly (2002–2021), The 20-year Strategic Plan (2018–2037), and initiatives

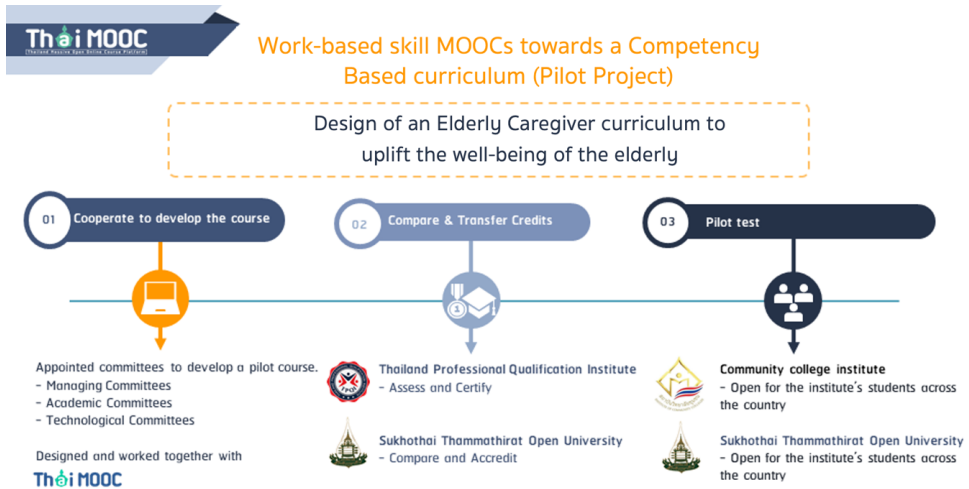for elderly physical and mental well-being by The Ministry of Social Development and Human Security [8].

Figure 1: The 420-hour Advanced Caregiver Curriculum for the Elderly https://thaicyberu.go.th

Thai MOOC is also working on an open system for grade transferring of online courses to accord with international standards and expand opportunities for people to access higher education, creating a broader learning society and promoting lifelong learning [2]. By mid-2023, Thai MOOC will offer even more work-based courses, utilizing the experience gained from offering the elderly care program as a foundation for further developments [5].

2 Work-based skill MOOC

Work-based skill courses offered via Thai MOOC are in line with the objectives of Thailand's 20-year national strategy, designed to foster proficient human resources, cater to the nation's requirements, and enhance global competitiveness. This vision necessitates significant investments in human capital, equipping them with knowledge and skills that align with professional and personal life demands. This would facilitate the development of expertise in their chosen fields and meet the
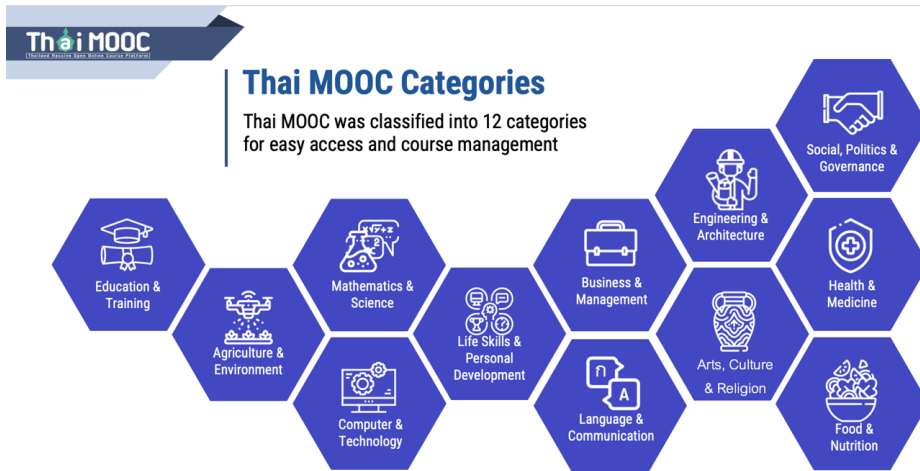
Figure 2: Thai MOOC Categories

country's imperative for global competitiveness [4]. In the context of Thailand, Thai MOOC plays a crucial role, as it collaborates with over 120 educational institutions, including domestic and international public and private organizations. It has made significant strides by offering more than 500 online courses, with a special emphasis on work-based skill MOOCs, thereby extending its services to a broad audience [9]. This collaborative effort ensures the sustainability of both the courses and the platform. The work-based skill courses are a product of the wealth of experience and knowledge amassed by Thai MOOC and its partners. They also serve as foundational elements for the development of additional work-based skill courses in the future, facilitating the continued growth of Thai MOOC and the Thai education sector at large.

Apart from the aforementioned pilot project, three new developments of similar courses at higher education, vocational, and pre-university levels are underway. Leveraging two of the national strategies, namely developing Thai people of all ages in all dimensions and developing high-performance human resources [7], these work-based skill MOOCs are being crafted. These projects lay the foundation for an array of future work-based skill MOOC slated to be offered on Thai MOOC. These developments include:

1. Development of permanent personnel working in Seafarers with King Mongkut's University of Technology Thonburi (KMUTT) MOOCs.

2. Development of vocational workforce in Digital Business with Office of Vocational Education Commission (OVEC) MOOCs.

3. Development of workforces in Modern Trade Business Management with Panyapiwat Institute of Management (PIM) MOOCs.

These projects aim to equip learners with the necessary knowledge, skills, and abilities to excel in their respective fields, fostering a competitive workforce that meets the country's needs and contributes to global competitiveness. As the need for human resources continues to grow, individuals must possess complex problem-solving abilities, analytical thinking, creativity, effective communication, and collaboration skills. In the age of data, the ability to analyze data is of critical importance. Thai MOOC's work-based skills courses are appropriate tools for developing these human resources, providing Thai people with convenient and equal access to education [10].
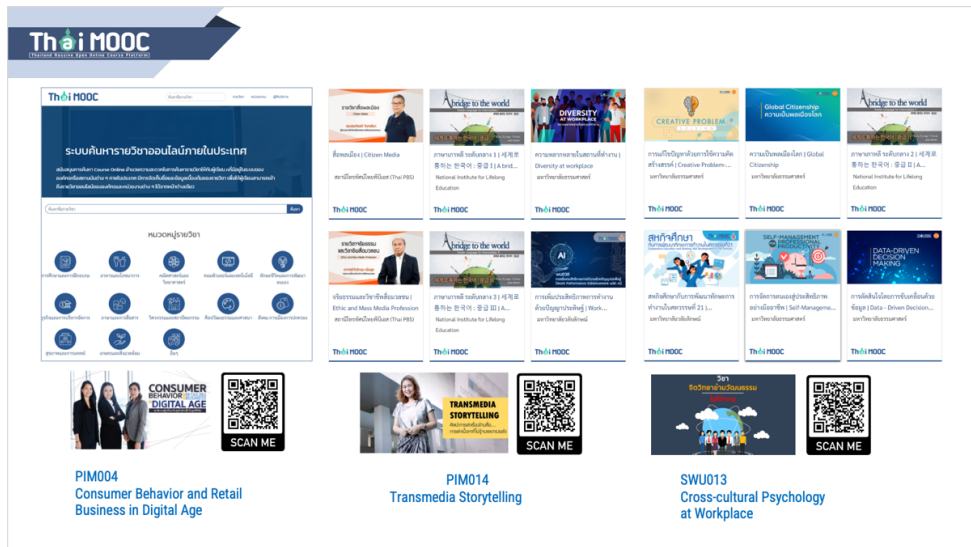

Figure 3: Courses for Upskills and Reskills

As Thailand faces various challenges in its transition towards an innovation-driven economy, the introduction of work-based skill courses, including the Elderly Care MOOC and other work-based MOOCs, is a significant step towards addressing these challenges and shaping a brighter future for its citizens. Thai

MOOC and work-based skills courses provide an effective way to overcome educational hurdles and ensure that the country's education system leads the way for all Thai citizens, fostering lifelong learning and promoting a highly skilled workforce capable of competing on a global scale.

3 Conclusion

In conclusion, Thai MOOC has made significant strides in expanding its services and promoting lifelong learning to enhance human development in Thailand. This progress aligns with the goals of the 13th National Economic and Social Development Plan, addressing the challenges faced by the country as it transitions to an innovation-driven economy. By introducing work-based skill courses such as the Elderly Caregiven MOOC and other similar programs, an effective solution emerges to overcome educational barriers, ensuring equitable access to education for all Thai citizens.

These courses not only focus on developing professional competencies and skills currently in demand but also aim to enhance work efficiency, promote creativity, and foster a happy living. The collaboration between various institutions, such as the MHESI, ICC, TPQI, OVEC, and MOE, has strengthened lifelong learning in the country, enabling Thai MOOC to serve as the digital learning platform for achieving these goals.

As Thailand continues to invest in human resources and provide individuals with the knowledge and skills necessary for success in their professional fields, the country is well-positioned to build global competitiveness and foster a sustainable learning society. Thai MOOC, with its expanding range of work-based skills courses and partnerships, will continue to play a pivotal role in driving innovation, progress, and lifelong learning for Thai citizens in the years to come.

Acknowledgment

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