

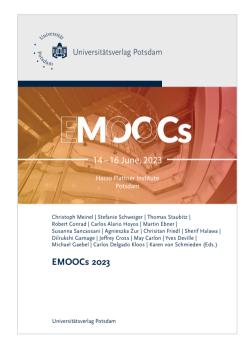
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Thai MOOC Academy

Extending the Platform Towards a Sandbox for the National Credit Bank System in Thailand

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Thai MOOC Academy is a national digital learning platform that has been serving as a mechanism for promoting lifelong learning in Thailand since 2017. It has recently undergone significant improvements and upgrades, including the implementation of a credit bank system and a learner's eportfolio system interconnected with the platform. Thai MOOC Academy is introducing a national credit bank system for accreditation and management, which allows for the transfer of expected learning outcomes and educational qualifications between formal education, non-formal education, and informal education. The credit bank system has five distinct features, including issuing forgery-prevented certificates, recording learning results, transferring external credits within the same wallet, accumulating learning results, and creating a QR code for verification purposes. The paper discusses the features and future potential of Thai MOOC Academy, as it is extended towards a sandbox for the national credit bank system in Thailand.

1 Introduction

Thailand has made significant progress in the development of its educational system over the past few decades. However, there is still a need to provide individuals with access to lifelong learning opportunities, which is essential for the development of a knowledge-based society [5]. Thai MOOC Academy was launched in 2017 with the aim of promoting lifelong learning by providing accessible and affordable learning opportunities for individuals across the country.

Thai MOOC Academy is a national digital learning platform that has been promoting lifelong learning in Thailand since its launch in 2017. Over the past five

years, it has grown significantly, with over 1.4 million members and more than 530 courses available as of February 24, 2023 (https://thaicyberu.go.th). The platform has recently undergone significant improvements and upgrades, including the implementation of a credit bank system and a learner's e-portfolio system interconnected with the platform. The credit bank system allows for the transfer of expected learning outcomes and educational qualifications between formal education, non-formal education, and informal education. This paper elucidates the characteristics and prospective advancements of the Thai MOOC Academy as it expands its scope to encompass a sandbox platform for the national credit bank system in Thailand.

The National Credit Bank System is an instrument for administering and validating lifelong learning in Thailand. Recently, [3] promulgated new regulations and procedures concerning credit banking, credit transfers, and credit accumulation in higher education. The Thai MOOC Academy has implemented a credit bank system characterized by six unique attributes, including:

- Provision of forgery-resistant certificates in PDF format, with learner, course, and learning outcome details, augmented by the digital signature of the certifying agency. The document's forgery resistance aligns with the standards employed for university digital transcripts.
- 2. Logging of learning outcomes.
- 3. Aggregation of learning outcomes.
- 4. Capability to transfer external credits within a single wallet.
- 5. The system's capacity to pull data from learning certificates without needing to access information on Thai MOOC Academy.
- 6. Generation of QR codes to validate accuracy and streamline access to basic information [9, 6].

The credit bank system addresses the necessity for a mechanism that recognizes learning outcomes attained via non-formal and informal learning channels, such as MOOCs. It enables credit transfers between diverse learning types, encompassing formal, non-formal, and informal education [3]. Consequently, learners can amass credits from various sources and apply them towards securing a degree or certification. The learning process and credit bank of Thai MOOC Academy are presented in Figure 1.

Thai MOOC Academy Features and Future Potential Thai MOOC Academy is a national digital learning platform that has implemented the national credit bank system for accreditation and management. The platform also offers an e-portfolio system interconnected with the credit bank system, which enables learners to

Thai MOOC Academy Learning Process and Credit Bank of Thai MOOC Academy MHESI central credit bank Learner University Registration /Identity verification Report using ID MOOC courses Credit Bank System Thai MOOC Academy Digital Certificate Level 1 "Cert of Completion" Digital Certificate Level 2 Study in "Cert of Achievement" Thai MOOC Academy ♣ Verified Citizen ID Cert Lv 1 platform Course B Testing centres Identity | verification | Authorized testing centres (university-based, i.e. open

Figure 1: The learning process and credit bank of Thai MOOC Academy [6]

university, community colleges)

record their learning outcomes and achievements [9, 6]. This system provides learners with a record of their achievements that they can use to demonstrate their skills and competencies to potential employers. Thai MOOC Academy is an effective tool for promoting lifelong learning in Thailand. It has grown significantly over the past five years, with over 1.4 million members and more than 530 courses available. The platform has been recognized by various organizations for continuing education credit, including the Pharmacy Council of Thailand and Thailand Nursing and Midwifery Council. The Office of Vocational Education Commission (OVEC) under the Ministry of Education has also signed a memorandum of understanding to utilize Thai MOOC as a digital learning platform for fostering quality and enhancement of vocational education in the country.

In addition, Thai MOOC Academy has been extended towards a sandbox for the national credit bank system in Thailand. This means that the platform will continue to play an important role in accrediting and managing lifelong learning in the country. The credit bank system implemented by Thai MOOC Academy has the potential to promote lifelong learning by allowing learners to accumulate credits from different sources and use them towards obtaining a degree or certification. In addition, the credit bank system has the potential to reduce the cost and time needed to obtain a degree or certification, as learners can use credits from non-

formal and informal learning to fulfill some of the requirements for formal degrees or certifications [9, 6, 8].

The implementation of the national credit bank system on Thai MOOC Academy also has the potential to benefit learners from disadvantaged backgrounds who may not have access to formal education. By recognizing non-formal and informal learning, the credit bank system can provide opportunities for these learners to obtain recognition for their skills and competencies, and ultimately improve their job prospects [2, 1]. The national credit bank system also aligns with the goals of the 13th National Economic and Social Development Plan, which aims to transform Thailand into a progressive and sustainable society by promoting human development and innovation [4]. By providing opportunities for lifelong learning and recognition of skills and competencies, the credit bank system can contribute to the achievement of these goals. Credit accumulation in the Thai MOOC Academy's credit bank system is shown in Figure 2.

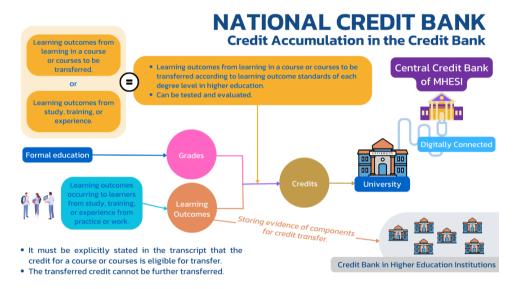


Figure 2: Thai MOOC Academy: Credit accumulation in the in the credit bank [7]

2 Future work

Potential future advancements related to the evolution of the ThaiMOOC Academy as a testbed for the national credit bank system in Thailand can be identified across several domains. Firstly, sustaining collaboration among academic institutions and organizations is essential to augment the offerings of the ThaiMOOC Academy and guarantee the quality of the provided courses and programs. Secondly, it will be crucial to supervise the implementation and efficiency of the credit bank and e-portfolio systems. This scrutiny will facilitate the identification of improvement areas and ensure the systems satisfy the requirements of learners and educational establishments. Thirdly, an ongoing need exists for research evaluating the ThaiMOOC Academy's impact on lifelong learning and strategies to foster platform usage among a diverse range of learners. In addition, broadening partnerships with more educational institutions, both nationally and internationally, could enrich the variety of the platform's course offerings. The Thai MOOC, developed based on Open Edx, an open-source MOOC platform, allows for effortless course exchange with other MOOC providers. In terms of compatibility, it enables straightforward transfer of Thai MOOC courses to other platforms and vice versa. A significant challenge for Thai MOOC, however, lies in overcoming the language barrier. To this end, Thai MOOC has been investigating the utilization of AI technology for content translation into Thai. This could facilitate precise translation of MOOC courses, and eventually, enhance the level and volume of cooperation between MOOC platforms. This could potentially lead to a significant increase in exchanged courses, thus paving the way for the effective implementation of the credit bank and e-portfolio systems in the imminent future. Operation of Thai MOOC Academy is shown in Figure 3.

3 Conclusion

In conclusion, Thai MOOC Academy has been a significant contributor to promoting lifelong learning in Thailand since its inception in 2017. The platform has grown significantly, with over 1.4 million members and more than 530 courses available as of February 24, 2023. Its recent implementation of the national credit bank system has enhanced its potential even further. The credit bank system offers learners greater flexibility and accessibility in their education journey, as well as provides opportunities for recognition of prior learning and non-traditional forms of education. The credit bank system's unique features, including forgery-prevented certificates, learning result recording, credit transfer, and QR code verification, have made it an effective mechanism for accrediting and managing lifelong learn-

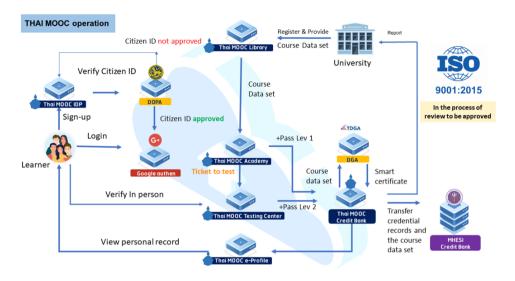


Figure 3: Operation of Thai MOOC Academy [7]

ing. However, it is essential to continue expanding and developing this system to fully realize its potential.

With ongoing support from both public and private sectors, Thai MOOC Academy has the potential to further promote lifelong learning and enhance human development in Thailand. The implementation of the credit bank system in Thai MOOC Academy aligns with the goals of the 13th National Economic and Social Development Plan, which aims to promote human development and innovation in Thailand. The system's potential to reduce the cost and time needed to obtain a degree or certification, provide opportunities for learners from disadvantaged backgrounds, and promote lifelong learning makes it an essential part of Thailand's education system. As such, the continued development and expansion of Thai MOOC Academy and its national credit bank system are necessary for promoting lifelong learning and enhancing human development in Thailand.

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