

***Development of Massive Open Online Course for Sports Tourism Course of Undergraduate Students in Physical Education Program***

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**Abstract**

The current study aimed at 1) developing the Massive Open Online Course (MOOC) for sports tourism course provided to undergraduate students in Physical Education program, and 2) investigating learning outcomes of the undergraduate students in Physical Education program after learning with MOOC for sports tourism course. The samples consisted of 30 undergraduates studying in Physical Education program at the faculty of Education, Phuket Rajabhat University. They were studying in an academic year 2023 and enrolling in the online sport tourism course provided on the MOOC. The research instruments comprised of the MOOC for sports tourism course for undergraduate students in Physical Education program and a learning achievement test of sports tourism course for undergraduate students in Physical Education program. The data were analyzed using mean ( $\bar{x}$ ), standard deviation (S.D), and t-test at .05 level. The results have revealed that the MOOC for sports tourism course provided to the undergraduate students in Physical Education program was appropriate to use at the highest level and 2) the average score of students' learning achievement after studying with the MOOC was significantly higher at the value of .05 level.

Keywords: Massive Open Online Course, Sports Tourism, Physical Education Program

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## Introduction

A massive open online course (MOOC) is an evolved version of distance and online education, both of which have been around in various forms for decades. Correspondence education dates back as far as the late nineteenth century, while computers and the Internet have been used in education since their earliest stages. As early as 1972, Athabasca University in Alberta, Canada was delivering distance education using print, television, and eventually online content to teach courses to national and international students. MOOCs promote independent learning by exploring a variety of learning possibilities in the digitally connected world. They enable access to a collective space where knowledge is constructed in a participatory, interactive, contextualized, and creative framework, made possible by free-of-charge, web-based, open-access online courses (Kady & Vadeboncoeur, 2022).

The continuous demand of the 21st-century learners opens the door for Massive Open Online Course in different universities abroad. The University of Melbourne's Graduate School of Education (MGSE) has launched a MOOC on how to give school children the skills to survive in a world of ever-changing technology. In Dublin, the Minister and Education and Skills launched a new Massive Open Online Course called "21st Century Learning Design" which will be used by teachers across the globe to help support the objective of bringing more technological skills into the classroom. It became one of the newest ideas of education designed for extended learning and career development. MOOC is an interactive step-by-step course aimed at reaching an unlimited number of participants worldwide to create a community of lifelong learners. It allows people from different regions to access and study courses at their preferred universities (Angeles, Creus, & Antonio, 2016). It is also a means of empowering the learning community and exchanging culture because the learners are capable of interacting with other people using different platforms like edX, moodle, course sites by blackboard, udemy, versal and etc.

For this research, the researcher has opted to utilize moodle for developing the MOOC for sports tourism course provided to undergraduate students in Physical Education program to consider with details as follows:

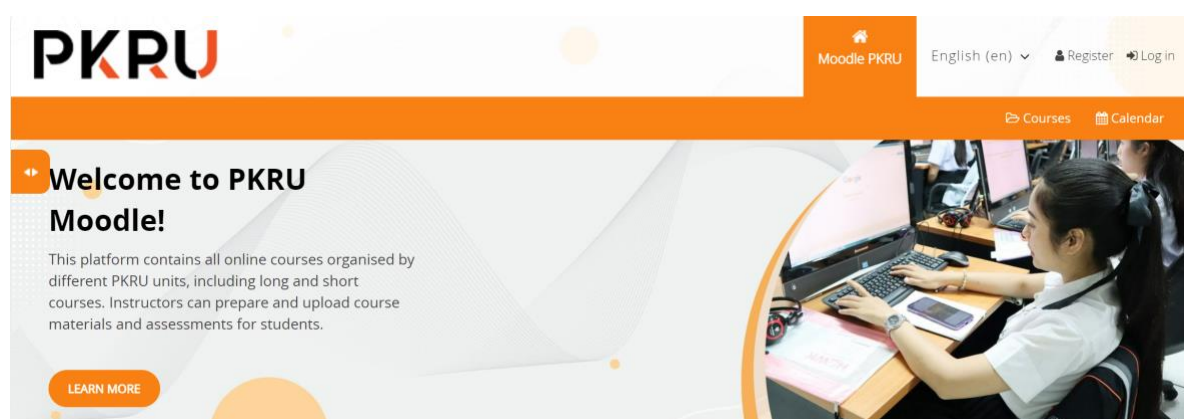


Figure 1: MOOC PKRU

In 2023, global economic slowdown, high product prices, increasing interest rates, and the tendency of robust performance of the baht are all risk factors for both global and Thai economy. Meanwhile, the Thai economy relies heavily on tourism and foreign investment. There is an estimation that the Thai economy this year will grow slightly higher than that of last year. Thailand Development Research Institute (TDRI) had estimated that the Thai

economy in the past years may have expanded by 3.2%, whereas this year it is projected to grow by 3.5%, slightly higher than last year. The main factor is the highly like recovery of tourism. Last year there were about 11 million tourists, while this year, when combined with Chinese tourists, it could reach 25 million. Therefore, the tourism revenue will definitely increase, which will propel the growth of the Thai economy (Phuket Provincial Office, 2023; The Stock Exchange of Thailand, 2023).

Regarding the intensive promotion and stimulation of tourism industry with an attempt to revitalize the economy of tourism, the overall goal is to reach at least 80 percent of the year 2019 income. The Tourism Authority of Thailand has continuously promoted the Thai Tourism Year 2023 for domestic markets and Visit Thailand Year 2023: Amazing New Chapters for foreign markets since 2022. This is significant driving mechanism to ensure that Thai tourism industry will recover both income and qualitative changes, moving towards being high value and sustainable tourism. In terms of income from tourism, Phuket has the second highest income in the country after Bangkok. The objective is to make Phuket province the hub of international standards for sustainable development of tourism, education, and innovation in service providing. Based on Phuket's tourism statistics, the number of tourists in 2022 was 38.61% (5,628,483 tourists in 2022, compared to 14,576,466 in 2019), while tourism income was 43.71% (193,636.78 million baht in 2022, compared to 442,980.67 million baht in 2019). In the first quarter of 2023 (January-March), the number of tourists was 57.24% (2,781,529 people, compared to 4,859,388 people in 2019), whereas for the income from tourism was 58.18% (88,108.08 million baht in 2023, compared to 151,429.37 million baht in 2019) (Ministry of Tourism and Sports, 2023; Phuket Provincial Office, 2023).

Organizing sports activities to promote tourism in Phuket (Phuket Sports City and Phuket Sand Box) in 2021 and 2022 could boost up Phuket economy to 2,170,062,850 baht. In 2021, there were 26 sport events, which were divided into 16 domestic events and 10 international events. The total number of competitors were 42,650; among these 28,050 were Thais, and 14,600 were foreigners. The total economic value that stemmed from these events was 547,990,750 baht. In 2022, there were 26 sport events, which comprised of 13 domestic events and 13 International events. the total participants were 116,000; among these 86,900 were Thais and 29,100 were foreigners. The total economic value earned from these events was 1,622,072,100 baht (Phuket Provincial Office, 2023; TAT Academy, 2023).

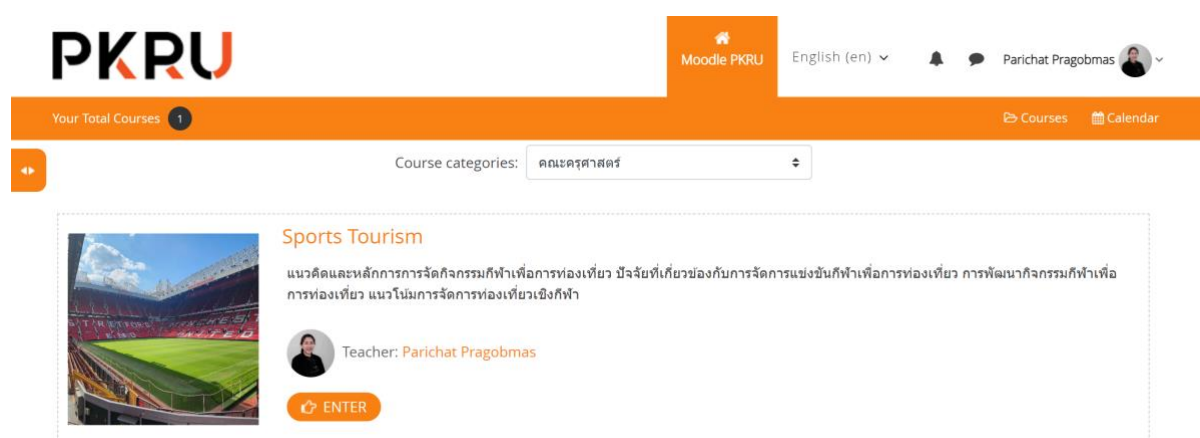


Figure 2: Sports tourism course

The substantial advancements in information and communication technology, educational institutions worldwide have developed online learning systems by applying the internet to teaching and learning. This approach aims to cultivate systematic thinking skills, analytical thinking, and creative thinking among learners. Online classrooms help expand the scope of traditional classrooms to reach diverse groups of learners through a system that facilitates various processes, including course registration, learner data management, content management, and learner assessment. Learners can study anytime and anywhere, which motivates them to engage in lifelong learning.

Consequently, MOOC is an open education innovation that plays a crucial role in developing online teaching and learning methods. It provides opportunities for interested learners from around the world to enroll in courses they are passionate about without any cost. The development of MOOC responds to the ideology of open education, stemming from the concept that knowledge should be shared and learners' desire to learn should be fulfilled without limitations. This fosters a learning society, a society that shares knowledge, leading to lifelong learning for the global community in the 21st century.

### **Objectives of Study**

1. To study developing the MOOC for sports tourism course provided to undergraduate students in Physical Education program.
2. To study investigating learning outcomes of the undergraduate students in Physical Education program after learning with MOOC for sports tourism course.

### **Methodology**

#### ***Section 1: Developing the MOOC for Sports Tourism Course Provided to Undergraduate Students in Physical Education Program***

To assess the suitability of the MOOC for the sports tourism course provided to undergraduate students in the Physical Education program prior to its implementation, an evaluation process was conducted by subject matter experts, divided into two distinct groups. Group 1: Learning Content Evaluation, this group consisted of three experts tasked with evaluating the appropriateness of the learning content. The experts were required to possess extensive knowledge and expertise in sports tourism or related disciplines, as well as a minimum academic qualification of a master's degree. Group 2: Online Course Evaluation, this group comprised three experts responsible for evaluating the appropriateness of the online course delivery. The experts were required to have comprehensive knowledge and expertise in information technology or relevant fields, and a minimum academic qualification of a master's degree.

The evaluation of the online course's appropriateness was conducted using a 5-point Likert scale, with the following rating system: 5 - highest, 4 - high, 3 - moderate, 2 - low, 1 - least. The interpretation of the mean appropriateness scores was as follows: mean score  $\geq 4.20$ : highest, mean score between 3.40 - 4.19: high, mean score between 2.60 - 3.39: moderate, mean score between 1.80 - 2.59: low, mean score  $< 1.80$ : least.

## ***Section 2: Investigating Learning Outcomes of the Undergraduate Students in Physical Education Program After Learning With MOOC for Sports Tourism Course***

The samples consisted of 30 undergraduates studying in Physical Education program at the faculty of Education, Phuket Rajabhat University. They were studying in an academic year 2023 and enrolling in the online sport tourism course provided on the MOOC. The research instruments comprised of the MOOC for sports tourism course for undergraduate students in Physical Education program and a learning achievement test of sports tourism course for undergraduate students in Physical Education program. The data were analyzed using mean ( $\bar{x}$ ), standard deviation (S.D), and t-test at .05 level.

### **Conclusion**

This research presented the findings in two sections: 1) developing the MOOC for sports tourism course provided to undergraduate students in Physical Education program, and 2) investigating learning outcomes of the undergraduate students in Physical Education program after learning with MOOC for sports tourism course. Detail as follows:

### ***Section 1: Developing the MOOC for Sports Tourism Course Provided to Undergraduate Students in Physical Education Program***

Table 1: Learning content and online course evaluation

	Mean	Level
<b>Learning Content Evaluation</b>		
1 There was a clear statement of objectives	4.67	highest
2 The learning objectives were appropriate and relevant to the content within the lessons	4.33	highest
3 The language used was accurate, appropriate, and conveyed meaning clearly	4.33	highest
4 The lessons had an appropriate level of difficulty and content volume for the learners	4.67	highest
5 The content was accurate, and there was clarity in explaining the subject matter	4.33	highest
6 The content was interesting and engaging, encouraging learners to follow along and learn continuously	4.33	highest
7 The appropriateness of images in relation to the content	4.67	highest
8 The sequence of presenting the content was appropriate	4.33	highest
Overall Mean	4.46	highest
<b>Online Course Evaluation</b>		
1 The format/design of the lessons stimulated interest	4.67	highest
2 The layout and arrangement of elements was appropriate and visually appealing	4.33	highest
3 The continuity in content presentation within the lessons	4.33	highest
4 The fonts used were appropriate and clear	4.33	highest
5 The appropriateness of the size and color of the fonts used	4.00	high
6 The appropriateness of the colors in graphic images	4.33	highest
7 The consistency between images and captions	4.67	highest
8 The sounds and music used to accompany lessons	4.00	high
Overall Mean	4.33	highest

The researcher developed the MOOC for sports tourism course provided to undergraduate students in Physical Education program, consisting of the following components: course content, learning media and resources, end-of-chapter exercises and learning assessment. The results have revealed that the MOOC for sports tourism course provided to the undergraduate students in Physical Education program was appropriate to use at the highest level.

### ***Section 2: Investigating Learning Outcomes of the Undergraduate Students in Physical Education Program After Learning With MOOC for Sports Tourism Course***

The average score of students' learning achievement after studying with the MOOC was significantly higher at the value of .05 level.

Table 2: Learning achievement

	Pre-Test		Post-Test		t	p
	Mean	SD	Mean	SD		
Learning achievement	27.50	2.65	51.17	2.26	33.27	0.00*

The observed improvement in learning outcomes can be ascribed to the inherent self-directed nature of online education. In this paradigm, learners are empowered to select and engage with individual modules or units that align with their personal interests and educational requirements. The accessibility of online lessons is not constrained by temporal limitations, granting learners the flexibility to access the content at their convenience and without restrictions on the frequency of their engagement.

Moreover, the integration of assessments and evaluations is a crucial component in monitoring the learners' progress throughout their educational journey. Prior to embarking on the course, the learners' baseline knowledge is gauged to establish a foundation for their learning trajectory. As they navigate through each lesson within the curriculum, strategically placed end-of-chapter quizzes and comprehensive examinations serve as valuable tools for learners to reinforce their understanding of the material and self-assess their mastery of the subject matter. This meticulous approach to learning ensures that the educational process is both efficient and effective, maximizing the learners' potential for academic growth and success.

A key suggestion in this research is that the content in online lessons must be connected to current teaching and learning practices. The developed online lessons, particularly those based on electronic databases or research support tools introduced in this section, may not be usable in another period because teaching and learning methods change with the times. Therefore, it is advisable to select electronic databases or research support tools that are likely to remain relevant in the future. Moreover, the content should be designed in a format that emphasizes the learners' ability to apply it in conjunction with other databases or research support tools.

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