

教育部教學實踐研究計畫成果報告

Project Report for MOE Teaching Practice Research Program

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(計畫名稱：探討如何強化 EMI 與 MOOCs 主動學習能力-以大學航運課程為例)

(配合課程名稱：海運規劃與管理)

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計畫名稱：探討如何強化 EMI 與 MOOCs 主動學習能力-以大學航運課程為例

一. 報告內文(Content)

1. 研究動機與目的(Research Motive and Purpose)

In recent years, English Medium Instruction (EMI) and Massive Open Online Course (MOOC) have increasingly become important and popular in many non-English speaking countries (e.g. Taiwan) since they can strengthen students' competitiveness through introducing innovative teaching content in the learning environment (Galloway and Ruegg, 2020). Currently, EMI and MOOCs courses have faced many teaching barriers in the classroom since learners' backgrounds are quite different, and this can impact on their learning motivation and performance (Pan and Block, 2011; Belyaeva, 2018). From the perspective of teachers, lots of time is required to prepare the teaching materials when compared to traditional teaching course content. Concomitantly, students must spend more time to pre-review the material and understand these English-based course contents (including adapting to their teachers' English abilities).

However, these EMI and MOOCs teaching techniques and activities have remained in the beginning stage in most Taiwanese universities, arguably since most teachers and students do not fully understand how to adopt and to learn through these English based courses. Another reason that EMI-based teaching may not be popular is that some teachers also worry students might provide negative feedback and affect teachers' teaching performance since students might not fully understand the teaching content due to their poor English abilities (Tseng et al., 2018; Tseng, 2020; Tseng et al., 2020). In order to explore and enhance students' effective learning abilities in this context, using a Shipping and Planning Management course as a case in Feng Chia University, this project describes and discusses the introduction of EMI and MOOCs based teaching in the class in order to enrich teaching content and develop students' active learning abilities and provide potential solutions to reduce implementation barriers.

2. 文獻探討(Literature Review)

2.1 EMI related studies

In non-English speaking countries, it is generally accepted that English Medium Instruction (EMI) has now become mainstream within in higher education institutions (Lin and Morrison, 2010; Dafouz and Camacho-Miñano, 2016; Hendriks et al., 2018).

Although some countries may have abandoned the policy of English Medium Instruction, the majority of education systems in the world are moving towards introducing EMI (Tseng et al., 2020). Critical to the success of EMI is ensuring it is as effective in delivering subject content to students as in their native language, and also ensuring the availability of sufficiently qualified teachers to deliver subjects in English. Indeed, in the case of Malaysia, the impact on attainment and the lack of adequate numbers of teachers to deliver EMI were stated as being the main reasons why it was abandoned. In Taiwan, Chung and Lo (2017) investigate the practice the EMI in the field of transportation and provide key performance indicators.

In turn, critical to ensuring the effectiveness of EMI is student success, and integral to student success is the required motivation on their part to succeed and to feel the EMI teaching is effective, so that they themselves are able to do well in their subject studies in the medium of the English language. Whilst such motivation is needed in lecturers, it is also essential that students have motivation (Ball & Lindsay, 2012) for them to succeed in any studies related to EMI. Although on the one hand this might appear to be common sense, a number of studies illustrate the importance of motivation in success in a number of contexts ranging from community college success (Martin, Galentino & Townsend, 2014) to music (Asmus Jr, 1986), English language learning (Dornyei & Ushioda, 2009) and, specifically, EMI (Doiz, Lasagabaster & Sierra, 2012).

The subject area of shipping and maritime education is one where English is crucial, and traditional methods and approaches to its teaching have been questioned (Shen & Wang, 2011). For students who go on to work in the shipping industry, it is essential that they have a strong command of English (Pallis & Ng, 2011) should they wish to become seafarers, staff in shipping companies, shipping forwarders, shipping agents, ship-brokers, or to work for port authorities. English is an indispensable communication tool in the maritime industry and international trade (Shen & Wang, 2011). Many international conventions and regulation rules drafted by the International Maritime Organization (IMO) and many trade documents are written in English. To be a professional maritime management expert, a well-grounded English level in education training is necessary regarding listening, speaking, reading and writing. Indeed, English is the international language of the shipping industry, and it is thus relatively straightforward to see why EMI should be so appealing to universities in the context of education on shipping and

maritime courses. In addition to the appeal of EMI in terms of neoliberal policies (Piller & Cho, 2013) and attempts to generate income, it is arguable that EMI directly appeals to universities running shipping and maritime courses, and to students who are taking such courses given the prominence of English in the shipping industry.

2.2 MOOCs related studies

MOOCs have, since their creation in 2008 (Sanchez-Gordon and Lujan-Mora, 2014), been hailed as the next revolution in education. They allow anyone, anywhere, to access study courses for free and their potential for delivering learning and subject content is immense. Despite this potential, however, research into MOOCs has not been uncritical, with some finding that “the individuals the MOOCs revolution is supposed to help the most – those without access to higher education in developing countries – are underrepresented among the early adopters” (Christensen et al., 2013). Regardless of such critical research, it is nevertheless the case that what MOOCs do provide is more access to online content for anyone with the physical means to do so in the form of having a computer with internet access, and having the time and motivation to do so.

One characteristic of MOOCs, perhaps because they are free to access, or because people are not committed to completing them when they start, is that many who sign up do not complete the course. Indeed, the very high dropout rates on MOOCs are attributed to “barriers to learning” (Kennedy, 2014, p.1). Yet, when these barriers are described, they are described as being ones of making the MOOC model self-sustainable in terms of revenue, of providing suitable credentials or accreditation, of authenticating students and of providing an experience and perceived value for students taking the MOOCs (Hill, 2012).

In addition, and as noted above, MOOCs are invariably hosted on a platform that uses English, and this can also represent a potential barrier to many for whom English is not their native language, or who have studied the subject that is delivered on the MOOCs in a language other than English. Not surprisingly, recent research has found a lack of language support to be a barrier on a MOOCs (Gulatee & Nilsook, 2016), although other research finds the language of delivery not to present a barrier to MOOC takeup (Barak, Watted & Haick, 2016). Another issue with MOOCs has been found to be very weak structural design principles which could also affect their success (Margaryan, Bianco &

Littlejohn, 2015).

Despite such issues, it is arguable that in Taiwan, and in shipping courses specifically, MOOCs could be highly beneficial to students as a supplementary and additional study source. Yet, regardless of this possible advantage, no research has, to the knowledge of the applicant, been yet undertaken in this area. This is despite the fact that studies have been undertaken that have looked at the ‘subject of delivering EMI’ via a MOOCs (Baird, Borthwick & Page, 2017), and also study that has looked at delivering English Language courses via a MOOCs to those working in the maritime industry (Ferreira, 2014). Thus, the area of delivering maritime content knowledge through the medium of English via a MOOC has great potential to complement existing content delivery of such subjects. Such MOOC content would also be of huge value to students in Taiwan studying shipping content. Also, related material of MOOCs can be used for expanding students’ learning knowledge, such as “Supply Chain Logistics” (Coursea course provided by Rutgers the State University of New Jersey)¹, “Supply Chain Management: A Learning Perspective”² (Coursea course provided by Korea Advanced Institute of Science and Technology), “Fundamentals of Digital Marketing, Social Media, and E-Commerce (edX course provided by Wharton School of the University of Pennsylvania³)”.

3. 研究問題(Research Question)

3.1 Understand students’ learning barriers and feedback

Generally, students might worry their English abilities are not good enough to participate in English-based class. This project has introduced practical shipping industries cases (e.g. strategies alliance between shipping companies, the scale of economic effect in shipping industry, sailing planning of liner shipping, port operation strategies, marketing strategies of shipping companies, etc.) and innovative MOOCs content written in English in the course. Such a course planning aim to understand students’ learning interests and understand the barriers and feedback through various course activities (e.g. team work, group discussion, mid-term and final exam, etc.).

3.2 Explore how to improve students’ English abilities and learning effectiveness

¹ <https://www.coursera.org/learn/supply-chain-logistics>

² <https://www.coursera.org/learn/supply-chain-management>

³ <https://www.edx.org/course/fundamentals-digital-marketing-social-media-ecommerce-3>

This project has explored how to improve various students' English abilities (including listening, speaking, reading and writing) and learning effectiveness based on individual background, characteristics and learning expectation.

3.3 Think how to enhance learning skills to expand learning scopes and global vision

Traditionally, students' past learning experiences might not be good if introducing innovative learning methods. Also, they might feel boring when adopting traditional teaching methods (e.g. textbook memorising and paper-and-pencil testing). This project has selected several suitable learning topics (e.g. maritime law, international logistics, etc.) from the MOOCs websites (e.g. Coursea, edX, Udacity, FutureLearn, etc.) and necessary quiz to help expand their learning scope and current important shipping topics in the world.

4. 研究設計與方法(Research Methodology)

In this course, students⁴ are able to understand the key ideas of shipping industries and use effective learning strategies to present it in the classroom through class participation and discussion. Therefore, besides using well-prepared teaching materials in the classroom, the teacher encourage students to search for additional related on-line materials and share these with other course participants through homework assignment on MOOC websites (e.g. Coursea, edX, Udacity, FutureLearn, etc.). Such a process aims to strengthen students' active learning abilities and make use of useful online resources outside of the classroom. Also, taking notes skills are taught in the classroom since such a process can help students understand key topics and embed them in their own knowledge. During the mid-term and final learning period, students were asked to review their learning process and rethink what could be improved in our teaching content. If there is any teaching improvement feedback or comments, anonymous suggestions were implemented on the teaching website.⁵ The research design flow was illustrated in the following three steps:

Step 1: Lecturer's course teaching in the classroom (materials were provided on the website before the course starts), expert speeches, interviews with field experts

⁴ There are 64 sophomore students (32 male and 32 female) in the class.

⁵ i-learn 2.0 website is main teaching website at Feng Chia University. <https://ilearn2.fcu.edu.tw/>

and students.

Step 2: Students' active involvement and activities arrangement (e.g. learning sheet, homework assignment, term project presentation, mid exam and final exam).

Step 3: Students' learning feedback and comments during mid-term and final period of semester. In this stage, students are able to communicate and cooperate with others to solve real shipping case problems and present their thinking. During the implementation process, teachers appropriately adjusted the teaching process and content based on students' learning performance or suggestions. Finally, interviews with 10 students via sampling were implemented in order to collect their comment or feedback.

5. 教學暨研究成果(Teaching and Research Outcomes)

(1) 教學過程與成果 (Teaching process and outcome)

The teacher has regularly introduced shipping management content and group discussion in the class. Regarding the MOOCs, each student must register for the account of MOOCs and watch the movies. Then eight students' groups a team and assign 1-2 discussion topic based on MOOCs content for next week. Each student must review the assigned topics of MOOCs and teacher introduces the key contents of assigned topics and asks students (via sampling) to share learning experiences or comments. Finally, each team must upload the answers of the assigned topics on the platform websites. In terms of learning sheets, for example, the assigned questions are "Please describe why shipping is important in the international business" and "Why are Free Trade Agreements important for shipping development?"

(2) 教師教學反思 (Teacher's teaching rethinking)

For clearly teaching, the definition of shipping terms can be well explained through effective photo or movies in the teaching content. Besides, it is believed that good MOOCs can supplement the teaching content and enhance the English abilities. In addition, teacher usually take time to organize the teaching activities content and check each slide (including grammar). Also, the teacher can adequately adjust materials content and progress based on students' backgrounds in order to effectively achieve learning and teaching targets and consequently reduce the learning burden.

Also, the teacher should actively learn new teaching tools and website applications to modify past traditional teaching methods when adopting EMI and MOOCs teaching. Further, small group team discussions can increase the opportunities of English speaking for each student since it can reduce the fear of English learning and create a variety of thinking modes for specific learning topics through methods such as brainstorming.

(3) 學生學習回饋

Students' feedback indicated that a variety in the course contents can help them rethink learning purposes and develop confidence to understand English-based materials in the future. Regarding the learning barriers, most students thought they needed to spend more time to review and prepare the course activities due to the fact they were English-based course contents. A possible explanation is that the level of students' English are different. Students who have low learning motivation or poor English ability might feel this course is difficult. In terms of suggestions for this course, students thought visual teaching content and materials (e.g. pictures, video, Youtube) can effectively assist them to understand professional learning topics (e.g. bill of lading) and consequently strengthen learning motivation. Some students suggested that the teacher can adjust the pace of teaching speed (through close learning interaction between teachers and students) in order to ensure most students can clearly comprehend key learning issues (e.g. liner and bulk shipping) in this course.

6. 建議與省思(Recommendations and Reflections)

- (1) The content of traditional textbooks usually can not fit the current shipping development trend. The teachers must continuously collect the latest industry information to enhance the learning motivation.
- (2) The students' backgrounds are different (e.g. English abilities, learning interests, etc.) and must adjust progress to achieve the teaching and learning targets.
- (3) Practical knowledge and stories can enhance learning motivation.
- (4) The teacher can demonstrate the useful learning skills and good samples (e.g. assignment, term project) regarding grade evaluation methods.

- (5) The teacher can provide / offer office hours to help solve students' questions.

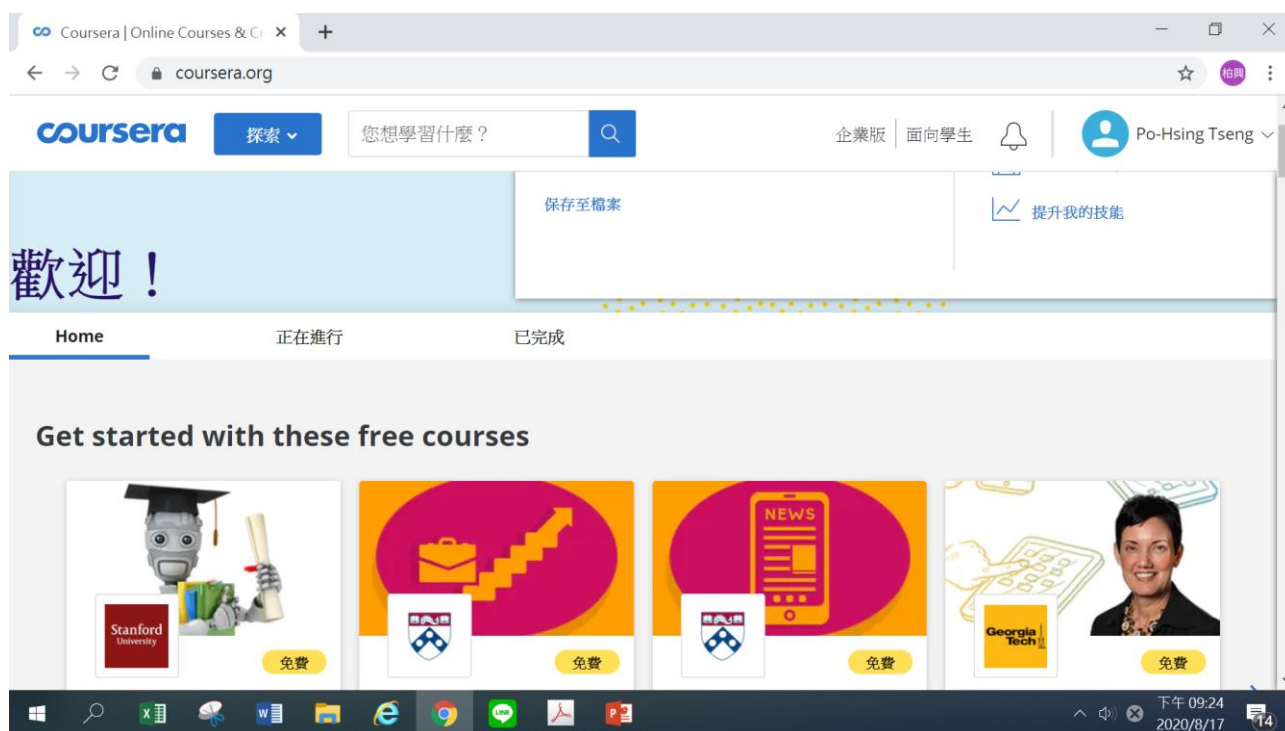
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三. 附件(Appendix)

MOOCs website pages



Large Marine Ecosystems: Assessment and Management

重置截止日期 運作方式
 看來您錯過了一些重要的截止日期。立即重置您的截止日期並開始。

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Large Marine Ecosystems: Assessment and Management

創建者 开普敦大学, National Oceanic and Atmospheric Administration (NOAA), IW:LEARN, Global Environment Facility (GEF), United Nations Development Programme (UNDP-GEF), UNESCO-IOC, United Nations Environment Programme

總覽

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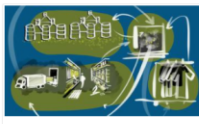
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International Business Doug Tl... Module 1, Intro - 新墨西哥

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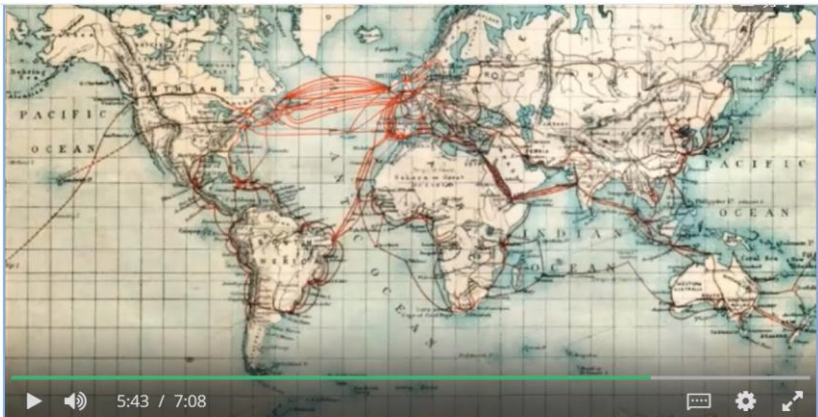
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Week 1

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- 視頻: Module 1, Part 1 9 min
- 視頻: Module 1, Part 2 6 min
- 視頻: Module 1, Part 3 5 min
- 視頻: Module 1, Part 4 6 min
- 視頻: Module 1, Part 5 7 min
- 測驗: Module 1 Quiz



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Week 1

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- 視頻: Module 1, Part 4 6 min
- 視頻: Module 1, Part 5 7 min
- 測驗: Module 1 Quiz

Module 1, Part 1



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Interview Questions

The interview questions include “What are the main barriers for you when you follow this course?” and “Do you have any suggestions for this course?”

Students' Presentation

