

EXPLORING FACTORS CONTRIBUTING TO
VOLUNTARY MOOC COMPLETION AMONG
POSTGRADUATE STUDENTS

BY

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ABSTRACT

The purpose of this qualitative study was to explore the factors contributing to voluntary MOOC completion among postgraduate students. The study's participants were six postgraduate students who had obtained their master's (n = 2) and doctoral (n = 4) degrees. They were selected using purposeful sampling with the primary criterion of selection being postgraduate students who had successfully and voluntarily completed a MOOC. The data were gathered through semi-structured interviews and a document analysis to look at the learning analytics of the students on their MOOCs. For data triangulation, the study ran an interview with a local MOOC expert and a document analysis. The interview data were transcribed verbatim, and a thematic analysis was conducted to extract the factors that contributed to the participants' successful MOOC completion. The main findings revealed that four factors were at play, namely MOOC design, MOOC instructors, support, and self-regulated learning. In addition, how the participants experienced MOOCs at their respective MOOC platforms was a critical success factor. Their varying MOOC experiences could be divided into four themes, namely the challenges the participants faced in completing their respective MOOCs, how they retained their interest in completing the MOOCs in the face of challenges, the various types of support they needed in completing the MOOCs, and the recommendations made to other postgraduate students in studying via MOOCs. The findings contributed to the formation of a model on the factors contributing to successful MOOC completion among postgraduate students and should help to improve the development of MOOCs in Malaysian higher education in the future to motivate students to complete the MOOCs they have decided to undertake.

ملخص البحث

أجريت هذه الدراسة ذات المنهج النوعي بغرض استكشاف العوامل التي تؤدي إلى إكمال طلاب الدراسات العليا للمسابقات التعليمية الإلكترونية إلى آخرها طوعا، وقد شارك فيها ستة طلاب، اثنان منهما حصلا على الماجستير، وأربعة حصلوا على الدكتوراه، وقد اختيروا كعينة عمدية يتوفر فيها معيار كونهم من طلاب الدراسات العليا الذين أكملوا مساقا تعليميا مفتوحا عبر الإنترنت التحقوا به بمبادرة منهم. أما بالنسبة لبيانات الدراسة فقد جمعت عن طريق مقابلات شبه مهيكلة مع الطلاب الستة ومن ثم تحليلها تحليلا نصيا لفهم عملية التعلم في المسابقات التي أكملوها. ولتدعيم البيانات أجرت الباحثة كذلك مقابلة مع خبير تعليمي وحلت محتواها تحليلا نصيا أيضا. وبعد تدوين محتوى المقابلات لاستخراج المواضيع الرئيسية المتعلقة بالعوامل التي تؤدي إلى إكمال طلاب الدراسات العليا للمسابقات التعليمية الإلكترونية حتى نهايتها طوعا تبين أن هذه العوامل أربعة، وهي تصميم المساق، والمعلم، والدعم الذي يجده الطالب، وقدرته على التحكم في عملية التعلم، كما تبين أيضا أن تجربة الطلاب مع المسابقات التي أتموها على المنصات الإلكترونية كانت عاملا مهما جدا، وهي تجربة يمكن تقسيمها إلى مسائل أربعة، وهي التحديات التي يواجهها الطلاب الراغبون في إكمال مساق تعليمي إلكتروني، وكيفية حفاظهم على نفس المستوى من الاهتمام بالمساق التعليمي عند مواجهة تحديات، وأنواع الدعم الذي يحتاجونه لإكمال المساق، والتوصيات المقدمة لطلاب الدراسات العليا الآخرين من الراغبين في الالتحاق بمساق تعليمي إلكتروني. وعموما فإن نتائج الدراسة أسهمت في تكوين نموذج للعوامل التي يمكن أن تمكن طلاب الدراسات العليا من إتمام المسابقات التعليمية الإلكترونية بنجاح، ويمكن أن تساعد مستقبلا في تحسين المسابقات التعليمية الإلكترونية في الجامعات الماليزية وذلك من أجل دفع الطلاب الذين يقررون الاشتراك فيها إلى إكمالها.

APPROVAL PAGE

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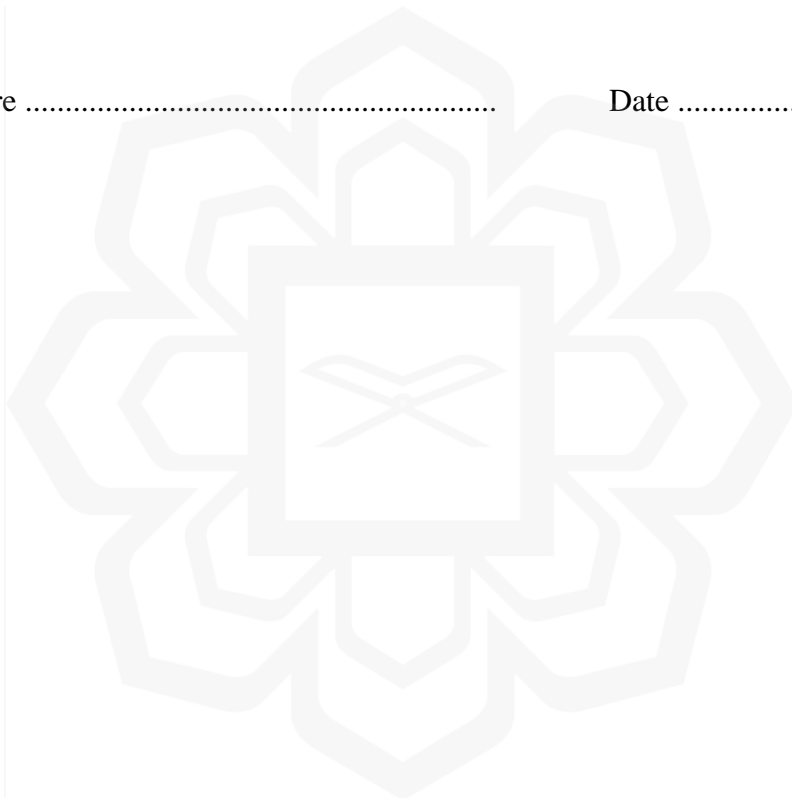
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DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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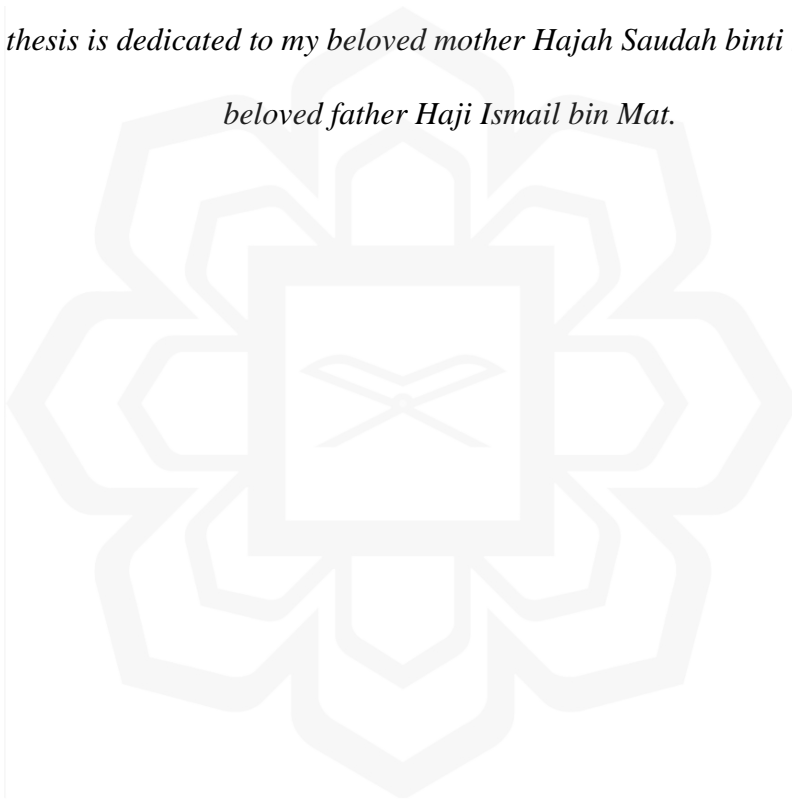
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*This thesis is dedicated to my beloved mother Hajah Saudah binti Saad and my
beloved father Haji Ismail bin Mat.*



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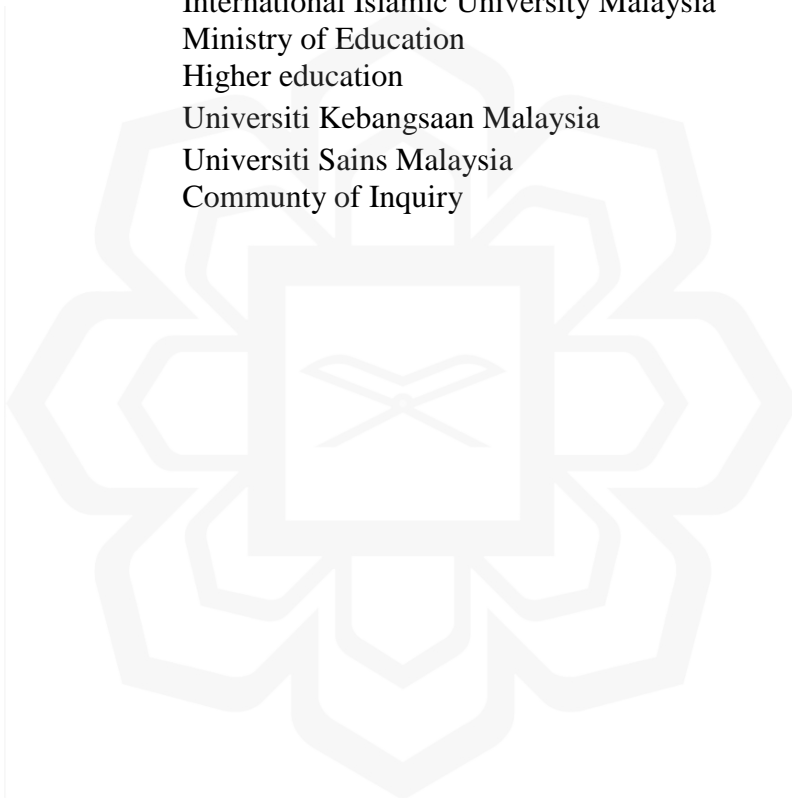


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LIST OF ABBREVIATIONS

MOOCs	Massive Open Online Courses
PSPTN	The National Higher Education Strategic Plan
TVET	Quality Technical Vocational Education and Training
MEIPTA	Malaysian e-Learning Council for Public Universities
TAs	Teaching Assistants
SLR	Self-regulated Learning
CV	Curriculum vitae
OUM	Open University Malaysia
HLIs	Higher Learning Institutions
IIUM	International Islamic University Malaysia
MOE	Ministry of Education
HE	Higher education
UKM	Universiti Kebangsaan Malaysia
USM	Universiti Sains Malaysia
COL	Community of Inquiry



CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Massive Open Online Courses (MOOCs) are one of the more noticeable phenomena amid the recent shift in the learning environment (Sari, Bonk & Zhu, 2020). In 2012, massive open online courses (MOOCs) first captured global attention and advocates imagined a transformation in higher institution education with video lectures from the world's best professors broadcasted to the farthest reaches of the networked world. In addition, even in remote places with limited access to traditional education, students could do advanced computer-graded assessments (Reich & Ruipérez-Valiente, 2019). The variety of online tools, online spaces, social media and online activities is proliferating, with online learning and learning opportunities as an essential part of this universe. Over the last decade or so, many institutions of higher education have offered more straightforward access to learning for the masses of students both locally and at a distance through MOOCs (Massive Open Online Courses). Learning through MOOCs is mainly free, and this development also means a growing population of students for the institutions (Jacobsen, 2019). Hence, Massive Online Open courses (MOOCs) open up access to world-class teaching and educational resources beyond social and geographical boundaries. This learning opportunity provided all over the world is available through online and open access which enables instructions to be delivered to thousands of learners at the same time (Schulze, 2014). Some of the benefits are for those students in developing countries where the costs of travel and tuition are too high that prohibit them from attending face-to-face education at top western universities. MOOC is more extensive in scale, has no restrictions on individual participation,

globally distributed across different types of networks, and they aim at revolutionizing the way education happens (Bayeck, 2016). In addition, MOOC is open and invitational where everyone who wishes to participate is included, and it only depends on their needs and wishes, such as, they register to participate in MOOC because of requirements of the workplace and personal interest (Mcauley, Stewart, Siemens & Cormier, 2010).

The chapter begins with a brief explanation of the background of MOOCs and the establishment of MOOCs in Malaysia. It will also emphasise the problem of dropout rates in MOOCs. It then moves on to the statement of the problem, purpose of the study, research questions for this study, significance of the study and theoretical framework. The chapter ends with a discussion on some delimitations of the study and definitions of the terms used.

1.2 A BRIEF OVERVIEW OF MASSIVE OPEN ONLINE COURSES

According to Kelleher (2017), public and private sector organizations are embracing MOOCs. The MOOC concept started in the West, and now it is popular in Asia too. The characteristics of MOOCs are massiveness, openness and connectivity. MOOCs could be accessed by a massive number of people from all over the world. Therefore, no one is excluded from accessing MOOCs despite reasons of time, geographical location and financial hardship. Taking part in MOOCs is voluntary, and it also depends on the learner's motivation and interest (Bailey, Cassidy & Breakwell, 2014). This is asserted by Subhi, Andresen, Bojsen, Nilsson and Konge (2014) who mentioned that MOOC participation is no longer limited by time of day or geographic location. According to McAuley, Stewart, Siemens and Cormier (2010), MOOC learners are self-organized in their participation depending on the learners' learning goals, prior

knowledge and skills and their common interest. MOOC is popular among western universities. Zhong, Zhang, Li and Liu (2016) claimed that Coursera, one of the MOOC providers has more than 100 university partners including Princeton, Brown, Columbia, Duke, Stanford, John Hopkins and others, with a registration of 22 million participants who come from 190 different countries. Students who come from all over the world that use Coursera platform have posted more than 590 thousand topics. Additionally, edX which is also another MOOC provider has provided more than 300 courses in many areas of study. There are 38 members of edX consortium including MIT, Harvard University, University of Toronto, University of Tokyo, The Hong Kong University of Science and Technology, Peking University, and Tsinghua University. edX has provided more than 300 courses in many areas of study. As of December 2019, Class Central which is a website that provides a listing of online course reported that MOOC had 110 million students around the world with more than 900 universities that offered 13,500 courses (Mc Klusley, 2020).

1.3 MOOCS IN MALAYSIA

Massive Open Online Courses (MOOCs) are a new way of learning that is gaining its popularity in the world, and many universities around the world have started MOOC. In Malaysia, MOOCs have been developed by all public universities in the country. The announcement of the first Malaysian higher education institution to pilot MOOC was in March 2013. In 2014, five higher education institutions in Malaysia, consisting of four public universities and a private institution, which was Open University Malaysia (OUM), began offering MOOCs as stated by Mansor, Latifah and Tengku Amina Munira (2015). In 2015, The Malaysian MOOC was first launched for public higher learning institutions through an official MOOC platform which was called

OpenLearning.com. Instructors or lecturers developed the MOOCs based on the needs set by the higher institutions (Kumar & Al-Samarraie, 2018).

At present, all public universities in Malaysia have participated, and some of them include National University of Malaysia, University Putra Malaysia, Universiti Sains Malaysia and the International Islamic University Malaysia, to name a few. This enabled 445 courses to be offered with 393,747 students from all around the world. MOOC is the main agenda under the Ministry of Education (Ministry of Higher Education, 2020). According to Haron, Hussin, Mohd Yusof and Yusof (2019):

In April 2015, a Ministry of Higher Education has launched the Malaysian Educational Blueprint for Higher Education (2015- 2025). The development process of this blueprint started with a review of The National Higher Education Strategic Plan (PSPTN) with three distinct phases as follow: 1. PHASE 1 – Review of PSPTN (February 2013 to February 2014): The Ministry started off with a comprehensive review of current performance and progress on PSPTN to establish a robust fact base on its strengths and weaknesses. 2. PHASE 2 – Conceptualization of the 10 shifts (March 2014 to September 2014): The Ministry identified 10 shifts that would be needed to take the Malaysian higher education system to the next level. 3. PHASE 3 – Finalization of the Malaysia Education Blueprint (Higher Education) (October 2014 to March 2015).The blueprint has outlined 10 Shifts that will spur continued excellence in the higher education system namely Holistic, Entrepreneurial and Balanced Graduates, Talent Excellence, Nation of Lifelong Learners, Quality Technical Vocational Education and Training (TVET) Graduates, Financial Sustainability, Empowered Governance, Innovation Ecosystem, Global Prominence, Globalised Online Learning and Transformed Higher Education Delivery (PPPM 2015-2025) (p.28).

MOOCs are addressed under the 9th shift of the Malaysian Educational Blueprint for Higher Education (2015- 2025), which is Globalised Online Learning. Simultaneously, Australia-based OpenLearning has partnered with MEIPTA to develop the MOOC portal at public universities for coordination between public universities. MEIPTA is the Malaysian e-Learning Council for Public Universities, and its function is to coordinate the e-learning activities in all public universities in Malaysia. MEIPTA is

involved in the development and deployment process since the launch of MOOC (Haron et al., 2019). Currently, the adoption of MOOCs in Malaysia is also in line with several critical national plans, for example, the 11th Malaysia Plan (2016-2020), the National Economic Model, Economic Transformation Programme and the Malaysian Education Blueprint for Higher Education. Malaysia's approach in MOOCs is more on learning to use web-based technology to complement current educational delivery systems at the higher education level. It is also a way to introduce MOOCs to the general Malaysian audience. Some reasons for adopting MOOCs in higher education institutions are to democratise education where MOOCs are meant in providing quality education for anybody who seeks it, promoting an institution's brand, attracting new learners to enrol at an institution, collaborating with other institutions, promoting online education research and development and lastly transforming traditional teaching and learning approaches to the latest trend which is online learning (Mansor et al., 2015).

1.4 STATEMENT OF THE PROBLEM

MOOCs are a valuable learning resource which is a new norm of education that requires remote teaching and learning to be conducted online. At present, MOOCs are valuable because the problem of coronavirus (COVID-19) that is spreading around the world at the time of the thesis being written, which has led to schools and higher institutions in America resorting to online learning. MOOCs are a valuable alternative to acquire knowledge as students are unable to study face-to-face at the university. Hence, with the problem of coronavirus (COVID-19) pandemic now, people are turning their attention to studying using MOOCs. Students are now searching for MOOCs as a great alternative of gaining knowledge and skills during the COVID-19 pandemic (Newman, 2020).

Cornock (2020) explained that there is a need for educational support during the coronavirus. Thus, students and educators are studying online with their personal learning spaces which may be formal or informal in order to seek learning content to meet short-term learning needs. The students and educators also have their own choice of equipment, tools, apps and preferences of communication in order to learn online. Hence, MOOC is considered the best alternative and a precious mode of acquiring knowledge through online learning during this coronavirus (COVID-19) pandemic. It was reported by an expert, in the United States that people would be looking at MOOCs while they are at home during the COVID-19 pandemic. MOOCs can be an affordable way of learning as it is free. MOOCs are also the best way to keep the skills sharp or learn new ones, and a great way to continue learning, to showcase the accomplishments (MOOC certificates) on LinkedIn profiles or enhance resumes or build skills that are in demand (McCluskey, 2020; Dennon, 2020). Besides, students are having anxieties of whether they can still go to university or when it will open again. They are now searching for MOOCs as a great alternative of gaining knowledge and skills (Newman, 2020). During the COVID-19 pandemic, the Udacity platform saw a 44.8% increase in weekly active users in the four weeks from March 9 to April 6 in 2020. The Udacity platform also saw a 73.3% increase in new enrolments over the same period, and there is also an upsurge of enrolments in MOOC platforms such as edX, FutureLearn and Coursera (McCluskey, 2020; Robson, 2020). Hence, it is apparent that MOOCs are very valuable now, especially during the coronavirus pandemic as people are seeking knowledge from their own home.

However, despite the popularity of and the hype associated with MOOCs, many students who registered in the online courses failed to complete them. MOOCs have shown meager completion rates even though they are providing advanced coursework

online to learners worldwide (Handoko, Gronseth, Mcneil, Bonk & Robin, 2019). The dropout rates are very high, and retention rates or completion rates are very low, at about 10%, (Hone & El Said, 2016; Watted & Barak, 2018). Three features of MOOCs cause low completion rates but high enrolment numbers. First is in terms of cost whereby it is free of charge and makes it available for lower-income people and people who come from poorer countries. This means higher education through the MOOC platform is not only available for the wealthy only but also for the poor. Secondly, MOOCs are flexible. They are accessed at the convenience of users. If a learner registers, but has a conflicting schedule with the MOOC's schedule, then the learner cannot complete the course. Third, MOOC is easily accessible to anyone that has an internet connection. All these three factors are the reasons why MOOC is attracting vast numbers of registrants, but the completion rates are still low (Schulze, 2014).

It is essential to complete MOOC because this was the initiative of the United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2002, 2012) which established that free access to educational resources online is a strategy to upgrade the quality of education (Gomez-Zermeno & Aleman, 2016). If students do not complete MOOCs, this is just a waste. As claimed by Wang and Baker (2015), "It is worth noting that course completion is one of many metrics that can be used to study persistence and learning in the context of MOOCs" (p.18). Hence, it indicates that studying on MOOC completion is crucial because it is good to complete MOOC and obtain many MOOC certificates as credentials. After all, as stated by McCluskey (2020), if people were to be out of work, they would need more education to find a similar job thus MOOC is the best way to obtain certificates as proof of education. He also asserted that Gen Xers and millennials reported feeling the most pressure in continuing education because the coronavirus is causing economic suffering, but with

MOOCs, which are often either free or low-cost, can help in obtaining knowledge. Even though Vilkova (2019) considered MOOCs as an innovation in education; they still suffer from low completion rates. Many students have not completed the MOOCs that they took even though MOOCs have attracted many students every year (Kruchinin, 2019). Phil Hill (as cited in Gsiemens, 2012) predicted about problems that MOOC would face in the future. Figure 1.1 shows the potential future problems, which were revenue models, credentialing badges or accreditation, course completion rate and student authentication.

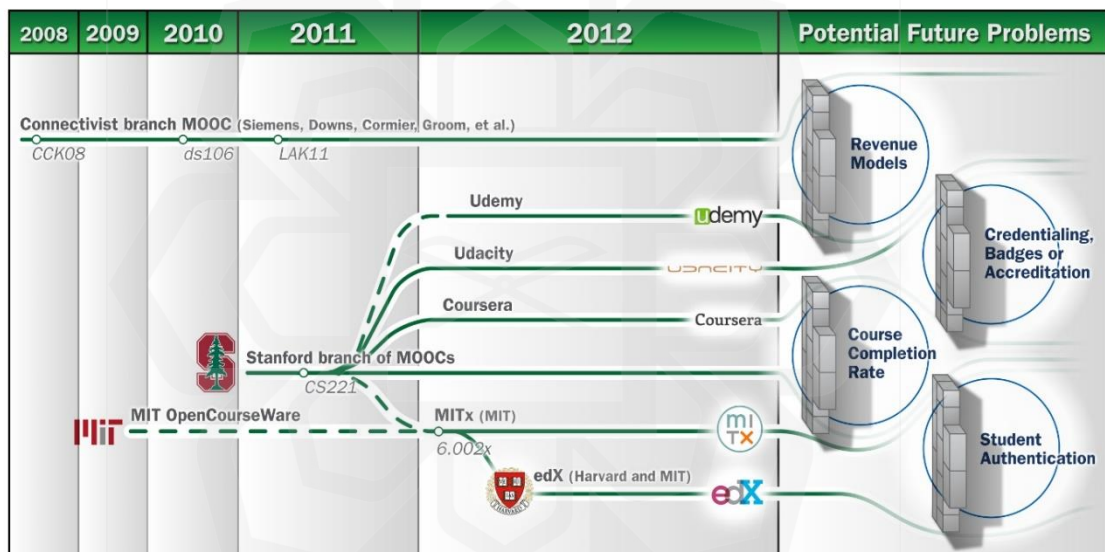


Figure 1.1 Potential future problems, Gsiemens (2012, para. 4)

As can be seen in the diagram, one of the problems that was predicted in the future for MOOCs was the course completion rate. What he had predicted is happening at present because MOOC is suffering due to the increasing drop-out rates (Zheng, Rosson, Shih & Carroll, 2015).

Several studies were conducted in many countries on the issue of the low completion rate. The studies revealed that despite high enrolment numbers, low