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研究課題名(和文) Development of a Massively Open Online Course (MOOC) for Language Training to Support the Globalization of the Hospitality Services Industry

研究課題名(英文) Development of a Massively Open Online Course (MOOC) for Language Training to Support the Globalization of the Hospitality Services Industry

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研究成果の概要(和文)：このプロジェクトは、Massive Online Open Courseの開発に必要なプロセスについての調査から始まりました。その目的は、コースの作成プロセスを学ぶことでした。プロジェクトの最初の数年間、チームはMOOCの設計とコンテンツ作成について多くのことを学びました。しかし、Covid19の世界的流行が到来すると、MOOCのコンテンツ制作で学んだことが、その後オンデマンドのカリキュラム開発に生かされることになりました。結局、オンラインでのセルフアクセス学習の実現はある程度成功したのですが、その量を測るのは難しいことでした。

研究成果の学術的意義や社会的意義

この研究から得られた主な成果は、オンライン・コンテンツの開発プロセスについて書かれたプレゼンテーションや論文で共有されました。この研究の主な受益者は、自分たちのカリキュラムのためにオンラインコンテンツを開発しようとしている教育者です。最大の成果は、Massive Open Online Coursesの開発には、コンテンツ制作の専門部署が必要であることです。しかし、MOOC開発で学んだ方法論は、世界的なパンデミックに直面した際のオンデマンドカリキュラム開発にも適用できることが示されました。

研究成果の概要(英文)：This project began as an inquiry into the processes required for developing a Massive Online Open Course. The goal was to learn the process for creating the course. In the first years of the project, the team learned a lot about designing and creating content for a MOOC. However, once the Covid19 global pandemic arrived, the lessons learned in content making for a MOOC were then applied to developing on-demand curriculums. In the end, some degree of success in creating online self-access learning was achieved but it was difficult to measure the amount of success.

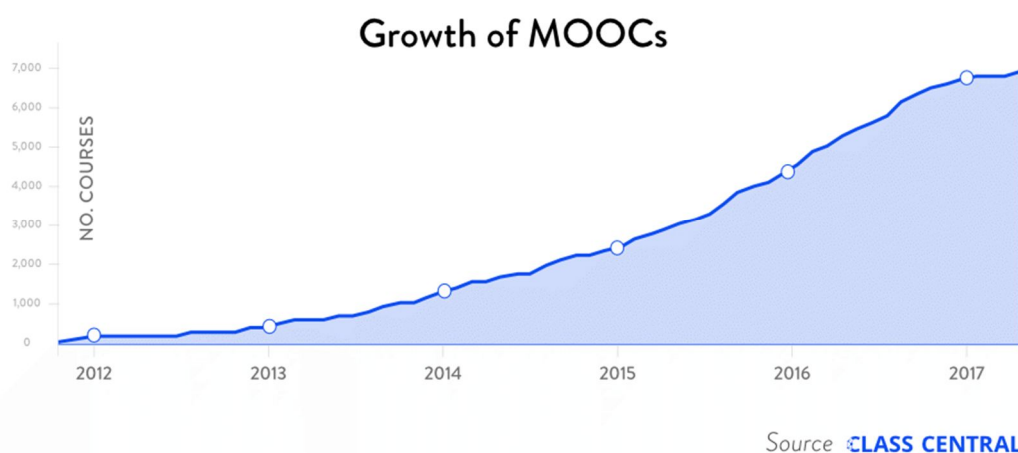
研究分野：education technology and content development

キーワード：edtech content development on-demand curriculum MOOC

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1. 研究開始当初の背景

Can MOOC be effectively implemented for English Language Training in order to support the Globalization of the Hospitality Services Industry? This was the "key scientific question" proposed by this research. The global trend for MOOC began with the launch of Stanford University's *Introduction to Artificial Intelligence* in 2011 (Pérez-Peña, 2012) which enrolled over 160,000 students and has been seen as a force of change in education paradigms. Since then, universities have moved to offer over 6000 online self-access self-study courses in MOOC format.



However, the number of MOOCs specifically aimed at the language learning field is less than 100 as reported by Class Central (class-central.com) in 2016. The number of courses for learning English is still relatively small and those that target the Japanese learner are almost non-existent.

As of 2016, Class Central (class-central.com) reported 58 million enrolled users at over 700 universities and 6,850 courses made available worldwide in MOOC format (Shah, Dec 25, 2016). However, despite the large number of available online courses, there is not a large focus on Language Learning within the MOOC phenomenon. Bárcena and Martín-Monje (2014) reported that including the big MOOC providers, less than 30 LMOOC courses were available as of the report in 2014. After more than 5 years and thousands of "teacherless courses" and a growing popularity, the level of effectiveness for MOOCs for English Language Training in the hospitality services industry is not fully understood even though it continues to be studied at a general level. No available studies supporting positive effects of LMOOCs for English language training have been found to this date.

2. 研究の目的

The main research goal of this project was to design and develop a MOOC for learning English in the hospitality services industry. Through the development process for creating and delivering an online self-access self-learning course, the participants tried to both validate existing research on MOOCs and also continued to study how a MOOC functions as an online training and learning tool for English language learning in the hospitality services industry. The effectiveness of the method, means, and

effort were meant to be measured and reported.

The secondary research goal of this project was to develop and document the procedure for implementing Massive Open Online Courseware for institutions seeking to support the greater local community with ICT-based courses. At this time the ability of institutions to offer these resources may be limited by a lack of understanding and clarity of the process by which they are made. While larger institutions within Japan have successfully launched MOOCs (Kyoto University 2013, Tokyo University 2013, Keio University 2015), the wider community of universities throughout Japan still have yet to offer online courses.

The tertiary research goal of this project is to provide language training for hospitality service industry in support of the MEXT goals for globalization through the use of more comprehensive English curriculum beginning in the early stages of elementary school and continuing through university.

3 . 研究の方法

The initial plans for this project included researching the development of a Massive Open Online Course focused on English for the Hospitality Services Industry. The primary goal was to study how to create a MOOC. The secondary goal was to experiment with promoting, launching, and monitoring it. An additional goal was to document the processes and make that documentation available to others hoping to follow a similar course.

The team researched the design and development of courseware and self-access self-paced learning online through the many popular MOOC sites, including Coursera, edX, and gacco. In addition, the literature on MOOCs and their effectiveness were studied to gain a broader understanding of what makes any MOOC successful.

Technology purchases were made to develop online materials, including web content, media, audio, video, video animations, and other online resources. Examples were gleaned from an existing MOOC project in a related KAKEN grant at Sojo University. The aspects of the Sojo project were studied, and the course design for the MOOC was made using the templates available from that project. The better part of the first two years of this project was spent on these areas, although a final curriculum was never completed.

At the end of this time, the team had made some progress in studying and learning about the processes of developing the MOOC project. An online website using Moodle as the platform for the course was launched, and course contents began to be developed. The process of learning animation techniques was also studied and prototyped during this time. In addition, the team continued to document the process of developing a MOOC. During the first two years of the project, the researchers determined that many of the development activities take a lot more time, effort, and resources than initially anticipated. Some team members departed, and others joined the team, which hampered the overall efforts. As a result, progress was slower than expected.

Due to the effects of the COVID-19 pandemic, the team quickly changed gears from MOOC development to online content development for distance and remote learning in the spring of 2020. The lessons learned during MOOC development helped greatly when designing the distance learning courses. Moreover, the use of functionality such as completion tracking and conditional access (features of Moodle LMS) allowed for a controlled flow of student activity when face-to-face guidance was not available.

However, even with controlled access to materials and contents, online live classes still proved challenging. In response, a shift to "on-demand" courses was made in the summer of 2020. The team worked under immense pressure to record on-demand video explanations for various parts of English listening and speaking classes in time for the start of the second semester. Hours of production were done to link the videos with narrated slideshows and explanations for three levels of classes. Each of the levels supported 15 weeks of standard curriculum requiring no live interaction between students and instructors. In essence, these were small-scale MOOC courses designed for the current environment of remote learning.

The team developed the three levels of English listening and speaking courses based on the Pearson Asia English Firsthand series. The three levels covered advanced students, standard students, and lower-level students.

After the fall semester was completed, the team decided in the spring of 2021 to modify the curriculum based on the analysis of the student interactions with the recorded video explanations. In terms of content creation, the team learned that longer, more complete explanations are less favorable than shortened, simplified explanations.

The modifications to the curriculum came in the form of simple bi-lingual slideshows that students needed to click through to get to the next activity. This ensured that students viewed the materials, but no assumptions could be made about how well they interacted with the explanations. An additional introduction video using newly learned H5P interactive technology allowed the content makers to develop an interactive video that allowed instructors to embed specific questions within the explanation video and provided a gateway through which students needed to pass to get to the next activity.

This new curriculum was launched in April of 2021 and met with relatively good results. The comparisons between the on-demand curriculum and the formerly live face-to-face lessons were unable to be made with precise certainty. However, the pass/fail ratios for the two types of classes remained virtually the same. At the time of the launch of this modified "mini-MOOC" curriculum for English listening and speaking classes, an additional prototype was created for the English reading and writing curriculum.

In the listening and speaking curriculum, students made use of a textbook with an online practice component linked to the primary university Moodle site. Students would step through each of the

weekly activities, and Learning Tools Interoperability connected the university Moodle site with the companion website for the textbook. That allowed for smooth single-sign-on connections, and scores for each of the various activities were returned to the university Moodle site.

In the reading and writing curriculum, students were required to purchase access to two remote learning websites. One website was focused on vocabulary exercises adjusted for each individual student's level (WordEngine.jp). The other website was an online library of graded English readers that allowed students to practice Extensive Reading (Xreading.com). The students worked towards specific weekly goals on both platforms and then wrote a simple English report about one of the books they read during the week.

4 . 研究成果

Observations and adjustments continue to be made to these two types of curricula. The closely integrated listening and speaking curriculum resulted in a smoother operation for the students by making it easier to navigate from week to week to complete the required activities. The reading and writing curriculum suffered because students needed to study on three unconnected websites - the university Moodle site, the vocabulary website, and the extensive reading website. Some students struggled to gain access to these materials, and some of the activities were only marginally successful. While the scores and rates of passing for the listening and speaking curriculum were on par with the known historical face-to-face classes, the reading and writing curriculum had much higher rates of failure, especially in lower-level classes.

The project overall evolved and morphed from the planned MOOC for language learning into a series of on-demand "mini-MOOCs" with grading. The plans for learning the steps of MOOC development and documenting them in a guidebook had to be shelved as the researchers scrambled to balance their workloads under the strains of the remote learning environments imposed by the university due to the pandemic. Additionally, research on animating explanation videos and developing unique content focused on the hospitality industry had also to be abandoned in favor of a more general English curriculum to meet the needs of the students taking remote classes.

The team reported on these changes at online international conferences over the course of the project. The team also wrote research notes in the corresponding university journal discussing the progress and discoveries made during the project as it evolved. Varying degrees of success in the understanding of online content development and delivery resulted in the researchers learning a variety of lessons. In the future, these lessons can be applied to continue researching MOOC development as well as online live and on-demand curriculums.

5. 主な発表論文等

〔雑誌論文〕 計2件（うち査読付論文 2件 / うち国際共著 0件 / うちオープンアクセス 2件）

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〔図書〕 計0件

〔産業財産権〕

〔その他〕

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6. 研究組織

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研究分担者	L a C l a r e E l t o n (LaClare Elton) (20720593)	崇城大学・SILC・准教授 (37401)	Served as advisor.
研究分担者	ロベージュ ルーク (Roberge Luc) (90765603)	長崎短期大学・その他部局等・准教授（移行） (47303)	Left early due to employment changes.
研究分担者	C l a r o J e n n i f e r (Claro Jennifer) (20455710)	北見工業大学・工学部・講師 (10106)	Joined late as a contributor, but no contributions.

7. 科研費を使用して開催した国際研究集会

〔国際研究集会〕 計0件

8. 本研究に関連して実施した国際共同研究の実施状況

共同研究相手国	相手方研究機関