研究論文

Online English Classes Are Coming to Schools and Disseminating the Use of Learning Management Systems That Help in Conducting Language Activities and Sharing of Productions and Feedback among Peers

オンライン授業とともに急速に利用が広まったLMS（学習管理システム）の
英語科授業（主に言語活動）における活用方法について

KEY WORDS
オンライン授業，LMS（学習管理システム），対面による英語科授業への応用

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【要旨】

新型コロナウイルス感染症（COVID-19）の流行の影響により，2020年４月頃から大学を中心に日本国内のみならず世界的にオンライン授業が劇的に普及し，これに伴ってLMS（学習管理システム）の利用も劇的に拡大した。LMS としてよく利用されている代表的な一つとしてGoogleが提供するG Suite for Educationがあるが，2020年9月現在のそれは，電子文書（資料）配布，お知らせ（掲示版とメール送信），課題や小テストの提示とそれらの提出物回収それに採点結果やフィードバックの返却，受講者名簿とともに出欠や課題得点や小テスト得点等のデータ整理といった学習管理機能を備え，さらに英語科授業においては特に言語活動で使用できる効率的な場所や道具としても活用できる。どのような活用方法があるのかアイディアを記述し，教育研究者や英語教員間で共有することがまず必要なため，本稿ではこれをおこなう。対面授業においてもICT活用の一環としてLMSを活用することが，英語科授業の特に言語活動において有効と推測される。今後，教育効果に関する実証研究が待たれる。

1. Introduction

On-line classes suddenly appeared in schools, especially universities, in major developed countries around the world after the coronavirus (COVID-19) pandemic broke out in January (in China), February (in Japan), and March (in Europe and the USA), 2020. Most universities around the world began prohibiting students from commuting to their campuses or entering their buildings; instead, they started offering online classes. In large cities such as Beijing and Shanghai in China, elementary schools offer online classes, including even Physical Education (where they dance together, looking at their classmates' movements) through the screens of video conference systems on the Internet.

On the other hand, in Japan, almost all elementary schools and public junior high schools and most public senior high schools do not offer any online classes with video conference systems on the Internet because computers and broadband Internet systems are not available to all the students, although their classes have been canceled and students were required to stay home from the beginning of March to the middle of June. Some prep schools (*juku*), many private junior and senior high schools, and almost all universities offered online classes during that period. A large number of universities have continued with online classes as of September 2020.

Generally, as people become older, they are likely to avoid adopting new technologies and dramatic changes in their lives. Needless to say, older teachers are also likely to avoid adopting new technologies and new teaching methods and to be against adopting new teaching systems such as online class/teaching systems. Educational effects, including both the advantages and disadvantages of online class/teaching systems, should be carefully analyzed and cautiously discussed to offer better education with few detriments. However, the unexpected phenomenon that students were abruptly forbidden to commute to school or enter their classrooms emerged due to the COVID-19 pandemic. Therefore, educational organizations such as universities and private junior/senior high schools did not have time to consider the advantages and disadvantages of adopting online classes. The professors and teachers did not have any chance to express their opinions for or against adopting online teaching systems. Katagiri (2020, p. 9) claimed that "many Japanese teachers of English, including professors and researchers of English education, are likely to avoid speculating the future of artificial intelligence (AI) and its impact on English learning and education." This might be ironical, but the educational revolutions that online teaching systems dramatically prevailed in universities were achieved due to the influences of the COVID-19 pandemic.

Iwasaki et al. (2008) already stated in 2008, "A learning management system, (LMS), is now being widely adopted to complement face-to-face lectures at universities" (p. 10), and examined its effectiveness and problems by analyzing three cases of teaching practices under the LMS. Learning management systems (LMSs) have been utilized in universities in Japan for more than a decade, but only by a small percentage of core users (teachers) and by many casual users. However, most teachers in universities throughout Japan suddenly had no choice but to utilize LMSs and video conference systems such as Zoom Video Communications, Google Meet, and Microsoft Teams, when online classes began instead of in-building classes due to the COVID-19 pandemic at the beginning of the 2020 academic year. As of September 2020, no one knows when these online class/teaching systems will end or whether they will partially last as

part of blended systems permanently.

As described above, online classes/teaching systems began unexpectedly, with no preparation. Methods or ideas on how to teach English through online classes have not yet been studied or shared adequately, and their educational effects have not yet been examined sufficiently, either. Their advantages and disadvantages have also not yet been discussed amply.

In this paper, the author proposes methods or ideas on how to conduct language activities through LMSs in both online classes and in-building classes as blended learning in junior/senior high schools and universities in Japan.

2. Previous Studies

Sumi and Takeuchi (2010) stated that "Influenced by these changes, CALL researchers and practitioners have been attracted by Web-based technology such as the learning management system (LMS), which they use as a tool to integrate many aspects of teaching practices, instead of using LL or CALL classroom" (p. 52), and they proposed "cyclic model of learning (CML)" whose most distinctive feature is that it integrates in-class teaching practices with outside-of-the-class students' self-learning with the aid of technology and examined how the CML influence the improvement of students' English ability.

Yamamoto and Ohba (2018) empirically examined the educational effects of blended learning (learning at a in-building class and e-learning) utilizing "Google Classroom" as LMS with the research design of a experimental group and a control group, and the results showed that negative effects were found on motivation probably because of problems of language proficiency levels, stresses, shortages of interactional communication, and usability of personal computers and that the positive effects were confirmed on the posttest of speaking.

Yamakawa (2019) described the functions of "Google Classroom" as LMS and showed some methods and ways how to use it not from the viewpoint of language education but from general and comprehensive viewpoint for all the classes through all over interdisciplines at university.

Rentler and Apple (2020) distributed a quantitative Technology Acceptance Model survey, which consists 17 questions, to 446 students and 16 English lecturers, to understand student and faculty perceptions of "Manaba," one of the popular LMSs in Japan, and they found that students show positive attitudes towards using the Manaba LMS for the completion of homework assignments and assessments and that the students perceived e-learning via online homework as useful.

Methods and ways how to use LMS for English classes (language education), which can be utilized at in-building classes as blended learning as well as in on-line classes, have not been

considered adequately yet so far, so the purpose of this paper is to propose some.

3. Google's G Suite for Education Exceeding LMSs

As of the 2020 academic year, several LMSs such as "Manaba," "Moodle," and "Google's G Suite for Education" have been utilized at many universities in Japan. In this paper, Google's G Suite for Education is considered one of the popular LMSs because of the superiorities stated below. According to Google for Education (n.d., "G Suite for Education" section), Google's G Suite for Education provides teachers with free and secure tools to (1) collaborate anywhere with students by way of co-editing documents, spreadsheets, and presentations in real time using applications such as Docs, Sheets, Slides, Drive, and Jamboard, (2) communicate teachers' ways by connecting their classrooms with email, chat, and video using applications such as Gmail, Chat, and Meet, (3) manage teachers' classrooms simply by creating classes, making assignments, giving quizzes, and saving grading time using applications such as Classroom, Assignments, and Forms, (4) organize tasks by building to-do lists, creating task reminders, and scheduling meetings with Keep and Calendar, and (5) administer and scale confidently by managing students, devices, and security so that data stays safe and one can scale as needed using the Admin application. Google's G Suite for Education offers many functions to both teachers and their students for free and surpasses previous concepts and functions of LMSs. It can also be utilized by teachers and students in junior and senior high schools in Japan if each of them can utilize some types of terminals such as laptop computers and tablets with internet access.

4. Advantages of LMSs for Language Learning and Activities

4.1 English Speeches/Presentations

4.1.1 Oral Performances

Modern devices such as smartphones, tablets, and computers equipped with cameras enable students to record their own language performances such as speeches, presentations, and interactional conversations easily with less cost (time, labor, and money). Students can make English speeches/presentations in a virtual classroom not only on time through video conference systems through the Internet, but also on demand by uploading video recordings onto LMSs. Both of them are expected to have different educational significance: speeches/presentations on time will bring to the students real experiences in front of people or a video camera with conditions of no redoing; uploading video recordings of speeches/presentations onto LMSs will enable and recommend the students to redo speeches/presentations if they

cannot complete them satisfactorily; and video recordings relieve them of the tension of performing in front of other classmates. Fujii et al. (2008, 2009) reported similar effects of self-recording audios of speeches and uploading them onto the LMS. Uploading video recordings of speeches/presentations onto the LMS will enable the speakers/presenters to watch and listen to their own video recordings with other students objectively, which provides them with precious feedback. Recording speeches/presentations using a video camera at home as homework and showing them in in-person classes are doable so far, but uploading video recordings of speeches/presentations onto the LMS reduces labor costs.

4.1.2 Paperless Peer Feedback and Evaluation

All the students listening to their peers' speeches/presentations can give them feedback on the LMS by typing or talking on automatic speech recognition systems in their L1 or English. Both the presenters and their classmates can read and share each other's feedback on the LMS immediately and whenever they wish to do so. Peer feedback for English speeches/presentations has often been conducted in in-person classes and is not a new activity, but it has been costing time and labor to collect comment papers on which peers write their responses and advice and, then, pass them to all the classmates as well as the presenters. Learning management systems make peer feedback activities more efficient with much less time and labor cost. Furthermore, teachers can also read and evaluate their students' peer feedback by giving them scores. In cases where teachers place high value on shorter but immediate feedback to speakers/presenters, the "Chat" function on video conference systems can be utilized.

Whenever the teacher finds any grammatical, lexical, pronunciation, and/or other types of mistakes in students' speeches/presentations, he/she can push the "stop" button for their video recordings immediately and give them the appropriate feedback together with other classmates on the spot without interfering with their speeches/presentations.

The above changes brought about by LMSs also apply to the cases of peer evaluation activities in the same way. As for peer evaluation activities, LMSs enable evaluators' names to be unopen if the teacher thinks this would be preferable in certain cases.

4.2 English Sentence(s)/Compositions/Essays

4.2.1 Productions

Students can write English sentence(s)/compositions/essays in a virtual classroom not only on time but also after school by typing on keyboards or screens and then uploading them onto the LMS. As of 2020, voice input systems, which users can utilize easily for free, work efficiently; therefore, students can create sentence(s)/compositions/essays not by writing or typing but by orally speaking into voice input systems and then editing their production written

by the voice input systems. Utilizing voice input systems enables students to create a larger amount of compositions/essays in less time and with less labor. Such systems may be bringing about new and different concepts for writing using hand-writing/typing and giving room for discussion on whether voice input systems are forbidden for the writing task or not. Since an increasing number of people use voice input systems when directing to and/or searching for something on smart-phones, the ability to create sentence(s)/compositions/essays by both typing and voice input systems is yet to be developed. Needless to say, novice English learners such as students in elementary and junior high schools must still acquire the skill to write words and sentence(s) by hand because it is still a necessary skill in society.

4.2.2 Collaborative Document Editing

When students are having discussions in groups through Zoom's Breakout Sessions and collaboratively report on their conclusions, collaborative document editing functions in Google Docs are useful. This enables multiple students in a group to write sentences, accumulate writings, and edit them in cooperation. If students utilize voice input systems during the discussion in L2, their L2 utterances are automatically transcribed as records. Their teacher can easily and visually check how well their discussions in each group were conducted through the Google documents uploaded onto the LMS by the students.

4.2.3 Paperless Peer Feedback and Peer Evaluations

Similar to Section 4.1.2, students can easily and at any time read sentence(s)/compositions/essays created by other classmates by seeing and reading the screen of the LMS with little involvement of the teacher, such as collecting paper sheets, organizing and binding them, and passing them on to the students. Students, as well as teachers, can easily and at any time give peer feedback or responses on their classmates' sentence(s)/compositions/essays on the LMS. Teachers can read and evaluate their students' peer feedback.

4.3 Flipped Teaching

Teachers can easily distribute materials for reading, listening, writing, and speaking at any time; therefore, the flipped classroom can be done at a lower cost if teachers give some tasks to the students with proper directions as preparation before each lesson. When students hold discussions with their classmates on specific topics, teachers can easily distribute any reading materials and also designate any reading articles or video websites such as YouTube on the Internet with the link of that webpage as preparation/homework. Then, more time can be spent on oral discussions, saving time for reading and understanding that topic deliberately. As of September 2020, teachers cannot divide their students into groups for language activities in Google's Meet, the video conference systems that the G Suite for Education offers, although

they can do so in Zoom Video Communications (this function is called as “Breakout Sessions”). Zoom is recommended for use when students work in pairs and/or in groups.

4.4 Aids from Modern Technology and/or AI

4.4.1 AI Reading Aloud

Text to Speech for Google ChromeTM and Microsoft Word pronounce English sentences in the accent of the U.S.A., U.K., Canada, Australia, or other regions. When students read their materials, they can follow the reading aloud of AI and learn how to pronounce the words, although AI intonation still needs to be improved as of September 2020. Reading aloud using AI also helps the students to practice listening.

4.4.2 Evaluating Intelligibility of Pronunciation

Google’s Doc includes a voice input system. Students utter to it and see whether their utterances are recognized accurately, which indicates that their pronunciations are intelligible or acceptable.

4.4.3 Machine Translation [MT]

Google Translate offers a machine translation system in which English can be translated into Japanese and vice versa immediately after sentences are put in. Students can utilize it when they read difficult or a large number of English sentences with less time to help them understand the content of the English sentences. Students can also utilize it when they write difficult or a large number of English sentences with less time and trouble to help them write the English sentences. The AI-assisted reading and writing may be controversial from the educational viewpoint, but it seems that the current trends for the students to make use of MT are irreversible. Utilizing both voice input systems in L1 and MT enables us to obtain L2 writings with little trouble by only orally uttering L1. Students can compare their L2 written productions with those produced by MT.

4.5 Other Useful Functions Not Specific to English Education

4.5.1. Paperless Short Quizzes

Utilizing Google Forms enables teachers to make paperless short quizzes, to conduct them with both multiple-choice questions and open-ended questions, and to collect the students’ answers and mark them with less labor.

4.5.2 Automatic Score Collection

Whenever teachers give scores on students’ work such as their oral performances, written work, peer feedback, and short quizzes, these scores will be automatically recorded and can be seen on Google’s spreadsheet. These scores can also be reported to the students through the LMS or e-mail with minimal effort. Teachers can save time because LMSs automatically report

their scores to the students, keep their records, accumulate them, and organize them.

5. Concluding Remarks

This paper (1) described the educational situation of the first half of the 2020 academic year in Japan, where most lecturers in universities throughout Japan utilized LMSs and video conference systems when the universities were forced to start online classes, and (2) proposed methods or ideas on how to conduct language activities using LMSs that are available for both online classes and in-building classes in junior/senior high schools and universities. The advantages of LMSs, which are described above, are considered to be applicable to in-building English classes with ICT as "blended classes." Effective blended classes where teachers make use of LMSs in in-building classes are expected to become popular after the COVID-19 pandemic. Empirical studies that examine the educational effects of language activities using LMSs should be conducted with an experimental research design in the future.

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