

IN-CLASS OR ONLINE? INVESTIGATING STUDENT PERCEPTIONS OF ASYNCHRONOUS ONLINE LESSONS

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ABSTRACT

Online options in higher education have expanded at an increasing rate over the last 10 years, from entirely online courses, to hybrid courses, to the greater prevalence of online components in traditional in-person courses. This growing trend will increase opportunities for non-traditional students to meet their educational needs (Nakamura, 2017), but at what cost to the quality of that education? How can institutions transition or modify materials to online settings, possibly toward a hybridized environment? In an effort to determine the efficacy of entirely online lessons vs. in-person lessons in the language-teaching field, this study gathered information from approximately 180 learners in a language-focused university in Japan about their perceptions of language learning in both online & traditional settings. The study aimed to establish whether online, asynchronous versions of core curricula, integrated with in-person lessons, could offer comparable educational value. The findings suggest that although online lessons were viewed mostly positively overall, they were not deemed as valuable as the traditional in-class format. Increasing opportunities to interact in an online language learning environment seems to be an important consideration.

INTRODUCTION

Whilst online education and course offerings have become a ubiquitous feature of the modern educational landscape, the efficacy of online learning is still heavily debated. In the context of this language-focused international university in Japan, which focuses on communication and global issues, limited research into online learning has been conducted previously (Mynard & Murphy, 2012). However, currently, online educational components and online courses are yet to be implemented into the core curriculum. Although the flexibility afforded by online learning offers many benefits, an important one being improved access to educational opportunities for non-traditional students, one of the major drawbacks is the lack of face-to face interaction. Recognizing the latter, and given the institutional context, this study was a pilot intended to investigate suitable instruments and methods for conducting online lessons. In this paper, quantitative data is utilized to determine whether online lessons are able to offer comparable value to the classroom-based instruction that is typically offered.

LITERATURE REVIEW

In this study, students' perceptions of the value of online lessons is evaluated. Typically, the bulk of literature on EFL or ESL distance learning focuses on the topics of lesson and task design, curriculum design, evaluative frameworks, and levels/styles of technological incorporation (Swan, 2015; Li, 2015; Lin & Warschauer, 2015). Similar research, albeit with different variables of yearlong to single-lesson studies, variables of in-person, hybridized, or entirely distance courses, and variables of lesson type and student population, has found comparable results regarding student perceptions of online learning (Murday, Ushida & Chenoweth, 2008; de Freitas, Morgan & Gibson, 2015).

While the higher education landscape in Japan is changing, current guidelines from Japan's Ministry of Education, Culture, Sports, Science and Technology do not specify any national goals for distance learning development (MEXT, 2008). As noted in other research, Japan's educational system places a high value on in-classroom learning, and this education is highly standardized and measured by the ministry (MEXT, 2008; Nakamura, 2017). However, this means that online distance learning programs in Japan's higher education are "niche," and employ faculty and structures that take into account the "unique cultural constraints" of the environment (Nakamura, 2017). Entirely online distance learning programs in Japan have experienced slow uptake and high dropout rates, compared to other countries (Mynard & Murphy, 2012). There is a sentiment, especially in light of recent global events, that institutions could benefit from a pedagogical shift to incorporate more of the technology for which Japan is so famous, in a way that fulfils student expectations.

One of these Japanese universities, Kanda University of International Studies (KUIS) is typical of Japan in the regard that the traditions, ministry requirements, research efforts, and student expectations have combined to make all curricula based on in-person lessons, though technology has been incorporated into lessons in a teacher-led, non-institutional way (Mynard & Murphy, 2012). Incorporating technology into lessons can be called "blended learning," in which online components such as forums are used during in-person lesson time, and independently (asynchronously, within a timeframe) by students. At this university, research into student perceptions of an "experimental day" of 100% online tasks indicated that students found the online components both convenient and useful, but were most concerned with technology issues inhibiting their experience (Mynard & Murphy, 2012). The current study aims to provide details of student perceptions in a similarly online "experimental day", within the framework of in-person lessons at the same university. The convenience and time-saving qualities of a blended approach were also positively reviewed by students in more longitudinal studies, and also when evaluating hybridized courses (where a structured amount of course time is online/at distance) (Murday, Ushida & Chenoweth, 2008).

The design of the online lessons, or "modules" used in this study was reflective of many educational and distance-learning design principles that credit interaction with great sociolinguistic power to help students learn (Atkinson et al., 2007; Li, 2015). Considering the benefits to incorporating interactive elements to the lessons, researchers designed the online "experimental days" to be largely imitative of what would have been taught face to face. While 1-1 replacement of in-person class elements was not the goal of this research, nor perhaps should it be (Li, 2015), designing the online lesson to resemble an in-person lesson was intentional for this study.

In contrast, MOOCs, or entirely-online courses with large numbers of attendees, have even less possibility for peer interaction than their smaller cousins, online distance learning courses. However, it has been shown that even low-interactivity MOOC students with high motivation to learn the material, and high engagement with the content, can perceive the online environment extremely positively and feel the instruction is valuable (de Freitas, Morgan & Gibson, 2015).

Further areas for study include measuring the academic achievements of students in various online environments (blended, hybridized, entirely distance) with various ESL/EFL learning targets (speaking, writing, etc.), and with various degrees of online lesson components (T-S lecture time, S-S written forums, S-S video discussions, etc.) to determine guidelines for a pedagogical approach for a multitude of online-education situations. In addition, the emotional experiences of students, as measured by Bollinger (2017), may have an as yet greater impact on both student perceptions of the course and academic achievement, and deserves to be studied.

In the face of technological transience exemplified by Moore's Law, which states that computer processing power roughly doubles for a set price every year (Moore, 1965), educational measures employing computer technology today may, and should, be re-evaluated within 5 years (Swan, 2015). Administrations need to keep teaching practices innovative, respond quickly to changes, and avoid redundancy, while constantly responding to evolving student needs (Bates, 1999). This is even more relevant as the effects of the global coronavirus pandemic unfold in the educational sphere, and all levels of academia consider the best practices and modifications of their approaches.

METHODOLOGY

This study aimed to ascertain whether online courses could offer comparable value to traditional classroom-based instruction in the context of an international university. The seven researchers involved in the study created online versions of lessons from the core course curricula at a four-year language university in Japan. They piloted them with two sections of the core courses, introducing the online lessons to 14 classes overall and approximately 180 students. The Learning Management System (LMS), Canvas, was used, but as this LMS was new to the researchers and students, some researchers chose to include an orientation lesson or activity as well. These lessons were then integrated into the course curriculum, preceded and followed by traditional, in-class lessons. This resulted in, as mentioned earlier, each group of students having an "experimental day" during which 100% of the class activities were offered online, through Canvas.

Online modules created by researchers in this study were designed to:

1. Achieve desired student learning outcomes within the pacing of the in-person course
2. Incorporate various types of tasks such as listening, analysis, writing, and collaborative discussion
3. Take approximately 90 minutes of students' time

Hoping to preserve some of the interactivity possible in a face-to-face lesson, teachers incorporated collaborative and peer-peer response tasks into their modules, although the studies on fostering interaction in an online environment have “only touched the surface of interaction” (Li, 2015). Analysis and comparison of interactive tasks in online learning environments is complex and multifaceted, but many studies reveal a high value placed on interactivity by both teachers and students.

The researchers employed a quasi-experimental, within-subjects design with two conditions. The instrument, a survey, did not include items focusing on lesson content; rather it focused on the structure, delivery, and usefulness of the lesson. Accordingly, in-class lessons used the same processes as the online lessons, but with different content. A mixed-methods research design was implemented to collect information about the lessons. Participants were asked to evaluate the online lesson and an in-class lesson by completing surveys. Surveys were administered at two different points: following the online lesson, and following a traditional, in-class lesson. The order in which the lessons were delivered was randomized for participant groups. As a counterbalancing measure, half of the participants first evaluated an online lesson. Following a rest period of at least a week, they then evaluated an in-class lesson. The other half did the opposite, first evaluating an in-class lesson, then evaluating the online lesson. The data were used to answer the following research questions:

- Does online learning receive similar value judgments from participants concerning class instruction?
- Does online learning promote self-regulated learning, engagement, and motivation?
- Does an online format provide adequate opportunities for language input and production?

ANALYSIS

Incomplete and duplicate responses were removed from the data before analysis. Additionally, due to participant attrition, some participants only contributed one survey response; these responses were also removed from the data. Once this process was completed, a total data set of 124 participants remained for analysis. Due to the counterbalanced, within-subjects design of the study, a repeated measures analysis of variance (rANOVA) was used to analyze the data.

Perceptions of skill usage

Participants were required to answer the question “During the lesson, how much, in terms of percentage, did you use each of the following language skills?” and indicated their perception of the degree to which speaking, listening, reading, and writing were used for each lesson by inputting a percentage value.

The results rating student perceptions of a difference in the use of skills between online class conditions and in class conditions were statistically significant for speaking, $F(1, 123) = 123.29, p < 0.001$, reading, $F(1, 123) = 9.30, p = 0.003$, and writing, $F(1, 123) = 77.04, p < 0.001$.

The differences between groups with regards to listening were not statistically significant, with mean values differing only slightly. Refer to Table 1 for a summary of mean and standard deviation.

Table 1. Descriptive statistics of participant perceptions of language skills use.

Skill	Condition	N	Mean	SD
Speaking	In-class	124	32.94	20.86
	Online	124	9.15	12.08
Listening	In-class	124	28.98	19.51
	Online	124	25.16	27.30
Reading	In-class	124	19.36	16.44
	Online	124	27.35	24.33
Writing	In-class	124	18.52	18.09
	Online	124	38.49	25.18

* $p < .05$

These results indicate that in the traditional in-class lesson participants felt they used their speaking skill more than in the online class. Conversely, participants in the online class felt that they used their reading and writing skills to a greater degree.

Interaction

Additionally, analysis was carried out to compare the levels of interaction between participants and with the classroom instructor. Predictably, for the in-class lesson participants reported significantly more interaction with peers ($M = 3.57, SD = 0.86$) than in the online class ($M = 2.21, SD = 1.68$); $F(1, 123) = 71.35, p < 0.001$. Likewise, participants reported significantly more interaction with a teacher in the in-class lesson ($M = 1.86, SD = 1.35$) than in the online version ($M = 0.60, SD = 1.13$); $F(1, 123) = 83.10, p < 0.001$.

Within the constraints of the online lesson format adapted for this study the modes of interaction were different. While this is a somewhat unsurprising result, it is important as it may be the underlying cause for the significant differences observed in participants' evaluative responses to the lessons.

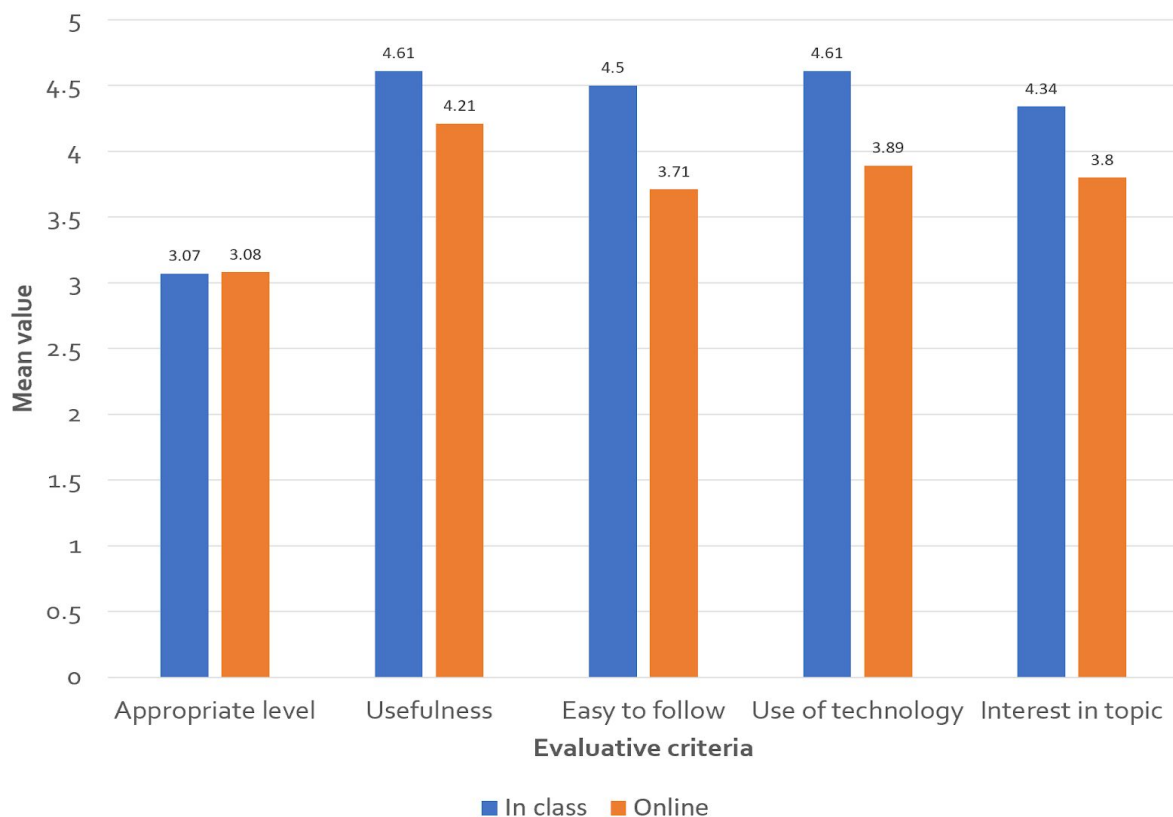
Evaluative items

Evaluative data were collected using five different rating questions. Using IBM's SPSS software, a rANOVA was run to compare the mean values for the online and in class student conditions. The rANOVA was also conducted on the aggregate values for the entire condition and on each individual question. There was no significant difference in the overall student perceptions of the level appropriateness of the in-class lesson ($M=3.06, SD=1.23$) and the online lesson ($M = 3.08, SD = 1.42$) conditions; $F(1, 123) = 0.012, p = 0.026$. There

was a significant difference for perceptions of the usefulness of the in-class lesson ($M = 4.61, SD = 1.06$) and the online lesson ($M = 4.22, SD = 1.20$) conditions; $F(1, 123) = 13.64, p < 0.001$. For the item asking for student perceptions of whether the lesson was easy to follow, the in-class ($M = 4.50, SD = 1.22$) and online ($M = 3.77, SD = 1.40$) were also significant; $F(1, 119) = 32.65, p < 0.001$. Also, statistical significance was found for student perceptions of the teacher's use of technology as part of the in-class ($M = 4.61, SD = 1.06$) and online ($M = 3.89, SD = 1.45$) conditions; $F(1, 123) = 25.26, p < 0.001$. Finally, participant indications of level of interest in the topic in the in-class ($M = 4.34, SD = 1.08$) and online ($M = 3.80, SD = 1.21$) conditions were also significant; $F(1, 123) = 21.18, p < 0.001$.

These results suggest that for all items, participants were significantly more positive in their evaluations of the in-class condition. This also includes the item evaluating the use of technology, which was used more heavily in the online version of the lesson. Whilst significant for each item except the level of the lesson, examination of the mean values for each evaluative item shows that the averages for all items is within one point (see Fig. 1).

Fig. 1. Comparison of mean values of evaluative items



This general trend suggests that while participants were more critical of the online version of the lessons, they still remained generally positive about even these lessons.

DISCUSSION

The results bring to light some interesting patterns of the learners' perceptions of online classes. This section will explore the results further by addressing the research questions posed. The limitations of the study will also be evaluated.

Research Questions

Does online learning receive similar value judgement from participants concerning class instruction?

The results from this study show there is a clear preference for in-class lessons over online classes. This predilection could stem from the models of education learners have previously been exposed to; as mentioned earlier, there is an inordinate value placed on in-class lessons (MEXT, 2008; Nakamura, 2017). As learners have only previously had exposure to physical classes, taking part in a one-off online lesson was regarded as a negative that did not follow the communicative blended-learning model KUIS adheres to. In all of the evaluative items the online lesson scored less, showing the learners' perception of this lesson being less valuable. It should be noted that the learners found the online and in-class materials were equivalent in their difficulties, meaning that level was not a confounding variable in the results.

Does online learning promote engagement and motivation?

As noted by prior studies, students that already possess a high level of motivation and engagement in the topic tend to have a more positive experience during online lessons (de Freitas, Morgan & Gibson, 2015). The data collected for this study found that learners viewed the online lesson to be less useful and had less interest in the topic than that of the in-class lessons. This could suggest that the learners' motivation decreased during the online lesson. There may be a correlation between the more negative perspective of the online lesson and the lack of engagement indicated by the learners. The data shows that within the in-class lessons, peer-to-peer and teacher-to-learner interaction is higher than that of the online lesson. This is not an unexpected result as it is difficult for an online lesson to incorporate peer interaction, as lesson designs for online classes tend to be asynchronous. Within the in-class lesson, learners have the ability to collaborate and contribute to each other's learning growth, which they may otherwise not be able to reach alone (Wells, 1999).

Does an online format provide adequate opportunities for language input and production?

The data showed that learners perceived an imbalance for the language input and production related to the online lessons. Inherently, asynchronous online lessons usually lack the ability to support speaking skills and tend to focus on reading, writing, and listening. The results from this study echo this pattern. During the in-class lessons, the learners indicated that each of the language skills were utilized nearly equally. This could be because of the communicative nature of the classes at KUIS and the courses that were selected for this study. In contrast, speaking production during the online lesson fell below ten percent. This could demonstrate the lack of a coherent framework for online classes to incorporate interactive distance learning (Li, 2015). This was also a consequence of the educational platform selected to conduct these lessons (the free version of Canvas), which did not have a built-in video message feature that could have led to more spoken language output.

Limitations

It is necessary to identify the limitations of this study in order to evaluate its conclusions. Firstly, one of the key limitations is the institutional environment itself. KUIS has a high

level of engagement with peer-to-peer and teacher-to-learner interactions during classroom lessons. Learners have become accustomed to this teaching approach. This study explored a micro-level, social phenomena taking place within a single context (Punch, 2014). As noted earlier, this was a one-off online experience for the students with no recurrence, essentially a novelty. This educational change was unfamiliar in both its delivery and platform. This could have accounted for some of the negative perceptions of the online lessons. Furthermore, learners' ability to utilize technology effectively with regards to topics such as familiar learning platforms, stable Wi-Fi connections and uniform lesson models, was not included in this study. These factors could have drastically altered the learners' experiences and perceptions of the online lesson. Therefore, the findings should not be generalized to a larger student population or a different contextual environment.

CONCLUSION

Although the language education context in Japan has mostly shown limited interest in the possibilities of online asynchronous instruction in the past, this may be likely to change in the post-pandemic future. Determining how to craft online classes which satisfy learner needs is becoming more relevant to university administrations, course designers and educators alike, and the perceptions of students to the online medium is central to this appraisal. This study has measured students' impressions of the skills used, the amount of interaction undertaken, and their perceived value judgements regarding online lessons. Overall, the results showed that online classes were viewed less positively by students than traditional in-class lessons, and that interaction and a spoken component were understandably more limited. Many studies have demonstrated that interactivity is highly valued in an entirely online context by both students and teachers (Bollinger, 2017; Li, 2015; de Freitas, Morgan & Gibson, 2015; Wells, 1999). Although, students might still evaluate their learning positively in a non-language online course in which little interactivity occurs (de Freitas, Morgan & Gibson, 2015), in the field of language learning for communication, interactivity appears to be an essential variable to a positive value judgment from students. Creating as many opportunities as possible for students to interact both peer-to-peer and with teachers in the online environment seems to be advisable. Fortunately, the recent rapid development of online tools like cloud-based video conferencing and multimodal social learning platforms make the inclusion of such interactive class components easily attainable in many learning contexts.

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