

Loom を用いた非同期型オンライン授業 —Engagement Insights のデータ分析—

Analysing Loom ‘Engagement Insights’ Data for Asynchronous Online Classes

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Abstract

Loom is a video sharing platform that allows users to record their own videos using one of three methods: screen with audio only, screen and camera, and camera only. During the 2020~21 academic school year in Japan, Loom was used to complement asynchronous online classes that were held in response to the global pandemic. Videos were created by the instructor of four English Communication classes (n=101) to further explain, give examples, and reinforce instructions for online activities that had been uploaded to the institution’s LMS or involved other online tools. This paper will investigate the data provided by Loom through its ‘Engagement Insights’ in order to assess how many students made use of the videos and the average percentage of the videos that were viewed.

Keywords

CALL, online learning, asynchronous learning, on-demand classes, student engagement, Loom

Introduction

Computer-assisted Language Learning (CALL) is a well-established approach to teaching and learning languages. However, during 2020-21 when the pandemic necessitated classes move online, its affordances were truly brought to the forefront. Indeed, nearly three hundred million students worldwide had their academic studies interrupted (Afrin, 2020). Institutions and instructors scrambled to establish online lessons (Afrin, 2020) and searched for tools that would complement already in-situ LMS platforms to best meet the needs of their students and classes. Furthermore, not all classes were simply able to move to live online meetings using the ubiquitous Zoom or Google Meet. Indeed, for a variety of reasons asynchronous or otherwise known as ‘on-

demand' classes were necessary in some cases. In these situations, class content was uploaded and made available for students to complete, but no live in-time class gatherings were held.

This study investigates such a case for four first year Communication classes in Japan. It will explain how an instructor used Loom software to make short support videos to explain and reinforce class material. Then, it will report on the video engagement data that Loom provides the video owner. In particular, it will look at how many unique users viewed the videos compared with complete views, and the average percentage of the videos viewed by those that watched the videos. Finally, it will look at the implications of this data and what it may tell us about student engagement during on-demand classes.

Background

CALL

There are now many powerful and convenient tools available for teachers to utilise in the language learning classroom, many of which have also proven popular with students. Of particular note is Google Drive and its suite of applications, which have now become commonly employed platforms either on their own or in collaboration with other materials and computer-mediated recourses. Indeed, Perez and Jolley (2020) found that students reported satisfaction with activities based on computer-viewed TED talks and associated writing tasks that centered around Google Drive and Google Docs. Jolley (2019) also reported that students preferred online collaborative writing using Google Docs when compared with more similar writing tasks using Microsoft Word. In particular, students found feedback given via comments on the Google Doc easier to understand than written feedback on a hard copy of a Word document as they had experienced in the past. Google Classroom also became a popular option for institutions during the pandemic in order to effectively offer online classes and allow students and teachers to manage classwork (Afrin, 2020).

However, prior to 2020 many computer-mediated activities were implemented based on an already existing understanding about the delivery method for each class. In Japan, where classes are rarely offered online, this usually meant that CALL based materials were implemented to

complement regular face-to-face meetings between the students and instructor. This changed when many institutions were forced to pivot to online instruction in the wake of the COVID-19 pandemic. This offered instructors new and unique challenges in regards to meeting student needs, which was especially pertinent where classes could only be offered asynchronously, otherwise known as on-demand classes.

Asynchronous online classes

One challenge that sudden asynchronous online classes posed for instructors during the 2020-21 academic year in Japan was what is known as transactional distance (Moore, 1993; Holbeck & Hartman, 2018). This means that rapport between instructor and students becomes difficult to attain and that students have difficulty realising the teacher as a ‘real entity’, causing feelings of isolation and frustration (Holbeck & Hartman, 2018; Laster-Loftus & Cooper 2019). Unfortunately, with the move to online classes for some or most of the Japanese academic year in 2020-21, this was indeed particularly pertinent to the first-year students who experienced asynchronous online classes throughout their freshman year, such as the ones in this study. Having never met fellow classmates nor their instructors face-to-face, the distance between instructor and materials was an obstacle that required addressing.

One method that has been employed by instructors who have experience teaching online asynchronously is the use of online tools that help to bridge the transactional distance between instructors and their students. Indeed, Holbeck and Hartman (2018) outline how a variety of technology, such as Loom, Flipgrid, Digital Breakout/ Escape Room, and Remind, can increase the feeling of teacher presence in online classrooms and foster rapport with students as well as build their confidence. Furthermore, Laster-Loftus and Cooper (2019) posit that instructor presence in the way of voice instructions can have a positive impact on student outcomes. Indeed, they report that online students provided with instructional videos alongside written directions for activities and assignments achieved higher grades than those that didn't. However, they also explain that no

significant difference was found in their analysis between the groups and further investigation is required.

In this way, providing video and audio support materials alongside written instructions for activities and assignments allows instructors to establish an identity with students and helps to reinforce or explain things more clearly. Importantly, it also helps to address a wider variety of learner styles which is particularly crucial when responding effectively to student needs.

However, despite these obstacles faced by instructors of asynchronous online classes, language students themselves have reported positive aspects to this style of learning. Afrin (2020) explains that students felt a decrease in pressure and claimed that it allowed them greater time to focus on studies according to their own schedules, which benefitted their learning.

Loom

Loom (www.loom.com) is an online video sharing tool that can be downloaded and used from the desktop of a computer or added as a Google Chrome extension. Users can easily share videos by copying a unique URL for any video they create. Videos are stored in the owner's workspace on the Loom site and only viewable by those with the associated URL or those that have been invited to join the workspace.

Loom offers a variety of packages ranging from the free starter pack that allows for limited video creation to paid for packages with a higher range of affordances and analytics for the owner.

Importantly, as Holbeck and Hartman (2018) point out, amongst other data, Loom tracks views, which can provide instructors with information about student viewership and engagement with the videos in asynchronous class situations. This is available to users employing any level of package available. However, for paid for subscriptions, Loom also supplies data regarding how many unique viewers watch the video compared with the total number of views, as well as the average completion rate based on the total number of unique viewers. Loom labels this data as 'Engagement Insights'. However, it should be noted that analytics for average viewing length is not recorded by Loom when viewers have used their iOS application. Viewers are also able to engage

with the video depending on the owner's settings by adding emoticons throughout the video and leaving comments. Owners can also allow for videos to be downloaded by adjusting the settings for individual videos.

For instructors, Loom offers a variety of options in regards to content creation. Using the Loom settings, instructors can record their computer desktop along with the PC camera or audio only at the same time. Thus, providing instructors with an easy method to audibly and visually annotate slides and other materials. Furthermore, it is possible to record using the camera only settings, which offers a way to provide messages and feedback to individuals or the whole class during asynchronous learning. This is important when we consider that Laster-Loftus and Cooper (2019) cite students find video and/or audio feedback convenient, easily comprehensible, and helps them to retain information better after viewing videos.

Furthermore, little research regarding the use of Loom and the analytics they provide can be found. Therefore, this study looks to initiate what the data may be able to tell us regarding student engagement during asynchronous learning.

Methodology

Four first year English Communication classes at a university in Kobe, Japan took asynchronous online classes due to the COVID-19 pandemic during their freshman year of 2020-21. Prior to the pandemic all classes at the university had been on campus and face-to-face. All classes were science or technology majors taking compulsory English courses during their first year, with the same classes to continue into their second year. Due to the pandemic, all English classes during 2020-21 were delivered asynchronously for these classes. There were various reasons for this, but importantly, a variety of scheduling options for practical classes related to class specialties were being considered, and thus, may have required student time in class or commuting during other previously scheduled class times.

The institution LMS, very similar to Blackboard, was used to upload weekly activities and assignments. Email was also used to communicate privately between the students and the

instructor. Loom was used throughout the second semester (14 weeks) by the instructor and students, both with and without the camera. However, this study analyses 11 Loom videos that were created by the instructor and shared with the students by pasting the URL to the weekly class content. The videos aimed to support the written instructions on other activities and further foster a rapport with students. There were occasions where separate videos were made for particular classes, however only the data for videos that were shared amongst all four classes has been analysed. The Loom videos contained in this analysis are all recorded PowerPoint slides with a voice over by the instructor. The PowerPoint and annotated spoken details were used to complement the written instructions on other activities on the LMS. The ten weekly videos in this study contained a variety of information, such as:

- details to further explain written instructions on activities
- examples for students to model
- deadlines and reminders about deadlines
- information about groups and pairs
- grading information
- feedback and advice

There was also one instructional video that showed students how to complete a task and upload an audio file to the class LMS.

Using the Engagement Insights analytics, which is available with the Loom Business package, each of these videos were analysed for:

- the total number of views
- unique viewers
- average percentage of the video viewed
- reactions from students

However, it should be noted that there is no available data for two videos regarding the average amount of those videos that were viewed because those analytics were not available at the time. Furthermore, unless viewers were signed in to their Loom account when watching a video, they were recorded as 'anonymous', as is the case with a majority of the data analysed here. Loom is able to recognize the same anonymous account on separate occasions and report that as one unique

viewer. However, no identifying information is given about the anonymous users in the Engagement Insights, making it impossible to guarantee that the same anonymous user was not recorded multiple times as a different unique viewer.

Results

Table 1 displays the data provided by Loom regarding the total number of views for each video, how many unique viewers there were, the average percentage viewed of the total video by each unique viewer not using the iOS Loom application, and if any reactions, either emoticons or comments, were recorded.

Table 1: Views, unique views, average percentage viewed, reactions

	Views	Unique Viewers	% Viewed	Reactions
Week 1	143	116	Not available	0
Week 3	81	78	Not available	0
Definition Recording Instructions	152	109	75% (29 of 109 viewers)	0
Week 5	165	130	69% (120 of 130 viewers)	0
Week 7	112	84	79% (81 of 84 viewers)	0
Week 8	125	86	74% (84 of 86 viewers)	0
Week 9	179	112	71% (110 of 112 viewers)	6
Week 10	221	119	75% (118 of 119 viewers)	41
Week 11	118	93	78% (91 of 93 viewers)	3
Week 12	173	111	68% (110 of 111 viewers)	0
Week 13	133	99	57% (98 of 99 viewers)	4

With the total number of views being higher than the number of unique viewers, Table 1 indicates that students engaged with the videos on multiple occasions. However, with the number of unique viewers being fewer than the total number of students (n=101) for some videos, it indicates that not all students utilised the videos. Furthermore, as most viewers were not logged in to their personal Loom accounts they were recorded as anonymous. Loom is capable of recognizing the same anonymous account on separate occasions, but there is no identifying information recorded. Therefore, it is impossible to say how many anonymous accounts were the same viewer on a different device, logged-in with a different account, or simply recorded as another anonymous

viewer for other reasons. This also explains why on some occasions the number of unique viewers is also higher than the cohort size, making it difficult to ascertain exactly how many videos were viewed multiple times on separate occasions by the same individuals.

Table 1 also displays that on average viewers watched a majority of each video. Multiple views by individuals targeting only necessary information could have affected the recorded total percentage viewed of each video, reducing the overall average. However, the Loom analytics still indicate that a large portion of the videos were usually viewed despite this possibility.

Students mostly did not utilise the reaction tools, with one anomaly occurring during week 10 during a section of video outlining a major final presentation assignment. These emoticon reactions came in quick succession by the same user and it is theorised that it may have been in reaction to the assignment or simply an accident or experimentation. All other recorded reactions were also emoticons.

Overall, the total number of views seems to indicate that the Loom videos were useful for a large percentage of the students.

Table 2: The average views, unique viewers, and percentage viewed

	Views	Unique Viewers	% Viewed
Mean	146	103	72%

Table 2 shows that on average there were 103 unique viewers, which is higher than the total number of students given access to the videos. This suggests that at least some students who did view the videos watched at least part of the videos on multiple occasions, as is also suggested by the average number of views. The average length of the videos viewed was 72%, indicating that even with multiple views, students were still watching a majority of the video.

Discussion

The analytics offered by Loom for paid packages can give us some insight into how students engage with online content during online asynchronous classes. The findings in this paper suggest that students viewed the videos multiple times, indicating that they found the content useful and

complementary to written instructions. This is further reinforced by the fact that on average a majority of the videos were viewed, even when multiple viewings are taken into consideration. Though reactions were available to students, few utilized them. Of those that did use the emoticons to react to the videos, all came towards the end of the semester. This indicates that students may not have felt comfortable doing so earlier in the semester. Furthermore, as the end of semester loomed important deadlines and assignments naturally increased. Therefore, reactions may indicate students' heightened sense of emotions as they neared the final hurdles of their semester. The classes in this study were also not asked to use the reaction tools, nor made aware of the reaction options. It is posited that highlighting these options could further help build rapport with students during on-demand learning.

Overall, results seem to indicate that Loom videos are an effective method for complementing asynchronous online course content. Furthermore, the analytics provided by Loom also offer teachers a practical way of understanding whether students are engaging with the videos as they hoped.

Limitations and future research

There were a variety of important limitations with this study. Firstly, as a majority of the viewers were recorded as anonymous, it is impossible to ascertain concrete data on exactly how many unique viewers there were for each video. Loom does have the ability to recognize multiple views by the same anonymous viewer as one unique viewer. However, as there is no identifying information recorded, it is impossible to say that an anonymous viewer was not recorded as a new anonymous viewer by watching the video from a new device or for other reasons.

Therefore, in future research it would be useful to instruct students to view from their account or limit viewership to only those logged-in to their account. This would not only result in more concrete findings, but allow for a mixed method approach where interviews could be conducted for a deeper understanding of how and why students found the videos useful or not. This would also be interesting when considering that Loom offers data on each unique viewer, such as dates and times of views, the percentage of the video viewed each time, and any reactions added.

Furthermore, results in this paper analyse the data provided by Loom. However, insights direct from students in the way of surveys and interviews, as mentioned above, would be beneficial in understanding exactly how the students felt about the Loom created content.

Finally, this paper looks at videos created for first year students only. Further investigation into different year levels would help to understand if all year levels result in similar levels of engagement. In particular, it would be interesting to see if the same levels are maintained over time and amongst students that had not unexpectedly started their tertiary academic careers online.

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