Online Teaching in the Great COVID Teaching Challenge: The Paperless Classroom Flourishes

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April 2012 was a noteworthy date. By my reckoning, all students carried a smartphone with them to class. At the time, roughly 80% were carrying an iPhone, and the rest had a device with an Android or other operating system. It was from their mobile device that students could access and download the document we teachers informally call the "First Day Print." I had set up each class on Moodle, directed students to the correct page, given them the key code, and instructed students to download the PDF version of that all-important first-day document. On the PDF were embedded URLs that students could access via their smartphone's touchscreens, links that would take them back to Moodle, to a YouTube video, to a PowerPoint to view from my website, or to a folder with documents hosted on Google Drive. If the students knew how to access that first-day print any time, and especially if they knew how to store it on their own device, they would always have it and could never claim not to know the rules of the class, the dates of assignments, and how their grades were calculated. From that month forward, my students never received assignments or submitted work in paper form again. For us, the paperless class had been born.

Over the next eight years, little by little, I converted original reading and listening comprehension activities into an online accessible form so that students could get them during class on their mobile devices. I found Moodle's quizmaker widgets rather limited in function, as well as underwhelming in appearance. It took some time to find a quizmaker that was reliable, easy to create with, and that provided a user-friendly interface that students would like. I experimented with various services that offered quizmakers over that period, first with ProProfs[1] Quizmaker, then with iSpring[2], until finally I discovered Bookwidgets[3]. By 2017, each class I taught offered students online access to activities inside or outside of class. Those activities were graded automatically and given instant feedback. Therefore, by the time students and faculty had to self-isolate in order to teach exclusively online, I had already amassed a large number of activities, ready to go.

What was missing, of course, was the glue that held together a ninety-minute class: the pairwork and the groupwork students must do, and the social interaction required with their teacher to achieve it. I confess I had never heard of Zoom until a month before we collectively began using it regularly. It wasn't on my radar simply because I had never needed it or any of its equivalents. Never before had it been permitted at our institution to entertain the idea that anything could regularly substitute for meeting a class in person. *Showing up and engaging students is what teachers are expected to do.* Suddenly, with the Coronavirus situation, it became necessary to create learning experiences that would more-or-less stand in for what constitutes teaching and learning.

Three styles of emergency remote teaching
After a great deal of hurried research into what qualified as "online teaching" prior to the COVID-19 pandemic, and after much discussion among Japanese university-based colleagues[4], it became clear that what teachers needed was to

make *emergency remote teaching* feasible. While online teaching was certainly the ideal that teachers could strive toward, online teaching *per se* was impossible in our situation; it was too daunting a task for me to redesign each of the eight courses (over ten koma) that I taught into anything that came near the ideal of the definition of *online teaching*. And so, like emergency room doctors facing a deluge of incoming patients, some sort of triage was necessary to prioritize how courses needed to be treated to ensure the best possible outcome for all. I prioritized my courses as follows:

a) Synchronous courses taught live, via Zoom
b) Synchronous courses taught via pre-recorded content & activities for student access
c) Asynchronous courses taught by activities accessible on-demand

Let me begin with (c). Since I had developed original material for several courses over a period of years, I was able to turn my 3rd and 4th year student elective courses (Advanced Topics in English and Global Issues) into on-demand courses by increasing the number of items in the activities they would have to complete weekly. In common teacher parlance, I "moodled out" the courses, careful that the number of activities students did amounted to a substantial amount of time, and that the assigned homework constituted at least three hours per week, in accordance with its syllabus. Students received scores for each activity they completed, and their final grade was based on the total percentage of points they received. There were no extra quizzes, tests, or reports assigned. For the sake of students busy with job hunting or teaching practice, I thought it best to keep the course as simple as possible.

I opted to offer two courses in style (b), which were both American culture content classes. One focused on movies and American culture for second year

students for the Department of British and American Studies, and another was an introduction to contemporary American society for second year students from all departments, as part of the World Liberal Arts Program. The latter has been a challenging course in past years because of its large size (100 students) and their mixed levels of English comprehension. For both of these courses, I challenged myself to produce at least one video per week of my class lecture so that students would feel a teacher connection of sorts. Additionally, I hoped to begin building a library of videos, so that I could recycle them in future courses. It seemed obvious to me when the university made the commitment to remote emergency teaching that it would be the start of offering future courses via online learning. In total, I completed 14 videos, varying between 10 to 45 minutes in length; 5 were for the movies & American culture class, and 9 were for contemporary American society class. (Two of 14 were taken down after students viewed them and replaced with improved, edited versions that satisfied YouTube's somewhat stringent criteria.)

Video creation

It's not difficult to make a video and have students watch it. The absolute simplest videos sufficient for student viewing entail a slideshow and an accompanying voice track from the teacher. PowerPoint and Keynote both have the tools to create this sort of video – a teacher needs only a decent microphone for voice recording. Another simple style of video can be made by live-streaming a lecture into a YouTube video and, rather than post it publicly, set it to private mode. Once recorded, a teacher can upload it as it is, or edit it using YouTube's native edit tools[5]. A third method of creating a video for students is to record it as a Zoom or Google Meet session, and show a slideshow presentation, as if presenting it live to students[6]. These are fast, easy and cheap production methods.

A next-level approach is to create videos with a screen recording tool like

Techsmith's *Camtasia*[7]. Camtasia software includes useful functions like zooming and panning, cursor effects, annotations, highlighting, and web camera capture. These functions can give a video a polished result that can't be attained simply with presentation software. With Powerpoint, you can embed an entertaining GIF file to amuse students, but Camtasia's functions draw attention for instructional value, not for fun.

YouTube creators will extol the virtues of a quality microphone, and not without good reason. Students need to hear what teachers say clearly, and in a manner that doesn't hurt their ears. Although the quality of low-priced headset microphones and mics built-in to computers has improved tremendously just in the past five years, they can produce a tinny or hollow quality for the listener. USB microphones, on the other hand, produce a full-bodied sound with dynamic range, and they are reasonably-priced. Teachers should get the best mic they can afford.

As for web camera, I chose to use the one built into my iMac. I know of other teachers in Japan (via Online Teaching Japan Facebook group) who use a DSLR camera or an HD camera which offer a crystal-clear, nearly broadcast quality picture. If I were 20 years younger and 20 kilos lighter, I might have opted for such a high-quality setup. As it is, the iMac built-in webcam's focus is soft enough to adequately disguise the details of faded youth.

To summarize, video creation for on-demand courses requires, at the very least, visuals (slides or similar content) and quality audio from the teacher; a camera of the teacher's face is optional. Making videos that students will want to watch requires careful planning, execution, and post-editing. It can be extremely time-consuming if a teacher is obsessive about offering students the best possible video.

As for style (a), synchronous courses via Zoom — there were 5 courses I taught live: my two seminars, my communication strategies course (English skills), and two content courses in American culture for the WLAC. Teaching live classes online was reminiscent of the work I used to do on the radio in the US, in the 1980s. Some elaboration is required here. Except for at the biggest stations in major markets, radio announcers perform what is called a "one-man show," meaning DJs run their own control boards, spin records, press the buttons for commercials, and so on. In addition to all that, they have to improvise their talk. Like the circus artist who must keep all the plates spinning on poles without them crashing to the floor, DJ-ing requires a mix of dexterity and concentration to keep all the sound going to prevent silence: the dreaded "dead air." And so it was with zero trepidation that I jumped into being online "live" again. This time, the added benefit to being live would be that this DJ would be able to see his audience.

Regular classroom teaching vs online remote teaching
Under normal circumstances, teaching isn't back-breaking labor, but it requires a certain degree of physical and mental acuity to pull it off right. If you're sitting down, and you're doing all the talking, you're not doing it right. Moving around the classroom is necessary both for keeping students' attention and keeping the blood flowing to the teacher's brain. Good teaching requires you to be standing at the front of the room and sitting in the back row monitoring yourself at the same time. Our students' eyes are the windows to the brain. Look and see if the lights are on, and if they're with you or not. The usual room in which I teach my seminar is wide and narrow, a room chosen specifically so that no students can escape to a back row. I demand that students bring their A game to class meetings, and that entails keeping their eyes opened.

During the Great COVID-19 Teaching Challenge, I was able to see my students'

eyes better than ever. Seminar students were lined up, each visible on one Zoom screen. A few students usually sat farther away from their camera than others, but they were always near enough so that I could read them, and I see that to be an invaluable source of information and inspiration. I find it indeed very strange those teachers who don't care if students' cameras are on or not as they teach, as if those on the receiving end of "teaching" are expected to do nothing but appear to attend. To paraphrase Truman Capote, "That's not teaching, that's talking."

I do understand, in our digital age, the right to privacy, that students can and should have the choice to show their environs or their identity. Our gakuen has made this a rule, and I have therefore been sure to include it on the syllabi. However, I dislike the extent to which students flagrantly use the rule with the *effect of appearing* to attend class. For example, during the fall, 2020 semester, I taught an elective "Pop Culture" class for the World Liberal Arts Center, a class that had previously been a great joy to teach to 50 students, face-to-face. (Before the COVID calamity occurred, I agreed to increase the number to a maximum of 150 students.) The course's title virtually sells itself: "American Pop Music Today." In 15 weeks, we studied 25 contemporary songs (both the lyrics and music videos) to see how they reflect American culture. The content was, on its face, appealing and fun. Talks about the song, viewing the video, and vocabulary presentations were well-structured and supported with plenty of visuals. Yet, fewer than a third of students left their camera on, so I was unable to gauge from them how fast or slow I should present. Additionally, in the first weeks of class, I assigned small group activities to students via Zoom breakout rooms, only to find (via spot-check) that more than half the students failed (i.e., no audio or visual) to communicate with random peers. There was no way to determine if they were actually present on their side of their connection. Despite my repeated requests, students were unconvinced of the necessity of interacting with others or the teacher.

As a result, I abandoned any kind of peer-to-peer work and focused instead on engaging them as a group. The tool I used to engage students (sharing opinions, ranking, voting, etc), Poll Everywhere[8], had proven quite effective in live F2F classes before. At first, about two-thirds of the class responded to the polls, but as the semester progressed, only half of the students present chose to engage in the simplest, anonymous, opinion sharing. I knew that the students were present because they submitted scored review quizzes that I assigned to them ten minutes later. They just couldn't be bothered. It was very disheartening to have students rebuff even the simplest activities designed to engage them. By the end of the semester, only 4 students out of 145 students who regularly attended cared enough to turn on their camera during class. I think teachers might find this level of student apathy to be par for the course had this been a lecture course on linguistic history covering Chomsky's government & binding theories, but this was a course where the average demand on students' intellect was processing a Katy Perry video. Clearly, the attractiveness of the content seems not to matter much. I concluded that, in a large class where students are afforded relative anonymity, they will opt to be unaffected by attempts at engagement and remained focused solely on getting credit for the course, with the least amount of human interaction necessary.

Given such student preference, and the emotional toll it takes on a teacher in that situation, it does not seem worthwhile for teachers to offer a synchronous course. An on-demand course would likely be a desirable alternative. In the case of the aforementioned Pop Culture course, teachers and learners would both be better served if teachers could post pre-recorded lectures and upload them to YouTube for students to watch and activities for them to complete. Since the content of the pop culture class consists of songs and music videos, careful editing would be required to ensure that copyright violations are not infringed. YouTube will flag — the moment upload is complete — any video that contains copyrighted

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material, but their system allows creators to dispute violations by submitting a form that claims "fair use" of the content within the context of educational presentation or social commentary. It is my experience that YouTube accepts fair use claims and does not penalize uploaders. However, in no case will YouTube allow the use of a copyrighted work in its entirety, so teachers are advised to use songs or videos in brief segments.

Beginning with the end on mind: Bookwidgets

One tool that I couldn't have lived without during our remote teaching was Bookwidgets. Bookwidgets is an online service that allows teachers to create activities for students to access. For a small annual fee, teachers can make an unlimited number of quizzes, worksheets, crossword puzzles, and other games to aid students in their learning. Photos, audio, video, and hyperlinks can be embedded into widgets. After students do a widget activity, they submit it, and immediately receive a score and automatic feedback. Widgets can be linked through Moodle, Google Classroom, or any LMS for easy student access.

The main reason I avoided the free activities that Moodle 2.5 offered and those that could be made by Google Forms is that I found their user interfaces too simple. Students, like all digital consumers now, are accustomed to the tapping and drag & drop functionality that HTML5 coding offers, and I feel that if the learning tools we give them don't contain the same style of functionality they are accustomed to, they will view the tools as substandard, and they will connect that substandard quality with the education they're receiving. In other words, the activities that students do ought to be as cool as everything else they casually encounter online.

As I mentioned above, it took several years of experimenting with different online services to find a quizmaker that worked well for me and my students. Bookwidgets leverages touchscreen functionality to let students draw a line

between objects to match them (fig 1), and to drag and drop not only words, but also audio clips and photographs into groups (fig 2).
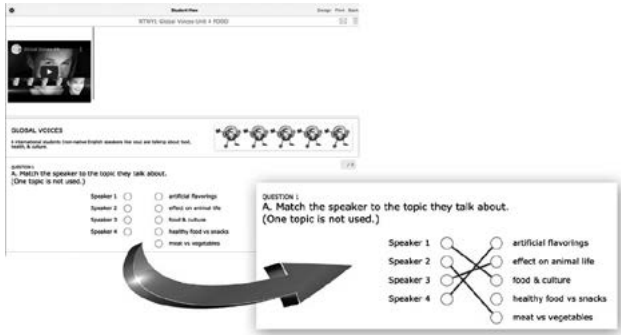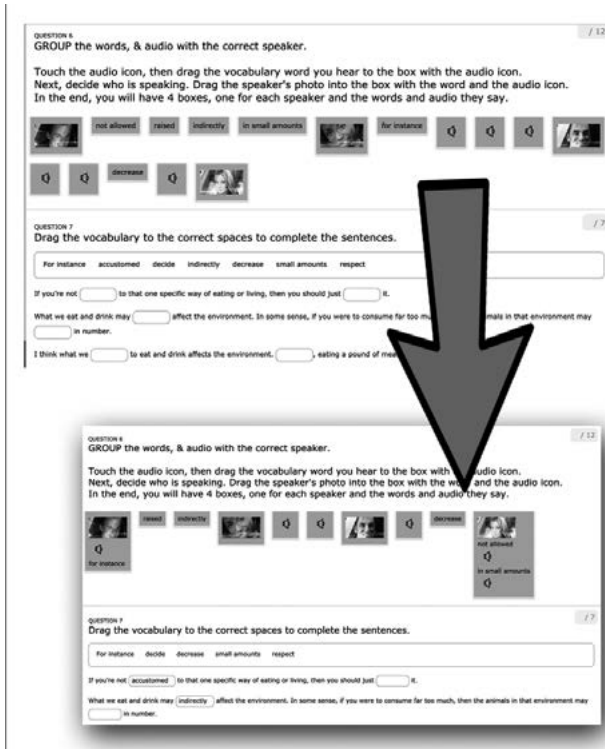

Figure 1

Figure 2

It's much more impressive than anything that can be created by Google Forms.

I used Bookwidgets in every course I taught, every week, whether the class met live or was offered to students on-demand. Any teacher in every class needs to give students clear, relevant assignments that lead them further toward achieving the goals of the course, and for me, Bookwidgets was the tool that delivered those assignments. Want students to read an essay? Put the essay in a "split worksheet" with the text on the left and the comprehension questions on the right. Want students to watch a video and check their understanding? Create a split worksheet with the video embedded at the top, and comprehension questions to answer on the bottom. Add photos. Use a variety of questions: true/false, multiple choice, matching, fill-in-the-blank, grouping, word-ordering drag & drop. Create a crossword widget to have them review vocabulary. Want to have students do listening activities? Embed the audio into a worksheet, and flush it out with free stock photos, just like the publishers do. One class of an on-demand course often consisted of two widgets for students to complete during a ninety-minute class.

Bookwidgets offers various types of widgets for different purposes. For homework assignments, on-demand lessons, and in-class work in live classes, I often used the **worksheet** widget. It contains all the questions that students must answer on a single, scrollable page. A **split worksheet** contains both questions and scrollable content (essay or embedded video or audio). For tests, **quiz** widgets are useful; rather than on a scrollable page, each item is on a single page, and students press forward and back buttons to access items. With the quiz widget, students can see at-a-glance how many items they have answered, which ones they skipped, and how many are left to answer. Quizzes can be configured with a countdown timer, which locks the quiz when the timer reaches zero, and permits them only to submit their answers. The quiz widget is ideal for unsu-pervised testing in that students don't have time to go searching through notes

for the answer. Bookwidgets recently developed an optional setting for quizzes that prevents users (test-takers) from leaving the browser as they take a quiz: If students go to another tab or switch apps, this function deletes their previous responses, and students have to start again from the beginning.

Additional widgets students enjoy using in a live class include crossword puzzles, pair matching, and word search (fig 3). These widgets support submissions for feedback and grading, in addition to live monitoring, so a teacher in a live class can see exactly when all students are done with the activity.

Figure 3

Figure 4

Since I set up my LMS to allow students to access on-demand activities only during the 90-minute period they are enrolled in, I could observe in real time each student's progress on each graded item in a widget (fig 4). This is quite a useful function, as it lets teachers quickly see if activities are too simple or too difficult for students, and it helps teachers to identify any mistakes made in constructing it (e.g., "ALL students are answering TRUE rather than FALSE for item number 7, so it's likely that TRUE is actually the correct answer), so that the mistakes can be corrected quickly, and students be given proper credit for the item. The toggle (circled in red, next to the column heading "Student") can blur student names so that the teacher can share them as a leaderboard during a live class for students to see how their progress and scores compare with those of their peers.

Interacting beyond the Zoom whiteboard: Poll Everywhere

Live polling and commenting with Poll Everywhere keep students engaged rather nicely in a live online class. It's free for teachers when used with up to 40 students at a time. In my skills-based speaking class, I use multiple choice polls as class warm-ups or cool downs. The poll function in Zoom can do the same thing, except that when teachers make a poll in Zoom, that poll can only be accessed by students in the meeting for which the poll was made. If you're giving the same poll to multiple classes with Zoom's poll function, you will have to make the same poll for each class. With Poll Everywhere, you create a poll question only once, and use it again with any class. Additionally, Zoom's polling function is limited to yes/no or multiple choice. Poll Everywhere allows students to enter their text that can be displayed to the class as word clouds (fig. 5), a text wall, or in clusters. Zoom's public chat function pales by comparison. Poll Everywhere lets students upvote or downvote other students' answers to discussion questions, rank items, and create Q&As, just to name a few functions (fig 6).
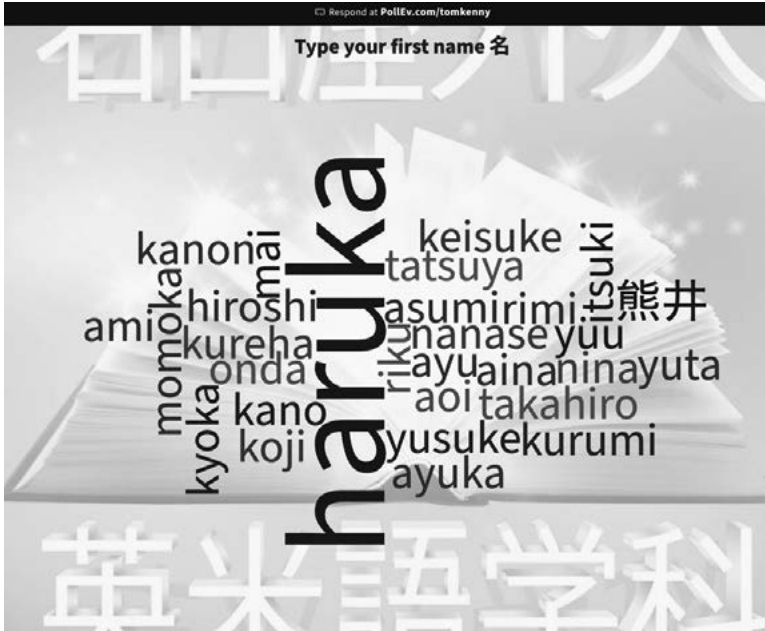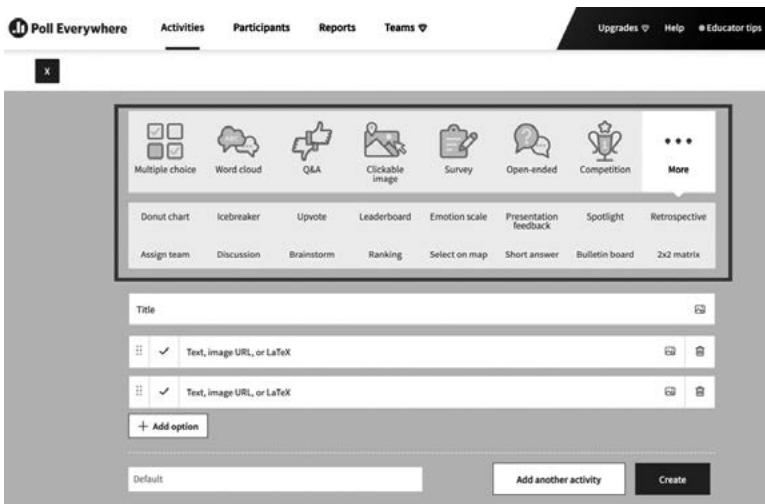
Figure 5

Figure 6

Another praiseworthy function of the service is that it can be set to moderate what students type. For example, off-topic responses can be deleted by the teacher when necessary. Poll Everywhere lets teachers block emojis from responses and has three settings for its profanity future: (1) "Block responses with profanity," (2) "Censor profanity out of responses," or (3) "Disable filter. Anything goes!" With these moderation tools, teachers can prevent the verbal equivalent of Zoom-bombing[9] by students.

In the second semester of 2020, I opted to upgrade to a paid plan of Poll Everywhere so I could experiment with three features not included in the free version of the service. The first feature was related to class size. The free plan limits the number of respondents to 40 students, but the paid plan I chose (Higher education "Individual Instructor") raises the cap to 700, which was much more than I actually needed, since I used it for a class of up to 150. The second feature allows for student registration. I used this for the first time for an intensive WLAC course I taught at the end of January. This is useful for tracking how much a student participates and assessing the quality of the comments they share. When student X makes a comment in a Q&A discussion, their name does not appear with it on the screen, so students can take a bit of risk. The third feature, reporting and analytics, lets teachers see summaries of comments in customizable report forms. Teachers can make reports after a class to see who made the impressive comments in discussion. At the end of a course, teachers can view reports on each student's individual comments.

Takeaways/observations about emergency remote teaching
1. The vast majority of students rose to the tech challenge.
Whether it was attending live classes or accessing activities in on-demand ones, students "got the hang of it" pretty quickly. The learning curve for accessing activities via Google Classroom is pretty low. Same goes for understanding how

to use Zoom. I burdened my students with the additional task of learning to use a new LMS, Canvas, which rivals Moodle and Blackboard in North America. 2020 was my 3rd year using Canvas with NUFS students. Pre-Covid, there were always one or two students per class who had trouble registering and accessing Canvas in the first weeks. I thought that the number of students having trouble during the Covid-crisis would be much greater, but thanks to the work of student assistants (paid from a personal research budget), bilingual manuals[10] were created to help first-time Canvas users, and there was no increase in the number of students who required extra assistance in accessing the LMS.

2. **In an informal, anonymous poll, all but one of my seminar students said that the remote learning experience did not cause additional anxiety in their lives.**

I admit that the wording of this observation is vague, so I prompted students (n= 34) to elaborate, either in English or in Japanese, but the student who claimed additional anxiety did not elaborate. I infer from this that my seminar students did not feel especially isolated due to not meeting physically. I suspect that the convenience of attending class without the hassle of an early-morning commute likely was a factor in their responses.

3. **Virtual spaces are more efficient than physical places.**

I feel that Zoom breathed new life into my seminars. Pre-Covid, I often lectured too much in the classroom, and found group work difficult to manage, with students clinging to their familiar seating patterns. The breakout room feature in Zoom changes the playing field. Students work in breakout rooms in groups of three to brainstorm, research, and outline; then they present to others one-to-one. There's a tremendous efficiency to pairing and grouping students in virtual spaces compared with physical classrooms. Moving students instantly beats students moving around themselves.

In any oral communication classroom (physical), students have trouble finding their next partner. Students are slow to move and make decisions. In the online classroom, partners are given to them instantly and at random. The Zoom break-out room pairing function is, to me, the best addition to an oral skills class since the advent of timed conversations[11]. Regular spot-checking to be sure students were on-task confirmed that they were speaking in English and remained fully engaged. (I joined students' breakout rooms with my mic and camera muted, so as not to distract them.)

4. The majority of students were "okay" with on-demand style classes.

A survey of 2nd year students from the Department of British and American Studies (n=22) taking a content course revealed 72% of students didn't care if the class were live or on-demand. Only 3 out of 22 said they would have preferred a live class. When asked if they'd like to take the same class online again even if there were no COVID health emergency, 81% said yes. These responses confirm a prediction I made a year earlier. that once we go online, we'll be unable to "put the genie back in bottle." Now that students find "on-demand" style an acceptable form of learning, will institutions be willing to cater to consumer demand for it?

A survey of 3rd year students taking a World Liberal Arts Center on-demand, content class (n=96) produced similar results. 76% said they didn't care if the class were live or on-demand. Fewer than a third said they would have preferred a live class. When asked if they'd like to take the same class online again even if there were no COVID health emergency, 69% said yes[12].

5. Teaching hard will take its toll.

One year of teaching online took a significant toll on my health. Without the regular physical activity of walking around the classroom and spending class time standing, I fell victim to "Covid debu." Losing weight has never been

an easy task for me in the first place, but I made it worse by failing to get any outdoor exercise at all for nearly a year. I could always create a good excuse not to: "I have to create activities for Monday's classes" or "This video needs to be finished by Friday." Such self-demands often required 15-18 hour working days. I was certain that my colleagues were making the same efforts, as President Kameyama had called upon us to do when we began the challenge of emergency remote teaching.

Nevertheless, I am grateful that there were no "total failures" in teaching. There was never a case in which I was unable to deliver a class as scheduled due to poor time management or technical problems on my part. Thanks are due to OCN's fast and reliable wi-fi, and to a research budget that allowed me to buy a pricey new iMac (Intel Core i5, with 32GB of memory), which arrived two days before classes began, replacing an older iMac that died unexpectedly on April 1, 2020.

6. Students liked the on-demand videos they watched.

This was probably the most rewarding aspect of my teaching in the first semester. Of 118 total students surveyed in two classes, students were nearly unanimous in their praise for the videos I created for them. They responded that the videos were helpful in learning class content and interesting enough. They also recognized the hard work it took to make a good class in a time of crisis. Ninety-six percent of students said that they would recommend the class to other students, and all students but two (one in each class) said that they would like to take another class from me in the future.

Conclusion

It's apparent that the emergency remote teaching we performed constituted a formidable paradigm shift, both in how teachers view teaching and how students respond to it. In retrospect for me, it was an abrupt, but logical next step follow-

ing the introduction of a paperless classroom. In 2012, rules were firmly in place prohibiting students from turning on their devices so that they would remain focused on their coursework. Today, their coursework can't be done without that device on. What was once a distraction is now a necessity.

NUFS President Kameyama gave a commencement speech in March in which he highlighted the English word *resilient*. Invoking this word was appropriate and effective. Students showed amazing resiliency as they adapted to an unprecedented change in the way they were taught, and they should be applauded for it. We teachers who suffered some degree of "shell shock" through this teaching challenge can find hope lies in resiliency. However, before we break our arms patting ourselves on the back, much work still lies ahead in making the transition from "emergency remote teaching" to creating effective and engaging online learning experiences.

Notes

[1] https://www.proprofs.com/

[2] https://www.ispringsolutions.com/

[3] https://www.bookwidgets.com

[4] *Online Teaching Japan*, private Facebook group, https://www.facebook.com/groups/603548090241536

[5] a brief instructional video detailing recording method number two can be viewed privately at https://bit.ly/3c83E6U

[6] a video created for students is available for public view at https://youtu.be/uv9XXMUdHek

[7] https://www.techsmith.com/

[8] https://www.polleverywhere.com

[9] "How to prevent Zoom-bombing," PC Magazine online, https://www.pcmag.com/how-to/how-to-prevent-zoom-bombing , retrieved April, 2021.

[10] a manual is available for private viewing at https://bit.ly/3wRMTVB

[11] Kenny, Tom. "Conversation strategies, timed practice, and 'noticing' in large oral communication classes." In Cornwall, et. al. Eds, *Proceeding of the JALT 1996 International Conference on Language Teaching/Learning*, pp. 106–110.

[12] data first reported in a NUFS Faculty Development talk given on 4 September 2020, available at https://bit.ly/3il9AgX