

# **To Zoom or Not to Zoom: Privacy Concerns and Students' Attitude Towards Interactive Online Learning**

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The very notion of what constitutes privacy has been impacted by the need for many educational institutions to move their classes online during an unprecedented global pandemic. Yet, did this decision have unintended results with regard to students' privacy? In the future, how can new parameters be set to ensure that students remain confident that online learning classes will continue to offer protection against infringements of their privacy?

This paper will attempt to provide initial insight into students' feelings towards how their privacy was impacted by two language learning courses that were conducted exclusively online during the COVID-19 pandemic. To gauge reaction to the online classes a survey was conducted amongst 246 students over two semesters that measured their attitude towards privacy concerns. The students that took part in the research all used Zoom, a livestreaming videoconferencing software, were non-English majors and from a plurality of faculties at one national public university in Japan. The findings indicated that students retained a degree of concern over the protection of their privacy in regard to current online classes but would become more concerned if these types of classes remained a permanent part of their language learning process.

## **BACKGROUND**

### **COVID-19 and a 'New Normal'**

The topic for this article was formed during the early stages of the COVID-19 pandemic in Japan when face-to-face restrictions were implemented at the university the author works at. Like in many educational institutions around the world, the explosion of a highly infectious disease resulted in massive alterations to how courses were taught. This 'new normal' precluded many of the more traditional methods of classroom-based learning such as face-to-face interaction between learners and educators. The response to move away from situations that increased the likelihood of in-person interaction was implemented without the affordance of much forward planning. Therefore, there was always a risk no matter how accidental, that issues related to student welfare – namely protection of their privacy – could be overlooked in the rush to provide a language learning environment that was close to the standard that had operated before the pandemic began.

The starting point was framed first around the technology that would be needed to conduct online classes. Two of the leading software communication platforms that offer live-streaming videoconferencing are Microsoft Teams and Zoom by Zoom Communications. Both provide similar services with regard to video chatting, yet the advantage Zoom possessed over Teams was the ability to show all participants' video screens at the same time, thus creating more of a community feel to the class. Teams would only highlight up to a maximum of eight video captions simultaneously, which raised concerns that students could feel excluded if their caption box was not shown for a length of time. Additionally, Zoom offered a 'breakout

rooms' service which allowed for the entire class to be broken into smaller groups to complete some class activities in a manner similar to a traditional classroom-based setting.

There were three further reasons why Zoom was selected as the software tool for these online classes. Firstly, students did not need to sign up for a Zoom account, as long as the host (teacher) held one then all the students needed was the meeting details – either a URL address or Zoom App code (generated by the host's account) to be able to log on. Secondly, to sign into the Zoom meeting students were not required to divulge any sensitive information such as an email address that could potentially result in an infringement on personal privacy. Indeed, when signing into the Zoom meeting students did not even need to give their real names, although for the purpose of classes taught by the author that was a requisite. Finally, Zoom offered both audio and recording options that allowed the host to upload recorded data to a central learning management system (LMS).

### **Course and Participants in the Study**

The contrast between how the world was in 2019 compared to 2020 will no doubt be a rich source of research for years to come. Yet the two courses taught by the author and used as a basis for the research in this paper provide a glimpse into how COVID-19 significantly altered language-learning classes. The following general data remained the same for both 2019 and 2020:

1. Two semesters of two 8-week quarters.
2. One class-a-week consisting of 90 minutes.
3. 1<sup>st</sup> Year compulsory English communication courses
4. Semester 1: Oral Communication / Semester 2: Writing Communication
5. Non-English majors

However, in April 2020 following guidelines from the Japanese government the author's university implemented policies that resulted in language courses moving 100% online, initially for the first semester, but subsequently for the whole academic year. This, aside from the obvious lack of face-to-face learning, resulted in the following changes from what had occurred in 2019:

1. Paper textbook changed to a free etextbook written by the author.
2. All classes conducted online using Zoom.
3. All student-instructor communication via videoconferencing or email.
4. All coursework submitted digitally.
5. Less teacher monitoring of classroom activities.
6. Reduction in use of mobile technology as a supplementary learning tool.
7. Breaks within the online class to allow students time away from a computer screen so as to lessen the likelihood of eye strain / headaches.
8. Less personalisation in the classroom, leading to a weaker student-teacher relationship.

Of the eight differences highlighted between language learning courses in 2019 and 2020, the two most significant were numbers two and eight. Clearly all classes being conducted online was a massive change from anything the author or students in the classes had experienced previously. The initial weeks in April and May during the first semester were a testing ground, with online classroom activities in particular being conducted on a ‘trial and error’ basis. This naturally resulted in some exercises not working and valuable learning time lost, as the author and students got used to the ‘new normal’ of online classes. The second semester by contrast benefited from both students and teacher having had experience of Zoom classes and the course topic being better suited to online learning. Writing communication relies less on collaborative class time activities than oral communication, where a greater need for personal exchanges, and teacher observation is required.

### **Interactive Online Learning Classes**

Interactive online learning classes are simply regularly scheduled classes that are conducted live via videoconferencing software. They differ from online learning in that the bulk of the interaction between instructor and learner must be done in ‘real-time’ and importantly face-to-face, or in this case, screen-to-screen. The importance of real-time face-to-face learning is that it creates a learning environment that students already have had years of experience in – the classroom. This can provide comfort and familiarity when many other aspects of their learning process have been radically altered.

Online classes can include aspects of ‘on-demand’ learning, such as pre-recorded audio or video materials that have been uploaded to a central LMS. Yet the learning activities and presentation of class materials should mostly be conducted in real-time where possible. This, in essence, attempts to mimic the traditional classroom learning environment by transferring face-to-face interaction between students and teacher to an online setting.

Other aspects of a course are ultimately up to those who teach it. In the two courses outlined in this paper, the author chose Zoom videoconferencing software and insisted that students switch their cameras on for certain parts of the IOL class. What hardware the student selected to operate Zoom on, and the location they logged on to the lesson from, was left up to each individual student.

### **RESPONDING TO THE PANDEMIC**

2020 will always be remembered as the year that a pandemic engulfed the world, forever impacting on how humans communicate and interact with one another. Indeed, many dictionaries chose ‘lockdown’ as their word of the year, such was the restrictive effect of the COVID-19 virus on many aspects of everyday life (Collins Dictionaries, 2020). Education did not escape unscathed from the devastating impact of a disease that up until November 2020 had resulted in 59.6 million cases and 1.56 million deaths worldwide (Rosser et al., 2020). In response to massive curtailments imposed by governments across the globe on personal interactions, educational institutions had to respond speedily to the ‘new normal’ of restricted personal contact between educators and learners. The English word ‘zoom’ that had most often been used as a verb suddenly morphed into a proper noun and set the share price of an American telecommunications company rocketing from US\$69.85 to a high of US\$559 in just 11 months (Yahoo Finance, 2020).

Predicting the future, especially in the current climate, seems an unwise exercise, yet COVID-19 has shown educators that online classes can provide a successful long-term learning environment. This naturally opens up a whole series of new considerations into how learning could be taught online. Yet, discussions over how to successfully integrate online learning materials should not be restricted only to pedagogical matters – although clearly these remain essential. Other issues such as the privacy and security of the participants in IOL classes must remain paramount to the development of any future online learning programmes. To an extent this has always been the case and responsible educational institutions have taken data security seriously and adopted practices that aimed to reduce the risk of online security breaches. Although the importance of privacy has received considerable scholarly attention and has been researched for more than a century, such research has been conducted mostly from a legal rather than an educational standpoint (Warren & Brandeis, 1890; Prosser, 1960).

However, educational institutions clearly need to address privacy concerns that had previously not been a major factor in the learning process. Protection of privacy is integral to securing a safe learning environment in which both educators and learners feel comfortable. Within education there has always existed privacy concerns that like a ball of putty could be shaped, stretched and reformed to answer the requirements of the students, teachers or educational intuitions.

Essentially, privacy is ultimately a flexible concept that has different parameters depending on the students, teacher, institution, culture or region of the world that it explains. Yet, because of COVID-19 these privacy boundaries have fundamentally and irreversibly been changed. Educational institutions, instructors and learners have had to adapt and accept that new privacy policies need to be adhered to if online learning can operate to maximize students' learning.

## **INTERACTIVE ONLINE LEARNING AND PRIVACY CONCERNS**

### **Privacy Concerns**

Privacy concerns are at the heart of any debate over how to manage fears over students' privacy when using technology such as Zoom or Teams. A flexible approach is needed between learners and educators to properly protect privacy. However, at the same time the necessary guidelines must be implemented so as to make sure that the learning process is not corrupted. The dilemma over individual privacy verses online necessity has been called the 'privacy paradox' (Acquisti & Gross, 2006; Taddei & Contena, 2013). This privacy paradox needs to define what privacy levels should be accepted and what stipulations need to be used, even if it seems at first to be encroaching a little on individual privacy. Although the privacy paradox was first established to examine the discrepancy between individuals' intentions to protect their own privacy and how they actually behave in an online marketplace, concerns over privacy protection are just as valid for online classes. As teaching moved largely online how should educators and learners approach the fact that a camera could be live streaming into an individual's home? As language learning classes worldwide have moved into the digital sphere, careful thought needs to be concerned with what precedents could be set by online classes.

Additionally, communication privacy management theory argues that privacy should not be thought of as establishing the maximum boundary for keeping others out, but more as a negotiation between accessibility and retreat (Taddicken, 2014). When organising an online class format, educational institutions clearly need

to be adaptable and adjust, as any quality university or school would, to the needs of their students. A dynamic process needs to be instigated that uses strategies, which can also be called privacy rules, that will be able to create parameters and create boundaries that all participants accept (Baruh, Secinti, & Cemalcilar, 2017). Ultimately, an accord must be reached between educators and learners in which participants perceive the risk to their privacy to be lower than the benefits of sharing through an online class. Finally, as with any educational scenario this may well result in different privacy rules being set for different classes, faculties or places of higher education as the needs require.

The need for an agreement between participants in an online environment is a necessary starting off point for any language learning course that moves from the physical to the digital classroom. Yet what issues impact reaching such an agreement? There are two main areas that provide the possibility for an encroachment into undefined areas of online student privacy. The first is disguising the location from where the student has joined the class, and the second is protecting their physical appearance online.

### **Live Streaming with Cameras**

Perhaps, the one area that has been somewhat overlooked as the world becomes increasingly more reliant on digital technology is the impact that a small camera which live-feeds into a student's home has on the emotional balance of the participants. At a very basic level, do educational institutions cross a line by insisting students comply with online lessons via a live-streamed camera? The role of the camera is obviously crucial to the future direction of online classes, as facial identification remains the simplest, easiest and most used form of human-to-human recognition. However, there are some learners (and indeed educators) who simply feel uncomfortable with a digital window being opened to reveal what their homes look like. Once the digital curtains have been opened, the result of shining a light into areas and aspects of students' lives that are usually not often glimpsed inside a classroom can be stressful and therefore hindering to the learning process (Johnson, G. 2020).

Online learning is not a new medium in which to engage in language learning. However, it was not until the development of the world wide web that educational institutions could offer studies that could be completed from a person's home quickly, conveniently and without the possibilities of delays caused by variations in a postal service. Yet it was only towards the end of the 20<sup>th</sup> Century that the world's first fully web-based accredited university opened when Jones International University in Colorado started to offer university degrees in 1996 (Online Schools, 2020).

However, the reality of online learning in 2020 is that the demarcation line between a student's home and school life has merged into a situation where the boundaries between the two have left educators and learners potentially unsure what they can constitute as 'private' and 'public'. Receiving a message in the mail, switching on educational TV programmes or even accessing prepared content online does not allow the originator of the content a direct window into the learner's home. Whilst a built-in camera on a computer or mobile device offers the ability to engage conveniently with a person who perhaps lives on the other side of the world, it also offers the possibility that deeply private objects may be unintentionally viewed. The first feature that was needed in the research outlined in this paper was to identify from what locations students were joining their Zoom classes. The survey outlined in more detail later in this paper indicated that there were five potential scenarios in which a typical Japanese university student might be joining the online class.

These were:

1. A dormitory room
2. A one-person apartment
3. A designated computer space on campus – such as CALL room
4. A wireless Wi-Fi connected classroom
5. A non-educational space – such as a park in summer

The latter three learning environments at first might present fewer concerns over privacy and more anxieties relating to Internet connection and potential security breaches. For example, open access or free Wi-Fi spots are potentially less secure than if accessing the Internet from a university or private home. Yet, the possibility exists that students could be compromised by other students who are not part of their class but are in the same room or location. One quarter of the students who took part in the survey responded that they frequently joined the online class via one of these two situations. So, the threat to privacy cannot be dismissed. On the other hand, the first two scenarios listed above perhaps provide the greatest threat to a student's privacy. With the camera opening up students' living arrangements for everyone in the class to observe, concerns have been expressed that this could subject students to bullying (Sonnemaker T, 2020). Therefore, these are concerns that cannot be excluded from any research into students' privacy issues.

### **Hidden Facial Features**

The 2020 pandemic did not witness the first time that language learning was conducted in some type of online format. Technological advances, particularly in mobile technology, in recent years have allowed students to access online content whenever, wherever and however it is most convenient for them (Kukulska-Hulme, 2009). Privacy concerns relating to the potential invasion of personal space whilst using telecommunication software did not begin with the instigation of lockdowns and classes moving 100% online. In 2009, five researchers proposed implementing technology that would allow people to digitally hide their facial features. Called Respectful Cameras, the research called for a real-time approach that preserves the ability to observe actions while obscuring individual identities, for example through an opaque ellipsoidal overlay (Schiff et al., 2009).

The main problem relating to Respectful Cameras is that the technology was somewhat cumbersome – the person's face being obliterated by a mono-coloured disc. It may have allowed for greater privacy, but if more than a handful of people grouped online all had their faces hidden by discs then a rather confusing visual image emerged – i.e., is Student A the red disc or the black one? If Respectful Camera's solution had the potential to confuse, then the next possible answer to how to protect online privacy whilst still making the user easily identifiable has its roots in gaming and social media. Avatar, a word originally deriving from Hinduism and standing for 'descent of a deity in terrestrial forms' (Wikipedia, 2020) is now often used as a noun to explain a graphical representation of an online user's character or persona. An avatar can be almost any image the user wishes it to be, from accurate depictions of their physical appearance to animated figures that depict real-life people, characters or animals, or even fantastical images that bear little resemblance to reality.

Although avatars can provide some level of privacy, how the image is designed, studies have suggested, impact greatly on how a person is perceived online. Humanoid avatars are judged more positively as they are considered to be more attractive, credible and competent (Westerman, Tamborini, & Bowman, 2015). It has also been argued that the more human-like the avatar, the better communication satisfaction there is between people (Kang & Watt, 2013). Online communication where the imagery closely resembles a human is considered more natural and more persuasive than avatars that depict non-humanlike images (Gong, 2008; Heyselaar, Hagoort, & Segaert, 2017). Additionally, another problem with the use of any avatar is that software is not always compatible on all operating systems. A further, but significant problem, is that avatars can be slow to respond to people's faces when they are being used during a live video stream. Finally, the telecommunication software being used to host the class might not support such technology, so some students who wish to adopt a form of privacy would be penalised, yet others with compatible technology would not. This is hardly creating a level playing field, nor promoting class cohesion.

### **Virtual Backgrounds**

The idea of privacy concerns refers to the notion of individuals' fears centred around the negative consequences associated with sharing information (Cho, Lee, & Chung, 2010; Zhou & Li, 2014). For online courses conducted using videoconferencing software, obscuring the facial features of a student would not help to prevent other class members seeing into their homes. Therefore, the student's conduct could be impacted by a nervousness or fear that classmates and teachers could penetrate their homelife via a camera. The fact is that obscuring facial features can be done without the need for technology such as Respectful Cameras or avatars. If nothing else, the COVID-19 pandemic has shown that wearing a mask is a cheap and convenient manner in which to easily hide most of an individual's face.

Fundamentally, if the question remains how to protect a student's privacy by limiting viewing access into their homes, then other technology that hides or blurs the background, needs to be adopted. The best solution to this problem would be a virtual background, which is a feature that allows an individual to display an image, montage or even a video as a background during an online class. Companies such as Zoom and Microsoft have created software that allows their users an option of using a virtual background whilst participating in a videoconference call.

Virtual backgrounds can offer substantial levels of privacy by obscuring the room a student or teacher is participating from, but as with all technology there are potential issues that cannot be overlooked. The first is that without a green screen stationed behind the user, the photograph used as a virtual background can come across as imperfect and create a blurring of details. This can, after prolonged use, cause other members of the online class to have difficulty looking at the user for prolonged time periods. Another issue is that the photography must be of sufficient pixilation quality so as to not appear distorted. Zoom suggests that the minimum resolution required must be 1280 x 720 pixels (Hudlet, 2020), whilst Microsoft Teams users require photographs of a higher quality with a pixelation dynamic of 1920 x 1080 (Crayon, 2020). This means that not all photographs captured on a mobile device will be up to the required standard for them to be integrated as a background. Once more, if a student does not possess the technology to take a photo of the required pixelation quality then they could be penalised unfairly as this might prevent them from hiding their backgrounds sufficiently.

## **Background Noise**

The final area that has the potential to impact on the quality of online classes is the ambience of the location where the user is participating from. Or to put it more simply, the background noise could also create privacy issues. Vedamo, a telecommunications company specialising in software that creates online virtual classrooms, identifies three areas where noise could impact negatively (Vedamo, 2020):

- a) Hearing your voice through another participants audio feed.
- b) Receiving acoustic feedback when other participants speak.
- c) Distortions or disruptions in your audio or another user's audio.

Ready Talk, a communication and collaboration software solutions company that specialises in providing online web video and audio-conferencing software, collaborated with Vanderbilt University and expanded the list of potential noise control issues (Ready Talk, 2020):

- a) Low volume of speaker / listener – makes communication cumbersome.
- b) Background audio noise – most teleconferencing services do not have the ability to automatically block out background noise.
- c) Audio delays – delayed audio for a few seconds between speech and broadcast.
- d) Line noise and feedback – crackling or clicking sounds on the line cause serious audio difficulties.
- e) Hollow sound – often described as sounding as if a speaker is in a tunnel.
- f) Audio echoes – the speaker becomes hard to hear and sounds far away.
- g) Failure to unmute correctly – this can lead to confusion / frustration.

The University of Connecticut tried to offer solutions to some of the above potential noise issues by advising students who were participating in online classes during the COVID-19 pandemic to adopt the following tips (UCONN, 2020):

- a) Use headphones, preferably multipurpose with a built-in microphone.
- b) Don't be afraid to use the mute button; this will prevent others from hearing what is happening in your space.
- c) Choose a quiet location — preferably inside your home.

Yet the problem with the advice offered by the University of Connecticut is that only one has a direct impact on limiting what others can hear from your home. Even then, a student is going to have to communicate at some point, and therefore, when they turn off their mute button, background noise will still be there for other participants to hear. Unless a student is in an isolated room where noise from that location can be almost nullified, then the potential for a user's privacy to be unwittingly breached remains a constant concern.

The areas identified in this section all create potential privacy issues that could easily impact on



students' confidence and so have the potential to have a negative knock-on effect in their learning process. Previous research indicates, to little surprise, that student confidence is greatly affected by how they feel they fit into a particular classroom environment (Crookes & Schmidt, 1991; Clement, Dornyei, & Noels, 1994). A path needs to be carefully maneuvered that allows for students to feel as though their privacy is being protected whilst at the same time following necessary pedagogical procedures that adhere to language learning norms. The research that is detailed in the next segment of this article asked students what privacy concerns they had relating to IOL classes and what impositions they felt comfortable with accepting so as to reach a level of language-learning that they felt was comparable with a classroom setting.

## GAUGING STUDENT REACTION TO IOL

### The Study

The main aim of the research presented in this section was to gauge general student reaction to the use of online classes under restrictions that were imposed upon them, without much in the way of consultation by their university. It was not an attempt to provide definitive conclusions, as one isolated study can never hope to achieve this, but more as an initial insight to understanding how students reacted to the rapid transformation from a traditional classroom learning environment to an online one. The survey was conducted in two installments over two semesters at Hiroshima University in June/July and then October 2020. In total 246 students responded to the online survey that was completed anonymously via Google Forms. All student participants were first-year non-English majors. The majority of the survey was conducted in English, but some of the questions considered more complicated had a Japanese language version. For all the data, n=246 unless stated.

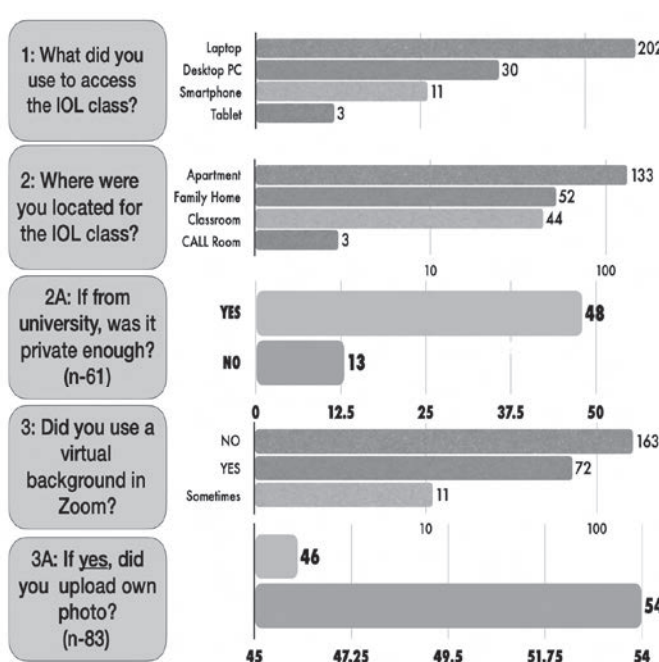


IMAGE 1: Abridged Survey Data (1)

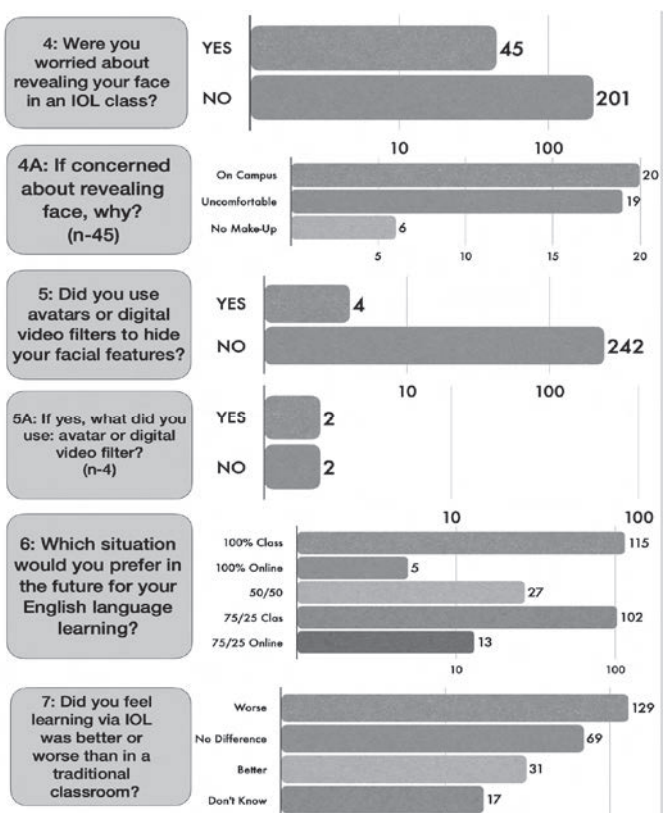
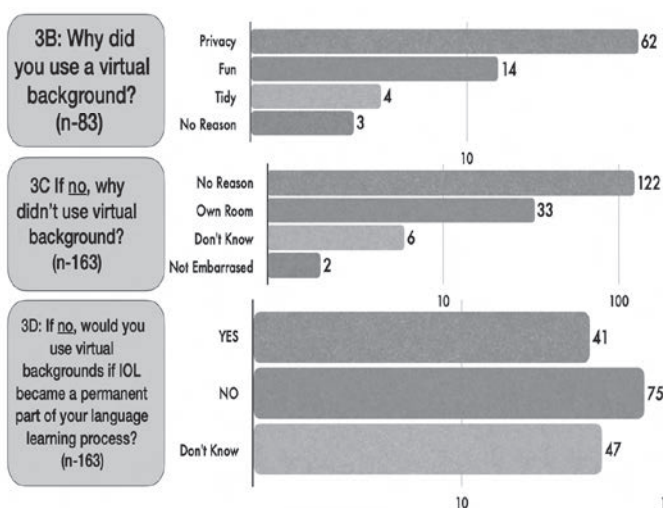


IMAGE 1: Abridged Survey Data (2)

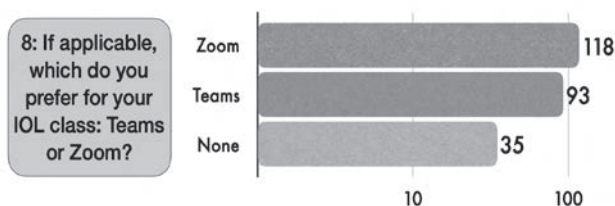


IMAGE 1: Abridged Survey Data (3)

## Results / Discussion

Question 2 showed, perhaps unsurprisingly given COVID-19 restrictions in Japan, that 75% (n=246) of participants accessed the online class from home – either an apartment / dormitory room located near the university or a shared family home. The remaining 25% (n=61) used a classroom on campus, with 79% (n=48) concluding that they had found it difficult to obtain a location conducive to the privacy they felt was needed to take part in the online class. Clearly, if a learner feels that their privacy is being impeded by their location, then it is not too hard to ponder what negative impact this could have on their interaction during class time.

Question 3 asked participants' views on obscuring their backgrounds and the results showed that only 34% (n=83) of students activated some type of virtual background – 29% (n=72) frequently. The dominant reason provided for why a virtual background was used was 'privacy concerns.' 75% (n=62) of students who used virtual backgrounds admitted that their decision to use one was related to anxieties over privacy. The majority of students did not use a virtual background, and the most frequent reason was 'no reason', so it is dangerous to draw too many conclusions, as the data are unsubstantiated. What is perhaps of greater interest, and certainly requires further study and analysis in order to draw more precise findings, is that when asked whether a participant would use a virtual background if online classes became a fixture on their timetable, 25% (n=41) agreed they 'definitely would'. However, 46% (n=75) of participants indicated that they were comfortable not using any virtual backgrounds as a privacy filter. Yet, a further 29% (n=47) responded that 'maybe' they would use a virtual background if IOL classes continued in the future. Again it is dangerous to draw any definitive conclusions from the word 'maybe', but the use of virtual backgrounds as a privacy filter is clearly a tool that students seem to be contemplating as a privacy filter in the future.

The issues regarding hiding facial features confirmed that students felt relaxed about displaying their facial features during an online class. As this is the normal practice for a 'face-to-face' class, the results show that there were few concerns amongst students in this area. Question 4 highlighted that 82% (n=201) of participants indicated that they had no issue with revealing their face during online classes. 18% (n=45) said they did have concerns, with the two biggest reasons given being 'participating from a university classroom' and 'uncomfortable'. The former could potentially be explained as it was university policy, that whilst on campus grounds, everyone should wear a mask to help prevent the spread of COVID-19. Only four students in the study used either an avatar or digital feature to mask their appearance, so it would be scientifically disingenuous to formulate any concrete findings from such a small answer pool.

The final two questions highlighted in Image 1 concerned attitudes towards comparisons between online classes and a more traditional face-to-face mode of learning. Question 13 imagined the future and asked participants their preferences towards the continued use of online classes as a part of their language learning process. A sizeable number, 40% (n=115), indicated that they would prefer to go back to the more traditional setting for a language-learning course – a classroom. That, of course, does not exclude use of digital technology as a crucial element to the learning process, but it does suggest that there is a limit to students' willingness to participate in online classes. Indeed, only 2% (n=5) of respondents answered that they preferred a 100% online course environment. When asked whether they would prefer a 50/50 split between interactive online learning classes and a traditional classroom, again the number was low, with only 11% (n=27) of respondents indicating that they would be in favour of such a division.

Perhaps the most intriguing result was when students were offered a split between IOL classes and a traditional classroom setting as a 25%-75% split with 41% (n=102) answered they would be in favour of this. Again, it is always dangerous to draw too many substantive conclusions from one study, conducted at one university by one author amongst a single year of students, but nevertheless indicators show that students were comfortable with some division between online and classroom-based learning.

The final question asked participants to compare online classes to a traditional language-learning classroom format. The results show that students still prefer the latter over the former, with 52% (n=129) of respondents concluding that they felt that online classes were worse. Only 13% (n=31) stipulated that online classes were better for their language-learning process and 7% (n=17) of students were unable to distinguish between the two options or declined to express a favourite. Possibly the most intriguing answer is 'no difference' – with 28% (n=69) of participants declaring that they could not distinguish between the two options. Therefore, if one was to take the positive approach, a combined 41% (n=101) of students did not think negatively of online classes. Yet, to add balance and scientific rigour, the same argument could easily be amended to show that 80% (n=198) of students might have thought that online classes were not as good as classroom-based ones.

The survey indicated that students did retain privacy concerns, although more related to misgivings that aspects of their homelife might accidentally be exposed, causing them embarrassment. What was less of a concern was the desire to hide facial features through avatars or digital additions as offered by companies such as Zoom. The unknown quantity regarding this research is whether students' feelings would change towards the use of virtual backgrounds if IOL classes became a permanent fixture on their timetables.

## CONCLUSION

The research in this paper offers a snapshot into a new phenomenon – interactive online learning classes conducted during a pandemic using videoconferencing technology. One survey conducted over a short period of time at one university with a sample size of 246 respondents should never form the basis for any definitive findings. Clearly further research is required to substantiate any of the findings highlighted in the survey. However, the data do indicate that students retain privacy concerns regarding access of others into their homelives via an online class. Yet, encouragingly for continued use of online classes, the results do not indicate that there are major concerns that students are worried that their privacy has been significantly infringed upon.

Virtual backgrounds seem a convenient way in which to best preserve a student's privacy, but some thought must be given over to those class participants who wish to conceal their facial features. Ultimately, identification of each class member is necessary for accurate grading, and if a student's facial features are concealed for long periods of time, then the potential for issues such as cheating could become a hurdle that would need to be overcome. It seems a step too far to allow students to permanently hide their facial features during an online class, but ultimately that will be a decision for each educational institution to decide.

Yet privacy concerns do remain, and crucially may grow if IOL classes become a more permanent fixture on the timetable. Educational institutions need to formulate their own privacy guidelines that will provide students with a security that their privacy will not be impacted whilst adhering to the realities of online learning. Understanding needs to be given to those students who are anxious or uncomfortable about revealing their homelife through an IOL class situation. Ultimately, there needs to be a clear and unquestionable policy that indicates exactly what learners are able to do, or not do, whilst participating in any IOL class.

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## ABSTRACT

### **To Zoom or Not to Zoom: Privacy Concerns and Students’ Attitude Towards Interactive Online Learning**

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In unprecedented times, during the COVID-19 global pandemic, educational institutions were required to rapidly adapt to a ‘new normal’ where classes metamorphosed from a traditional classroom setting to one set in the digital sphere. Interactive online learning has become the new conduit for educators and learners and words such as ‘zoom’ became more commonly used as a proper noun rather than a verb. Yet in the rush to create a learning environment that was safe, convenient and pedagogically sound, were student privacy concerns overlooked? Has students’ privacy been sacrificed for the need to quickly move classes online? This paper shows the results of a survey conducted at a national university in Japan which analysed student responses as to whether their privacy was being unnecessarily infringed by online classes. The results showed that students remained wary of an untoward invasion into their privacy whilst participating in online classes but were not overwhelmingly concerned by the use of live-streaming videoconferencing. Yet, the survey also indicated that if online classes were to become a permanent addition to their university timetable, then students indicated a wish for clearly defined privacy policy parameters to be adopted.

## 要 約

### Zoom すべきか否か：プライバシーの逆説と 双方向オンライン学習に対する学生の態度

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前例のない時代、新型コロナウイルスの世界的パンデミックの間に教育機関は「新しい日常」に迅速に適応することを求められた。そこでは、授業は従来の教室の設定からデジタル領域へと姿を変えた。「双方向オンライン学習」は、教育者と学習者にとっての新しいパイプとなり、「Zoom」などの言葉は、動詞ではなく固有名詞としての使用がより一般的となった。しかし、安全で便利、かつ教育学的にも適切な学習環境を早急につくり出すにあたり、学生のプライバシーに関する懸念は無視されたのだろうか。授業を迅速にオンラインに移行する必要があったために、学生のプライバシーが犠牲にされてきてはいないだろうか。本論文では、日本の国立大学で実施され、学生のプライバシーがオンライン授業によって不必要に侵害されたかどうかについての学生の反応を分析した調査の結果を示す。その結果では、学生はオンライン授業に参加しながら予想外のプライバシー侵害に用心し続けているが、生配信のテレビ会議の使用についてはそこまで深刻に心配していない、ということがわかった。しかし、オンライン授業が永続的に学生の大学生活の一部になるのであれば、学生は明確に定義されたプライバシーポリシーの範囲が採用されることを望む、ということもこの調査は示した。