

Observations on the use of Computer-Aided Language Learning (CALL) and Computer-Mediated Communication (CMC) within a National Japanese Arts University amid the Covid-19 pandemic

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The rapid growth of technology in the last two decades has been a salient factor in the way we communicate, specifically with emails, social networking services (SNS), smartphones, and the internet. CMC has also become more facile and advanced technical knowledge and skills are no longer required. In addition, access to Wi-Fi connection has improved with many Japanese educational institutes providing free internet access within schools and universities. When the first studies of CALL were published in the late '90s, technology was limited whereby synchronous modes of communication (SCMC) were conducted in chat rooms in language laboratories, Internet Relay Chat (IRC) required an IRC client, and email required a mailer system. Recently, online video conferencing on platforms such as Zoom, Facetime, and Google Meet are easily utilized, providing similar experiences to that of face-to-face communication where we can see facial expressions and gestures. Thus, technology now offers opportunities to create virtual environments for online courses and an opportunity for social interaction to promote learner autonomy. Many educational institutes opted to continue courses online due to a worldwide pandemic; COVID-19, in 2020, and 2021. Therefore, the use of technology such as the internet, video conferencing, and online educational tools had to be implemented swiftly not only to continue lessons but to ensure the safety of students, teachers and staff at the majority of universities in Japan. The decision was problematic in that some universities, teachers and students were not familiar with or trained to use the available technology. This paper will look at the results and feedback from questionnaires regarding the implementation of online classes and the implications of curriculum design in the aftermath of the COVID-19 pandemic. The data were collected from art and music students attending the Training Center for Foreign Languages and Diction (TCFLD) within a Japanese arts university. The

students were in their first semester of the second year of online classes. Data were also taken from teachers of English, French, and German.

Background of CALL and CMC

1990s. In the 1990s research on CALL was limited due to the lack of technology available in educational institutes for teachers and students. However, early research indicated that CMC supported the language learning environment. The studies (Chun, 1994) suggested that using computers for pedagogical purposes was effective for increasing the interactive competence of language learners. Students given the opportunity to interact with the teacher and students in a natural, communicative situation could manage discourse through starting conversations, expanding on topics, turn-taking, and giving feedback. Also, other studies asserted that the computer serves the role of a tool and a resource for students to access information (Crook, 1994; Levy, 1997; Kern and Warschauer, 2000). These studies also found SCMC comparable to face-to-face discourse and a possible 'facilitator for communicative competence' (Kelm, 1992; Beauvois, 1992; Chun, 1994; Kern, 1995 and Warschauer, 1996). Furthermore, early research and studies (Althaus, 1997) have shown that supplementing face-to-face discourse with online interaction can elevate the traditional classroom environment. However, Garrett (1991) observed that there was a lack of support and investment from university departments for CALL in the 1990s. The fast-paced development of technology at that time meant that expensive equipment quickly became outdated or even obsolete. Moreover, teachers were also wary of new technology and felt that they lacked the skills to use the computers and the software. By the end of the 1990s research on CALL focused on communication through typed text such as text chat for delayed or asynchronous CMC (ACMC) and simultaneous or synchronous CMC (SCMC) (e.g. Negretti, 1999).

2000s. In the early 2000s it was apparent that online communication was quickly developing with easier access to web-based technology and the internet. CALL could now be implemented easily, however, teachers also had to invest their time in planning and adapting to this new language learning environment. This rapid advance of technology according to Herring (2001, 2003c) posed the question of how and to what extent will technology transform human communication. By the late 2000s, Social Networking Services (SNS) such as Facebook and Twitter had become popular on a global scale as a method of communication and social interaction on the internet. Initially,

Facebook was associated with higher education, used mostly by college students, but is now one of the most well-known SNS. As new modes of content management systems (CMS) became accessible, there were abundant studies into the benefits for both teachers and learners in the application of technology in the classroom and distance teaching/learning. It was suggested that SNS, as an educational tool, could enhance language learning courses (Collins & Ellison, 2009) and motivate students to use a second language (L2) outside the classroom environment. Although a review of SNS use in education reported an increase in sharing of knowledge and information, concerns such as invasion of privacy and social space were expressed. It was also noted (Donlan, 2012), that student-initiated groups were more successful in the number of interactions than teacher-initiated groups. The increase in teachers using technology within classes also highlighted the need to support them. Teachers who were not so proficient in the use of technology could join free workshop groups, as reported by D'Eça, T. & González, D. (2006) of their free workshop for international teachers. In addition to the creation and adaptation of teaching material, they found that placing teachers in the position of online students was beneficial to enhancing their online teaching experience. Furthermore, researchers found that teachers needed 40% more time to create materials and implement online courses (Bender, 2003). It also became apparent that educational institutes required user-friendly Learning Management Systems (LMS) such as Moodle, Blackboard, and Manaba to manage courses.

2010 onwards. Web-based technology now plays a crucial role in CMC and advanced IT skills are less of a hurdle for teachers and students to utilize CALL. Easy access to technology has also seen an increase in instructors implementing technology as a tool for setting tasks and creating content in addition to face-to-face classes. This blended learning (b-learning) approach in language learning courses complements one-mode classes such as face-to-face or CALL (Ducate & Lomicka, 2005; Harker & Koutsantoni, 2005; Hegelheimer, 2006; Hertel, 2003; Thorne, 2003). B-learning is defined as the integration of online and face-to-face instruction (Graham, 2013), two different but complementary modes with a flexible approach to learning. It has become the “new normal” in higher education course delivery (Norberg et al. 2011, p.207). As the COVID-19 pandemic caused global disruption, technical companies such as Google and Zoom took the opportunity to develop products specifically for online education and communication. Google Suite for Education, renamed Google Workspace for Education, is a collection of computing, conferencing, productivity and collaboration tools, and software, available on the cloud. It provides innovative ways to incorporate not only ACMC but SCMC through the video conferencing

tool which has now become omnipresent in educational, business, and social settings.

The Teaching and Learning Context.

The TCFLD is affiliated with the Faculty of Music and supports students who intend to study abroad, attend classes with foreign professors, perform on stage in foreign languages, take language proficiency tests, and generally want to improve their language skills. Art students can also attend these classes. The English language courses range from high-advanced level (HA) Practical English classes with a focus on Academic English to high-level (H) and intermediate-level (I) conversation classes. There are also German, Italian, and French language courses including conversation and pronunciation classes. The students have a wide range of competency levels and tend to be highly motivated learners because of their need for other languages in their future careers.

The TCFLD has been set up in recent years so that students have access to iPads or Mac and personal computers as well as a free Wi-Fi connection in class. Teachers are provided with computers and equipment to carry out their lessons and course duties. When COVID-19 prompted online classes to be held, one classroom in the department was available for the students with free Wi-Fi and support from administrative staff. The online courses have been carried out for three semesters. Some practical music and art classes, concerts, and exhibitions were being held on campus during the semester and therefore some students had to take the online classes within the university or nearby cafes. The students were asked to reserve a place in the designated room up to one day in advance to take the online class on campus. Another lecture hall was also available for online classes in another part of the campus. The online English courses were carried out on Google Classroom on Google Workspace for Education. Google Classroom was efficiently set up by the university and administration staff. Some teachers were using Google Classroom before the COVID-19 pandemic and initially, a Google Classroom workshop had been set up for teachers who were contemplating its use. However, the onset of the pandemic became the impetus for all teachers to utilize the Google Workspace platform for their courses. The management of tasks and activities was easily accessible for both students and instructors. The students' and teachers' university emails were automatically connected to the Google Classroom system and files were saved into respective course folders and students could receive information and announcements on the class stream in Google Classroom.

The Courses. The English courses are topic-based and learner-centered. At the start of

the courses, the students were asked to upload a video introduction onto the Flipgrid website. The Flipgrid platform allows students to watch other students' introduction videos and leave a response. Another site, Padlet, was used to upload their written introduction, a photograph and leave each other comments. This provided students the opportunity to acquire and practice varied communicative skills and at the same time make a connection with each other in a social context. Tasks included writing and reading out journals on topics of their choice using a combination of APMC and SCMC. In Google Classroom, the teacher could access Google Docs, and suggestions or corrections could be made easily. This asynchronous interaction allowed students to take note of metalinguistic issues and the production of language in their own time. Students could check and edit their work online before reading out in online class in real-time on the Google Meet video conferencing application software. Students were encouraged to ask questions and interact with each other with their cameras on. Compared to previous studies, where SCMC was carried out through instant Chat or email, real-time online video classes provide a more authentic environment similar to face-to-face communication. It also serves as a catalyst for socially constructed knowledge and understanding (Snyder & Palmer, 1986; Papert, 1993; Winograd & Flores, 1988) and the support to encourage collaborative activity, enabling integration of authentic and autonomous communication. As an introduction to topics, links to videos and quizzes were uploaded onto the classroom stream throughout the course. These tasks could be completed before class in their own time. At the end of the course, a presentation in real-time was given using Powerpoint, Keynote, Google Slides or Google Earth.

Participants. There were a total of 18 students who answered the questionnaires. All the students were studying English. They were divided into the following levels of language competency: 5:High-Advanced, 5:High, 8:Intermediate. Five of the students were in the first year of their course. A total of two teachers responded: 1 French and 1 German. The class size ranged from four to 14 students per class.

Methodology. Data were collected from questionnaires taken online through Google Forms at the end of the first semester of the English courses. The links were uploaded into the chat section during real-time classes in Google Meet and then onto the Google Classroom Stream at the end of the semester. Another separate questionnaire link was shared with teachers online. Six main questions about the use and effects of CALL and CMC were presented on a 5-point Likert type scale (1 = *not at all* to 5 = *Yes, very much*). Multiple choice and checkbox questions were also used. The feedback on the positive and negative experiences of the courses was qualitative with open-ended questions and

descriptive observations. The teachers had a separate questionnaire with more open-ended questions to extract more detailed information on their observations.

Results/Feedback

Students. The majority of students felt that they were skilled or skilled to some extent with computers and technology and all had access to computers, a tablet or a smartphone for the course. Almost all adapted to online classes except one student who had used an iPad and found it difficult to complete some of the tasks. Although more than fifty percent of the HA-level students did not report making social connections, almost all I and H-level students did. Communicating with others was also more successful in the I and H level. It was noted by Sproull and Kiesler (1991) after reviewing six studies that CMC has a strong equalizing effect and a more balanced participation level than in face-to-face classes where high-level students tend to dominate. In other studies of CMC an increase and balance in participation and autonomous discourse was seen as beneficial to low-level and shy students (Kelm, 1992; Beauvois, 1992; Chun, 1994; Kern, 1995 and Warschauer, 1996). This was evident in the larger I-level class where students with lower-level English could participate easily online. Alternatively, all HA-level students preferred face-to-face classes but would consider a combination of face-to-face and real-time online classes. Only one chose a combination of face-to-face classes with asynchronous classes. The majority of H-level students wanted a combination of face-to-face and synchronous and asynchronous online classes. Only one wanted face-to-face classes only. Almost all the I-level students in the large class, of 14 students, wanted online or a combination of face-to-face and online classes. However, the smaller I-level class, of two students, wanted face-to-face classes because they had made a strong social connection in the online classes.

Teachers. Two teachers responded to the questionnaire. Both teach conversation with pronunciation classes and had previously used some form of technology in their courses. Both had skills in using computers and one had already implemented Google Classroom, Google Docs and a website in their course and transitioned into online teaching effortlessly. The other teacher had not used Google Workspace for Education before and found the new skills and online tools useful. However, preparation was time-consuming and overall online teaching had caused physical deterioration. Both felt there was a lack of communication with the students and they did not feel that online classes enabled real conversation and that oral practice was lacking. Both teachers expressed the desire to

incorporate online tools into their face-to-face courses and would consider a combination of face-to-face classes with online classes. However, one expressed that they would also like to return to face-to-face classes only.

Advantages and Disadvantages. The enforced implementation of technology in the courses provided an impetus for teachers and students to utilize new ways of CMC and CALL. Prior to the pandemic, students were often required to attend training, rehearsal and research sessions and could not complete tasks well for the language courses. However, the technological tools implemented in the course allowed students to complete assignments and tasks whilst still satisfying the demands of other courses. In Table 1 we can see an overview of responses of both students and teachers when asked about the benefits and problems they experienced during the semester. Students, especially those who had a long commute, stated that they could study in a relaxed state from home. They did not have to travel far and could avoid being infected by COVID-19. Furthermore, they could see the other students' faces and felt less isolated and could communicate with others. Alternatively, the main problem faced by students and teachers was the Wi-Fi internet connection. At the beginning of the pandemic, the three major mobile carriers announced that they would provide 50 gigabytes of internet data for free to students to support online education. Then in 2021, following calls from the Japanese government to lower mobile fees, the main wireless carriers in Japan reduced the cost for users to connect to the internet. However, students who used the free Wi-Fi internet at the university had issues with connectivity, audio, and cameras turning off especially in the larger class. Some students who had forgotten to reserve a place in allocated rooms resorted to attending from cafes or a room within their own department. Unfortunately, this meant there would be distractions and noise from other students nearby.

Table 1. *The Benefits and Problems of Online Classes.*

Benefits	Problems
Could study in a relaxed environment (S)	The Wi-Fi and internet connection was unreliable (S, T)
Could study at home (S)	Sometimes there were technical problems with the computer (S)
Could study anywhere (S)	The camera turned off due to poor connectivity (S)
Did not need to commute (S)	Some tasks were difficult to do (S)
Watch useful videos shared by the teacher (S)	Social isolation and loneliness (S, T)
Could concentrate on the conversation (S)	Could not speak face-to-face and therefore difficult to communicate naturally (S, T)
Could see other students' faces (S)	Physical deterioration (T)
Could access and read documents easily (S, T)	Forgot to unmute (T)
Could share the screen for presentations (S, T)	
Learned about new online tools (T)	

Note. S for students and T for teachers.

Discussion.

The online classes have allowed, to some extent, for a near authentic face-to-face learning experience with synchronous online video conferencing. However, it is evident from the responses shown in Table 1 that problems such as Wi-Fi connection or technical glitches were prevalent and lacked the authenticity of a face-to-face learning environment. There will inevitably be a return to face-to-face classes, but it will also open up the opportunity for students and teachers to incorporate and increase the use of technology into their language learning courses. Before the COVID-19 pandemic, there was a progressive trend towards b-learning in the language learning environment with technology being available, affordable, and easy to use. The combination of technology and face-to-face classes or b-learning can be incorporated into courses with no specific theory of learning or framework and instead used as a substitution for a part of a face-to-face class or it can be implemented as part of a planned curriculum design. The latter method includes the flipped approach in b-learning which refers to switching higher-order tasks to lower-order tasks taken from Bloom's Taxonomy, a hierarchical framework applied in education (Bloom, 1956). The flipped classroom or 'inverted' classroom (Lage et al, 2000) is the reversal of the traditional lecture classroom. This means lectures or information that would be normally given in face-to-face classes would be accessible before or outside of class. Students can gain knowledge and understanding in their own time and at their own

pace. Learner-centered activities that were traditionally given as homework are then brought into the face-to-face classroom. It is a strategy to increase student autonomy and participation in face-to-face classes where higher-order tasks are involved. Those higher-order activities would include applying the knowledge gained and progress to analyzing, evaluating and finally creating output. This approach is based on cognitive load theory whereby new learners are overloaded with information and new ideas, and in turn initiates surface learning (Darabi and Jin, 2013; Seery and Donnelly, 2012). Research has shown that this b-learning approach increases the students' sense of community (Rovai and Jordan, 2004) and satisfaction and success (Dziuban and Moskal, 2011; Dziuban et al. 2011; Means et al. 2013). It has also been noted that to initiate b-learning in course curriculum planning, institutional support is of great importance (Moskal et al. 2013; Dringus and Seagull, 2015; Picciano 2009; Tynan et al. 2015).

Conclusion.

This paper has reported on the observations and outcomes of online classes of language learning courses in a Japanese university during the COVID-19 pandemic. Feedback from teachers and students has shown that they have benefited from CALL in various ways. It has allowed students to complete tasks and communicate with others at a time when physical distancing has been paramount to stop the spread of COVID-19. Furthermore, teachers and students have become proficient and comfortable with the use of new technological tools for language learning. Technology and information communication technologies have blended our world. Floridi (2014) likens the world to a biosphere of information or 'infosphere'. Our world is shifting from physical and static to an interactive state. However, it is important to remember that technology should be a support for face-to-face interaction rather than a replacement. As we get accustomed to a blended world, it seems a natural progression for b-learning to become an intrinsic component in language learning curriculums. In particular, a flipped b-learning approach, which would allow teachers to be a 'guide on the side' and provide students an autonomous learning environment.

References

- Althaus, S. L. (1997). Computer-Mediated Communication in the University Classroom: An Experiment with On-Line Discussions, *Communication Education*, 46, 158-174.
- Beauvois, M. H. (1992). Computer-assisted classroom discussion in the foreign language classroom: Conversation in slow motion. *Foreign Language Annals*, 25(5), 455-465.
- Bender, Diane. (2003). Interior Design Faculty Intentions to Adopt Distance Education. *Journal of Interior Design*, 29.
- Bloom, B. S. (1956). Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. New York: David McKay Co Inc.
- Chun, D. M. (1994). Using computer networking to facilitate the acquisition of interactive competence. *System*, 22(1), 17-31.
- Collins, K. S. & Ellison, T. M. (2009). University Students using a Social Network Service: Feedback, Observations, and Outcome. *Journal of Liberal Arts and Sciences*. Kitasato University, 14.
- Crook, C. (1994). *Computers and the collaborative experience of learning*. London: Routledge.
- Darabi, Aubteen & Jin, Li. (2013). Improving the quality of online discussion: the effects of strategies designed based on cognitive load theory principles. *Distance Education*. 34.
- D'Eça, T., & González, D. (2006). Becoming a Webhead: Bridging the Gap from Classroom to Blended or Online Teaching. *CALICO Journal*, 23(3), 569-580. Retrieved August 31, 2021, from <http://www.jstor.org/stable/24156358>
- Donlan, L. (2012). Exploring the views of students on the use of Facebook in university teaching and learning. *Journal of Further and Higher Education*, 38: 4, 572-588. Retrieved August 3, 2021, DOI: 10.1080/0309877X.2012.726973
- Dringus, L. P., and A. B. Seagull. (2015). A five-year study of sustaining blended learning initiatives to enhance academic engagement in computer and information sciences campus courses. In *Blended learning: Research perspectives*. Vol. 2. Edited by A. G. Picciano, C. D. Dziuban, and C. R. Graham, (pp.122-140). New York: Routledge.
- Ducate, L. C., & Lomicka, L. L. (2005). Exploring the blogosphere: Use of web logs in the foreign language classroom. *Foreign Language Annals*, 38, 410-421.
- Dziuban, C., Hartman, J., Cavanagh, T., & Moskal, P. (2011). Blended courses as drivers of institutional transformation. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation*, (pp.17-37). Hershey: IGI Global.

- Dziuban, C., & Moskal, P. (2011). A course is a course is a course: Factor invariance in student evaluation of online, blended and face-to-face learning environments. *The Internet and Higher Education*, 14(4), 236-241.
- Floridi, L. (2014). *The 4th revolution: How the infosphere is reshaping human reality*. Oxford: Oxford University Press.
- Garrett, N. (2009). Technology in the Service of Language Learning: Trends and Issues. *The Modern Language Journal*, 93, 697-718. <http://www.jstor.org/stable/25612269>
- Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of distance education*, (3rd ed., pp.333–350). New York: Routledge.
- Harker, M., & Koutsantoni, D. (2005). Can it be as effective? Distance versus blended learning in a web-based EAP programme. *RECALL*, 17, 197-216.
- Hegelheimer, V. (2006). Helping ESL Writers Through a Multimodal, Corpus-based, Online Grammar Resource. *CALICO Journal*, 24(1), 5-32. Retrieved August 30, 2021, from <http://www.jstor.org/stable/24156292>
- Hertel, T. J. (2003). Using an e-mail exchange to promote cultural learning. *Foreign Language Annals*, 36, 386-396.
- Herring, S. C. (2001). 'Computer-mediated discourse', in D. Schiffrin, D.Tannen and H. Hamilton (eds) *The Handbook of Discourse Analysis*, (pp.612-34). Oxford: Blackwell.
- Herring, S. C. (2003c). 'Computer-mediated Discourse Analysis: an Approach to Researching Online Behavior', in S. A. Barab, R. Kling and J. H. Gray (eds) *Designing for Virtual Communities in the Service of Learning*. New York: Cambridge University Press.
- Kelm, O. R. (1992). The use of synchronous computer networks in second language instruction: A preliminary report. *Foreign Language Annals*, 25(5), 441-454.
- Kern, R. G. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *The Modern Language Journal*, 79(5), 457-476.
- Kern, R., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 1-19). New York: Cambridge University Press.
- Lage, M. J., Platt, G. J., & Treglia, M. (2000). Inverting the classroom: A gateway to creating an inclusive environment. *The Journal of Economic Education*, 31, 30-43.
- Levy, M. (1997). *Computer assisted language learning: Context and conceptualization*. New York: Oxford University Press.
- Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record*, 115(3), 1-47.

- Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea? *The Internet and Higher Education*, 18, 15-23.
- Negretti, R. (1999). Web-based activities and SLA: a conversation analysis approach. *Language Learning & Technology*, 3 (1), 75-87.
- Norberg, A., Dziuban, C. D., & Moskal, P. D. (2011). A time-based blended learning model. *On the Horizon*, 19(3), 207-216. <https://doi.org/10.1108/10748121111163913>.
- Papert, S. (1993). *The children's machine: Rethinking school the computer*. New York: Basic Books.
- Picciano, A. G. (2009). Blending with purpose: The multimodal model. *Journal of Asynchronous Learning Networks*, 13(1), 7-18.
- Rovai, A. P., & Jordan, H. M. (2004). Blended learning and sense of community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning*, 5(2), 1-13.
- Seery, M. & Donnelly, R. (2012). The implementation of pre-lecture resource reduce in-class cognitive load: A case study for higher education chemistry. *British Journal of Educational Technology*. 43. <https://doi.org/10.1111/j.1467-8535.2011.01237.x>
- Snyder, T., & Palmer, J. (1986). *In search of the most amazing thing: Children, education and computers*. Reading, MA: Addison-Wesley.
- Sproull, L. & Kiesler, S. (1991). *Connections: New Ways of Working in the Networked Organization*. Cambridge, MA: Massachusetts Institute of Technology.
- Thorne, K. (2003). *Blended learning: How to integrate online & traditional learning*. London: Kogan Page.
- Tynan, B., Ryan, Y., & Lamont-Mills, A. (2015). Examining workload models in online and blended teaching. *British Journal of Educational Technology*, 46(1), 5-15.
- Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, 13(2&3), 7-26.
- Winograd, T., & Flores, F. (1988). *Understanding computers and cognition: A new foundation for design*. Reading, MA: Addison-Wesley.

Appendix

Table 2 *Likert type scale Questions and Feedback*

Q. 1. Do you consider yourself skilled at computer technology?	Not at all	Somewhat	Neutral	Yes	Yes, very much
Percentage (%) of HA level students surveyed	0%	20%	20%	60%	0%
Percentage (%) of H level students surveyed	0%	40%	20%	40%	0%
Percentage (%) of I level students surveyed	0%	12.5%	50%	25%	12.5%

Q. 2. Do you think that you have adapted well to online learning?	Not at all	Somewhat	Neutral	Yes	Yes, very much
Percentage (%) of HA level students surveyed	0%	0%	0%	80%	20%
Percentage (%) of H level students surveyed	0%	0%	0%	80%	20%
Percentage (%) of I level students surveyed	0%	12.5%	12.5%	37.5%	37.5%

Q. 3. Did you feel that you could do the tasks easily?	Not at all	Somewhat	Neutral	Yes	Yes, very much
Percentage (%) of HA level students surveyed	0%	20%	20%	60%	0%
Percentage (%) of H level students surveyed	0%	40%	40%	20%	0%
Percentage (%) of I level students surveyed	0%	12.5%	12.5%	37.5%	37.5%

Q. 4. Did you spend a lot of time for the tasks or assignments for online (language) classes?	Not at all	Somewhat	Neutral	Yes	Yes, very much
Percentage (%) of HA level students surveyed	0%	0%	40%	60%	0%
Percentage (%) of H level students surveyed	20%	0%	40%	40%	0%
Percentage (%) of I level students surveyed	0%	12.5%	12.5%	50%	37.5%

Q. 5. Did you feel you could communicate more with others in online classes?	Not at all	Somewhat	Neutral	Yes	Yes, very much
Percentage (%) of HA level students surveyed	20%	20%	20%	20%	20%
Percentage (%) of H level students surveyed	0%	40%	40%	20%	0%
Percentage (%) of I level students surveyed	0%	12.5%	25%	25%	37.5%

Q. 6. Did you feel you could make a social connection with others in online classes?	Not at all	Somewhat	Neutral	Yes	Yes, very much
Percentage (%) of HA level students surveyed	20%	40%	20%	0%	20%
Percentage (%) of H level students surveyed	0%	20%	60%	0%	20%
Percentage (%) of I level students surveyed	0%	37.5%	12.5%	25%	25%

Note. HA = Higher Advanced, H = High, I= Intermediate

コロナ禍の東京藝術大学におけるコンピューター支援言語学習（CALL）とコンピューター媒介型コミュニケーション（CMC）の使用に関する考察

コリンズ、キム・ソノコ

過去 20 年ほどで日本の大学は言語教育や学習の文脈でテクノロジーの使用を進めてきた。先行研究では、コンピューターを異なる通信モードを有効にする「ツール」として捉え、コンピューター支援言語学習（CALL）とコンピューター媒介型コミュニケーション（CMC）使用の肯定的な結果を示唆している。これらの研究は、対面によるコミュニケーションとテクノロジーを断続的に使用し、ブレンディッドラーニング（b-learning）として組み合わせる事ができる状況下で実施されている。CMC が使用される頻度は教育機関によって異なる。多くは、これらのテクノロジーの使用能力や、教員及び学生の好み、カリキュラム上の要件、そして、教育機関における資源や支援体制のあり方に依拠している。世界的な感染症拡大とそれによる対面授業実施の制約により、教員及び学生の選択は劇的に変化した。

本論は、新型コロナウイルス感染症蔓延によって、CALL や CMC での実施を余儀なくされた同期型及び非同期型のオンライン授業が教育や学習環境にどのような影響を与えたのかを明らかにする。さらに、教員及び学生がオンラインクラスやテクノロジー、そして、その結果の実践にいかにして適応していったのかについても検証する。他の外国語教員と英語中上級レベルの学生を対象とした短期調査を分析し、考察を深めた。歴史上前例のない現在の緊急事態において、教員及び学生が直面した変化及び諸課題について考察を深めた本論は、将来の学習及び教授環境を改善するための提案や推奨をもたらさう。新型コロナウイルス感染症蔓延の余波として、コンピューター媒介型コミュニケーション（CMC）と対面授業又はブレンディッドラーニング（b-learning）の組み合わせが、大学の授業において広く普及する事が示唆できる。