## **Exploring Online Art Education: Multi-Institutional Perspectives and Practices**

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#### Abstract

How can art educators transmit their passion and enthusiasm for art teaching and learning to cultivate human potential in the virtual classroom? As a collective case study focusing on our online undergraduate courses, this research examines how two instructors used instructional methods and technologies, and how their students responded to their pedagogical endeavors. Qualitative content analysis was utilized. Virtual art classes can encourage students to look into themselves and become more aware of themselves. Communicating and feeling connected to others are critical for students in online settings. As demonstrated in our course design, connectivity between students and instructors can be facilitated through a multi-layered structure, providing for more efficient communication. This study also found blurred boundaries between real and virtual learning environments. When we facilitate fluidity and conceptual flexibility as online art educators, digital technologies may expand our thinking and expression frameworks.

#### Resumen

¿Cómo pueden los profesores de artes transmitir su pasión y entusiasmo por la enseñanza y el aprendizaje de las artes a fin de cultivar el potencial humano en el aula virtual? Como un estudio de caso colectivo que se centra en nuestros cursos de grado en línea, esta investigación examina cómo dos instructores utilizaron métodos y tecnologías de instrucción, y de qué manera respondieron sus estudiantes a sus esfuerzos pedagógicos. Se utilizó el análisis cualitativo del contenido. Las clases de artes virtuales pueden alentar a los estudiantes a que se miren a sí mismos y se vuelvan más conscientes de sí mismos. Comunicarse y sentirse conectados con los demás es fundamental para los alumnos en los entornos virtuales. Como se demuestra en nuestro diseño del curso, la conectividad entre estudiantes y profesores se puede facilitar a través de una estructura de múltiples capas, lo que proporciona una comunicación más eficiente. Este estudio también encontró límites imprecisos entre los entornos de aprendizaje reales y virtuales. Cuando facilitamos la fluidez y la flexibilidad conceptual como educadores de artes en línea, las tecnologías digitales pueden expandir nuestros marcos de pensamiento y expresión.

Art class... online? A column by Ronda Sternhagen that was featured in the March 2013 edition of National Art Education Association (NAEA) Monthly Mentor led with this question as its title (Sternhagen 2013). In the posting, Sternhagen, an experienced high school art teacher, stated that she was speaking with her principal about the possibility of holding an art class that was exclusively online. She noted that many of her readers probably questioned the validity of an online art class with this concern: 'But that is not art class. Art class is about human interaction and expression' (Sternhagen 2013: para. 2). Sternhagen's anticipation of this negative response suggests that at the time of her writing, many art teachers felt reluctant to embrace virtual art education. However, since the outbreak of COVID-19, the educational landscape has swiftly and radically changed. Due to the pandemic, most K-16 art educators have started teaching visual art online in the United States, and this trend seems to be widespread across the globe.

This article examines the following question: How can art educators transmit their passion and enthusiasm for art teaching and learning to cultivate human potential in the virtual classroom? As art educators who teach in the U.S., we met in 2013, which was the first author's sixth year and the second author's third year teaching art education courses online. We exchanged information with e ach other about online teaching. Eventually, we developed a shared interest in conducting research that investigates the ability of virtual art education to unlock human capabilities. In terms of human potential that can be cultivated in the classroom, Gardner (2020) highlighted 'various human cognitive capacities' (13) when investigating students' capabilities to learn lesson content, find motivations to improve their academic performance and eventually grow to become empowered citizens. According to Leonidova (2019), critical components of human potential include 'intellectual, creative, communication based, value-based, and activity' (174). We also find it to be important to connect human

potential to developing cognitive capabilities within diverse social interactions. In relation to these social interactions, the 'capability approach' (Sen Amartya, 2005, as cited in Rogach et al. 2018: 805) can promote the empowerment of digital citizenship in students.

Based on these definitions of human potential, we specifically explore three aspects of learning behaviors and environments within this study. First, we focus on students' self-discovery, self-directed learning and self-efficacy. Second, we investigate the concepts of connection and communication, which are integrated into the virtual classroom. Lastly, we explore the unique characteristics of the educational environment for virtual teaching and learning. As a collective case study focusing on our online undergraduate courses, this research examines how we used instructional methods and technologies, and how our students responded to these pedagogical endeavors. We end this article by connecting our findings to systems theory and providing suggestions for other art educators who are interested in strengthening their online instructional strategies and class interactions.

## **Practices of Online Art Education**

Online art educators have adopted various online instruction approaches to promote positive educational experiences and to overcome art teachers' resistance against e-learning (Castro 2014; Díez-Gutiérrez and Gajardo Espinoza 2021; Hubard 2020; Keifer-Boyd et al. 2018; Manifold 2019; Neto et al. 2018; Quinn 2011). Collins and Sullivan (2020) suggested that in practicing pedagogical initiatives, today's art educators need to revisit the ever-changing status of knowledge within the digital age and the development of virtual learning communities toward creative and critical inquiry. Exploring an online art appreciation course, Atkins et al. (2004) questioned if virtual pedagogy has capacity to democratise the educational practices of teachers and students.

Lai and Ball (2004) and Hubard (2020) linked culturally relevant pedagogy to distance education and discussed how students could become cultural subjects while conducting asynchronous course activities. Focusing on virtual studio teaching, Quinn (2011) and May (2011) explored strategies to promote college students' collaborative activities. New challenges in a digital realm provide art educators with the need to re-examine their pedagogical practices, including those associated with instruction, student interaction and assessment (Song et al. 2021). To discuss the characteristics of specific instructional approaches and learning activities that take place in virtual environments, in the following section, we approach online art education as a kind of system.

## Online Art Education as a System

In our endeavor to conceptualise online art education, we utilise systems theory from Dechant and Dechant (2010), who approach online education as an open system. Within the system, components such as 'culture/environment, people, structure, and processes/technology' are connected to and support each other (292). Inspired by their systems theory, we identify six elements that are mutually interactive, based on our online teaching experiences: instructor, student, community, cultural environment, content and technology. The following sections explore three aspects of online art teaching and learning that effectively implement the six elements: connecting students' selves to learning content and processes (student, cultural environment and content); connection and communication (instructor, student, community and technology); and blurred boundaries between the real and the virtual (cultural environment, content and technology).

**Connecting Students' Selves to Learning Content and Processes** 

In online environments, individual students may have opportunities to concentrate on and rediscover themselves. Providing opportunities for students to explore and construct new knowledge of themselves plays a crucial role when we endeavor to create an online classroom where students' potential is fully cultivated. Constructing the concept of self includes an awareness of self and reflected self, which emerges through social interactions (Craven 2008). Zhan and Mei (2013) indicated that developing a positive self-concept affects psychological learning satisfaction and educational achievement.

Psychological learning satisfaction is conceptually related to self-efficacy, which refers to an individual's belief that they have the competence to complete the work assigned (Bandura 2010). Facilitating self-efficacy for students helps them grasp learning content and find strong motivations in the processes (Thai et al. 2020). Castro (2014) reported that in online art education, each individual student's self-expression and self-efficacy are supported through e-learning activities, such as selecting, viewing, reading and posting text and images.

A student's self-directed learning plays a critical role in distance education, whereby students can become more deeply aware of themselves by focusing on their own needs and learning processes (Arghode et al. 2017). Effective virtual teaching can help students make connections between their personal experiences and perspectives along with their grasp of academic content (Lohr and Haley 2018). Self-directed assignments can be designed to begin by focusing on students' memories before evolving to include reflective writings and the sharing of online processes. In addition, instructors can allow students to co-construct such courses through self-directed learning experiences.

## **Connection and Communication**

Turkle (2011) examined technology-based interactions among people and noticed that human relationships are changed as 'technology offers us substitutes for connecting with each other face-to-face' (p. 11). She stressed the difference between connection and communication in today's wired world and suggested that many people stay connected to each other all the time, but hardly communicate. As a result, 'cyberintimacies slide into cybersolitudes' (Turkle 2011: 16). Reconsidering the meaning and role of human breath in virtual spaces, Turkle emphasised the importance of conversations and insisted that we must strengthen our person-to-person dialogues.

Strategies for reinforcing reliable communication among students in digital learning environments include multi-layered feedback (Filimowicz and Tzankova 2017; Guasch et al. 2019) and participation in a learning community (Delmas 2017). Discussion boards facilitate active communication among students. As Ward (2018) explained, emotional engagement helps knowledge acquisition occur on an asynchronous discussion board. Social presence is a perception that one's connections to others in a community exist in reality. These strategies to implement active communications, promote social presence and offer feedback through many layers and communication channels are helpful in creating, expanding and sustaining a learning community among students, based on their ownership and motivations to maximise their learning outcomes.

#### Blurred Boundaries Between the Real and the Virtual

Today, students approach living, learning and communicating in ways that differ from those of previous generations. These differences are particularly noticeable regarding their understanding of the boundary between the real and the virtual (Ergler et al. 2016; Paiva 2015), thereby presenting new challenges for online art educators. Considering the challenges,

Chambers and Sandford (2019) noted that 'increasingly complex social landscapes play a central role in young people's negotiation and performance of identity, and that transitions within, between and across social spaces represent a challenge for educators that has perhaps not fully been appreciated' (926).

Identity formation and the experience of spaces are closely related to each other. When young people embrace multidimensional, spatialised and shifting identities and navigate transitional spaces as digital natives, the boundaries between real space and virtual space are blurred (Chambers and Sandford 2019; Jahrmann 2017; Meyer 2017). As demonstrated in the posting by Sternhagen (2013) shared in the Introduction, many experienced art educators are digital immigrants, who need to pay extra attention to digital natives who approach digital media culture in a different fashion (Meyer 2017). The division between an offline physical self and an online virtual self expands to embrace new realities and practices. One reason why digital space has great potential as an art pedagogical space is because it works in tandem with the various processes and constraints (Collins and Sullivan 2020). Similarly, Zahn (2019) discussed 'media-ecological perspectives' (80) on art and art educational practices within the digital culture.

In this context, students who study art through e-learning need to spontaneously engage with diverse realities while navigating the complex, intersecting landscape of physical space.

Based on the discussions about self-discovery in students' learning process, communication and connection, along with characteristics of digital environments and new media culture, we will explore how we teach studio projects in our online courses in the following sections.

#### Methodology

This study explores two online art educators' collective journey that has evolved into a collaborative inquiry examining 'how' and 'why' studio art projects could be taught in virtual environments. To provide 'thick description' of curricula and teaching practices that includes evidence of 'tacit knowledge' (Merriam 2015: 49), this study used a collective, descriptive case study method (Bennett et al. 2012). Its research design was inspired by case studies that explored courses researchers taught online (Han 2015; Hubard 2020; Jung 2015).

## **The Settings**

Each of us has taught at two, similar southeastern American universities. This study examines art education courses targeted toward non-art majors that were offered in 2020. Both courses focused on art education theories, lesson planning and studio projects relevant to the elementary classroom. While the first author utilised Blackboard and taught 15 students, the second author used Canvas and had 13 students in her class. The first instructor's university has a relatively long history of distance education. In fact, this is her 14th year of virtual teaching. Before coming to this university, the second instructor taught online at a different university for three years. This newer course was initially designed for face-to-face instruction. But during the COVID-19 pandemic, the university shifted all its courses to exclusively online education. The instructors utilised both asynchronous and synchronous methods of teaching and learning within these courses.

#### **Data Types and Analysis**

Qualitative content analysis was utilised to examine data sources from the two online undergraduate courses (Jung 2015; White and Marsh 2006). We collected and analysed the following data:

- Curriculum contents: Teaching notes, syllabi, project instructions, grading rubrics,
   flipped learning classroom postings, discussion board postings and video tutorials
- Learning outcomes: Students' artworks and reflection papers

We identified emerging themes and applied grounded theory with open coding (Charmaz 2001; Han 2015). We also examined interview video clips and writings of contemporary artists who use digital media, virtual communication and online course formats.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> For example, artist Pedro Lasch (2020) created an online course to collaborate with other artists and educators, as part of his artistic practice.

## **Findings**

## The Case of Borim Song

# Self-Directed Learning, Self-Efficacy and Self-Discovery

Let us start with the online teaching practice of the first author. Art making was a critical component of this course; students created six art projects. To teach studio art to non-art major students who did not have confidence in their artistic abilities, Song applied multimodal and multi-layered instruction. Figure 1 illustrates her use of the multimodal and multi-layered instruction, presenting how the various instructional forms, methods and steps were implemented to engage the students with art activities. Moreover, she posted a detailed grading rubric for each project, so the students were able to identify the project objectives and expected learning outcomes in advance. This structure for instruction and assessment seemed to have helped the students develop a plan for self-directed learning and improve their self-efficacy.



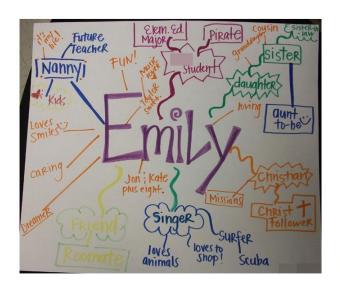
Figure 1: Art Project Creation Process. Graphic created by the authors.

This course was provided mainly asynchronously, so the students needed to come up with their own schedule to complete the assignments included in the weekly modules. As our department offers on-campus sections of the same course, these students chose this online

section based on their learning patterns. In her reflection on the course experience, one student wrote, 'I knew how to discipline myself to complete assignments and studying. I learned techniques to be productive while completing courses online' (personal communication, July 7, 2020). Although most students were successful in practicing self-directed learning and facilitating self-efficacy in their learning routine, Song had one or two students who lagged behind. She met with these students to guide them individually via Webex, a virtual conferencing tool.

Out of the six assigned art projects, four were designed to promote self-reflection and self-expression. Before working on their self-portraits, the students created a culture map,<sup>2</sup> through which they examined the various roles they play in everyday life, such as student, daughter, friend, pre-service teacher or volunteer. They then crafted a self-portrait tempera painting, expressing their characters, objects and aspects they value in their life, relationships with others and future career goals (see Figure 2). For the *My Favorite Shoes* project, students were encouraged to reflect on memories related to their shoes and highlight their character through a tempera painting.

<sup>&</sup>lt;sup>2</sup> Song learned this activity from Dr. Graeme Sullivan.



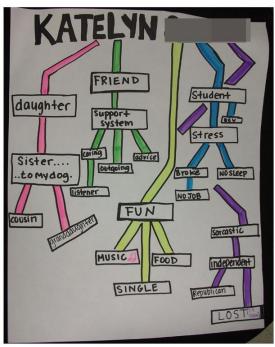


Figure 2: Culture Maps Created by the Students for their Self-Portraits, 2020. Marker drawing. Courtesy of the students.

In completing these projects, the students examined their cultural environments such as family culture and tradition, their lives in school and their relationships with friends. The art making processes that they engaged in constituted a critical filter that they applied in examining their own characteristics, habits and life goals, eventually rediscovering the kind of person that they are. One student admitted: 'I caught myself relating my life to the projects. I taught myself to think outside of the box and dig deep to really create art that meant something special' (personal communication, April 27, 2020). Figures 3 through 5 show students' *My Favorite Shoes* paintings and part of their reflections.

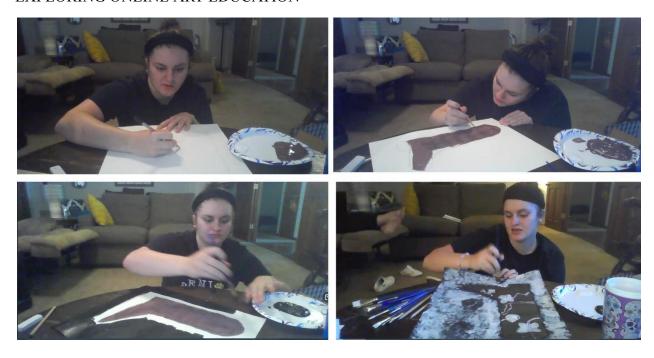


Figure 3: My Favorite Shoes Process, 2020. Video screen captures. Courtesy of the student.



Figure 4: My Favorite Shoes, 2020. Tempera painting. 14"×17". Courtesy of the student. 'What I tried to do for this project was to portray the different shades of gray of the shoes and use the

background to represent the road that have been on and that it hasn't been smooth, but rough and if I added a bright color in the background. it would have made it "happy" and having an "easy life" per say'.

# Building a Supportive Community and Learning to Respect Others

How can we encourage our students to feel excited about visual art while teaching them virtually? The solution Song found effective was to focus on providing spaces for students to receive meaningful feedback. Students appreciated the opportunities to receive her feedback shared through individual meetings and improve their work before the final submission of art projects. They also received peer feedback on their artworks. In sharing their artworks with their classmates on the discussion board forums, the instructor noticed that they supported each other's art making process. In their responses to peer work, the students expressed their thoughts and explained the rationales behind their opinions.

Students were required to participate in weekly forums. Song emphasised the importance of respecting others by offering two kinds of guidelines. The first guideline was for good netiquette and provided suggestions like 'It is fine to use humor but use it carefully. The absence of face-to-face cues can cause humor to be misinterpreted as criticism or flaming.' The second guideline was for respectful email crafting. Song provided a one-page document that listed some specific recommendations for writing professional emails.<sup>3</sup>

The value of online discussions was evident in the depth of the dialogues that took place. For example, one student wrote in her last forum posting:

When I began this class, I was very doubtful of my art skills. I...was unsure of how I would do in this class. After I got started though I actually realised that I had a lot of fun learning about all of the ways I could create work. (personal communication, November 12, 2020)

<sup>&</sup>lt;sup>3</sup> Drs. Robert Quinn and Bomna Koh shared these resources. We are grateful for their support.

Her classmate replied: 'I too learned so much about the exploration of my art skills I could journey through...I love how you said appreciation of art, I definitely feel that I gained the same thing from this class' (personal communication, November 12, 2020).

Through this process, they formed a supportive community and learned how to listen to others respectfully. Every student was required to respond to at least two classmates' postings, so even shy students shared their opinions. As a result, full participation by each individual made class discussions rich and meaningful. All of these educational experiences of collaborating in digital environments may encourage the students to reflect on the implications of digital citizenship.

#### The Interactions across the Real and the Virtual

The interactions across the real and the virtual were aspects that Song extensively explored in her course design. First, she could incorporate her accumulated knowledge and experiences attained from traditional art education practices in planning and implementing online instruction. Because Song also taught an on-campus section of this course, she had already observed how students interpreted directions and interacted when completing each activity.



Figure 5: My Favorite Shoes, 2020. Tempera painting. 'I am tired and worn. I do not have enough relaxation time to be bright-eyed and bushy-tailed... Sometimes I feel like I could have been so much more if my experiences were different. But that would be a different person; it wouldn't be me'.

Second, we used video recording as an alternative to teaching and learning physically in an art studio. When working in their own homes, students recorded their art making processes. Regarding the transition from a physical studio space to a virtual classroom, the creation and assessment components of studio art projects have evolved over the years. Twelve years ago, online students submitted a total of eight photos that captured their art creation process, due to many technical issues with videos. Eventually, the course incorporated a form of video-recording

software, such as Tegrity and then VoiceThread. Currently, this course uses Canvas Studio for art making videos.

Finally, the relationship between actual artwork and its digital image was evidently an important topic for Song as an art instructor. She initially required students to mail or drop-off their original artworks. In a sense, she did not trust the digital images of students' artwork and needed to see the original art pieces for evaluation. However, with the advancements in digital image resolution, students can now upload high quality photos of their artwork. In personally navigating these transitions, Song found the need to stay open minded and to not be afraid of embracing changes and adjustments as an educator teaching in a fast-paced world.

## The Case of Kyungeun Lim

## Reflecting on Students' Selves in Art Making and Storytelling

The goal of this course was to provide students majoring in elementary education with opportunities to explore various art genres through hand-on explorations. After switching to the online format, Lim posted clear, detailed instructions with PowerPoint slides for each project on Canvas for self-directed learning. Information about the use of digital tools was also provided to help students understand how they were expressing themselves digitally.

Each art project concentrated on the students' personal selves and lived cultural experiences. As shown in Figure 6, one example was students contemplating their memories and expressing these in various forms of art. In synchronous class meetings, they explored Joseph Cornell's (1903-1972) artworks to understand how personal memories, experiences and objects can constitute art. The Greenhouse (Figure 6) expresses the student's memory with her grandfather. This assignment enabled the students to look back and determine the most memorable and valuable experiences in their lives. Each student's work represented their own

culture and memories in visual and written ways (Figure 7). Moreover, by providing open choices of expression methods, students were able to conduct self-directed learning online.

In exploring their identity as a prospective teacher, each project also included a description of how it could be used in future classrooms. Students utilised art supplies they could find easily and presented their works through video recordings and photos. They created web pages through Adobe Spark, a tool for web page-making and graphic creations. The students also used other free website design tools, including wix.com, weebly.com, Google Classroom and Google personal sites. Canvas hosted the entire process of submitting photo/audio/video files and sharing webpage links.



Figure 6: A Digitalised Image of One Student's Work, 2020. The student created a personal collection box, took a photo, wrote an artist's statement and a short story related to the artwork. They submitted all files via Canvas.

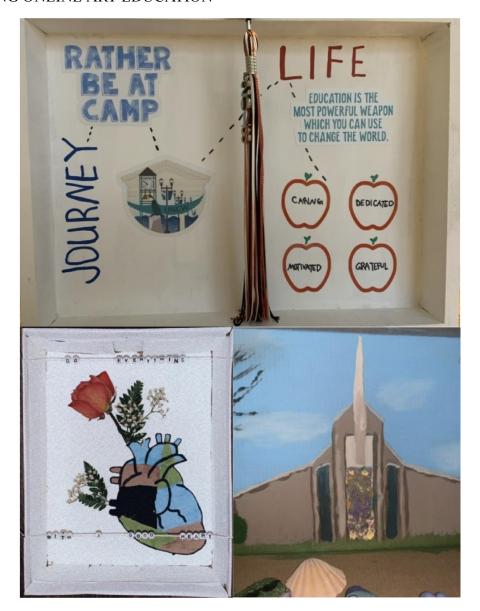


Figure 7: Digitalised Images of Students' Personal Collection Boxes. The students expressed their experiences, memories or future goals as teachers. This assignment required the students to create boxes asynchronously via Canvas and share the real boxes synchronously via Zoom.

Self-directed learning experiences encouraged students to look deeply into themselves: 'I express my personal interests because when I pull them from my mind and put them into the world, I feel a sense of acceptance, love and confidence' (personal communication, May 1, 2020). Another student explained that art making was 'a chance to express yourself, your personality, and feelings by letting you go' (personal communication, May 2, 2020).

#### Constructive Criticism and Multi-Layered Feedback

A few students had difficulty sharing critical feedback because they had little previous experience with the arts and were unfamiliar with the language used in art critiques. Lim found out that students' social presence played a key role in their enrichment and growth through connection, communication and interaction (Thai et al. 2020). To promote social presence, Lim provided opportunities for course participants to engage in various types of class interactions and multi-layered communication strategies as Figure 8 illustrates. Beyond sharing and appreciating creative works, the students also engaged in group activities, such as small group works in synchronous class breakout rooms to conduct research, discuss the topics, as well as create and perform together with the other groups both synchronously and asynchronously. To cite an example, in the music-visual art-storytelling integrated lesson, students selected one environmental theme and expressed the scenes in a storyboard with the creation of Soundscape. These steps were conducted in synchronous breakout rooms. After that, the students expanded their learning and displaying space to an asynchronous virtual space by uploading the audio files and visual images to Canvas and YouTube and leaving feedback for each group's output.

The interactions and feedback were closely connected to assessments in the course. This course's assessment contained both formative and summative methods. The instructor's and peers' feedback were considered formative assessments intended to improve students' works, as shown in Figure 9. Lim provided students with feedback about their work through both synchronous meetings based on individual need, and regular synchronous meetings during office hours. Instructions for providing feedback about each project were given to students. Lim kept giving students continuous encouragement to share feedback and reminding them of critiquing etiquette throughout the semester. As a result, one student noted: 'We worked in

groups...working with a team to come up with ideas is a lot like what teaching will be like...we will need to know how to work with our colleagues to form new ideas and create new content' (personal communication, May 1, 2020). Also, after completing each project, including group works and the final project, the instructor provided summative assessments based on the rubric.

- \* Feedback on group activities
- \* Feedback and wrap-up comments
- \* Questions on the small group feedback

**Formative Assessment** 



- \* Group activities
- \* Group feedback assigned through Canvas Formative Assessment



# **Summative Assessment Formative Assessment**

- \* Synchronous one-on-one video conference meetings
- \* Phone call conversation
- \* Asynchronous communication via email
- \* Individual feedback



- edback \* Discussion board
  - \* Formal and informal chat Formative Assessment



- \* Canvas/Blackboard announcements
- \* Weekly notification emails
- \* Discussion board forums
- \* Synchronous office hours
- \* Video demonstrations PowerPoint lecture Formative Assessment

Figure 8: Types of Class Interactions and Multi-Layered Communication Strategies Used in These Courses. The instructor, Lim, has a relationship between a student, small groups and a whole class. A student shares feedback with a small group and a whole class. Graphic created by the authors.

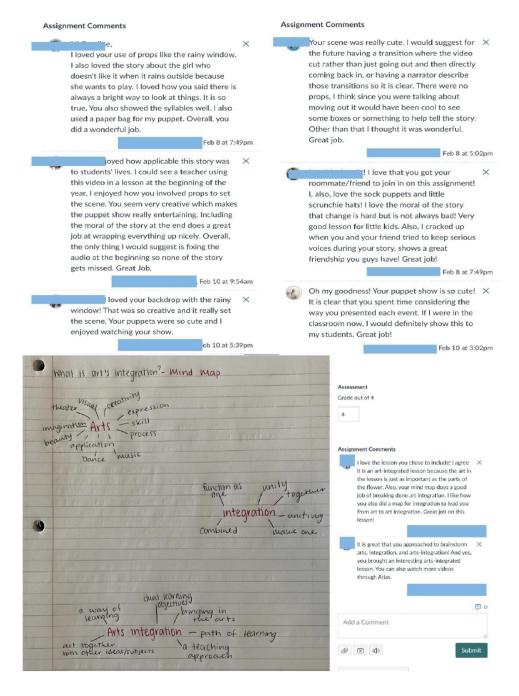


Figure 9: Examples of Students' and the Instructor Lim's Feedback. The students and the instructor shared their feedback through the asynchronous learning platform called 'Canvas.' The students were required to give feedback based on the guidelines, such as describing what worked well or areas that could be improved, along with detailed reasons.

## Absence of Division between the Real and the Virtual

As we theorise our understanding of practicing diverse realities, the students and the instructor spontaneously move around blurred areas of physical and virtual spaces. This course was rooted on Canvas. Even when using a face-to-face delivery format, Lim included asynchronous learning based on Canvas. When Lim adopted the Canvas platform, Lim set the objectives and learning outcomes of each art topic and designed the instructions and art activities based on backward design (Wiggins and McTighe 2006). Students examined readings, instructional videos and embedded videos online on Canvas before the synchronous class time through the flipped classroom approach in online education (Tucker 2012).

It was necessary for students to digitalise their artworks and submit evidence of their creative processes and the completed art pieces online. The submission of reflection papers and multi-layered feedback was also conducted online. Therefore, when Lim needed to change the course to a fully online format, a digital learning platform was already in place.

Although the digital technologies and online spaces were familiar to students, providing prompt feedback online while students were creating artwork was one of the challenges. Sometimes Lim had to give live demonstrations online to explain art principles and show students how they could improve their works. Classes were held on the synchronous meeting platform, Zoom, which enables participants to share their screens and files. Therefore, either Lim or one of the students could open a file contained an image of the student's artwork formatted in PowerPoint, Illustrator, Photoshop, Mac OS Preview or Microsoft Paint. Lim could then draw over the image to illustrate a concept.

Lim started using a Wacom Drawing Tablet (Figure 10) and Pen to draw digitally and improve preciseness when teaching online. Her students also received a short information session about the use of drawing tablets at the university's digital maker space.



Figure 10: Wacom Drawing Tablet and a Pen. These tools were utilised for synchronous drawing tutorials and feedback.

#### **Discussion and Conclusion**

In teaching art education courses online, we approach our lessons as a systematic structure (see Figure 11). Student, instructor, cultural environment, community, content and technology interact with one another in online classes. We, as instructors, utilise diverse technological applications to support students in connecting their learning to community, cultural environment, content and themselves. We value the learning community to strengthen students' learning online.

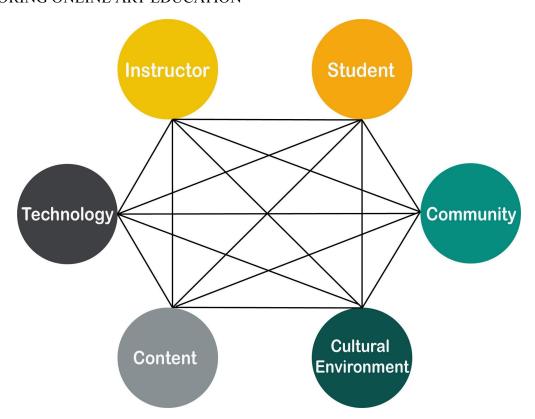


Figure 11: Online Art Education Course System. We found six elements in online art education courses that closely interacted and influenced our multi-layered feedback structure through this study. Graphic created by the authors.

Students can reflect on their identities and connect themselves to learning while creating art pieces in the virtual classroom. Art educators orchestrate interactions among participants that include sharing, interpreting and critiquing (Castro 2014). Furthermore, creative projects that invite students to examine their cultural environments enhance their self-awareness and self-reflection (Hubard 2020). Asynchronous activities in online courses can offer students the opportunity to refine their self-efficacy by giving them flexibility to choose their own learning pattern. Students can be simultaneously exposed to concepts like digital citizenship (Emejulu and McGregor 2019) through self-directed learning and participation in online discussions.

We recognised that building relationships is essential in e-learning. To promote and achieve successful learning outcomes, providing opportunities for multi-layered communication

strategies and various types of class interactions is critical. This result is in parallel with the findings of Filimowicz and Tzankova (2017), who examined the value of peer-to-peer, peer-to-mentors and instructor-to-student feedback in enhancing online visual art learning. In addition, group work and collaboration were encouraged in our courses (Dreamson 2017), so the students incorporated various types of communication to enable them to effectively work together. Establishing a close connection between the instructor and the students is also important for strengthening students' motivation. Students in one course even voluntarily created a group chat on an app to form a support group and to share information.

We also learned that students could move across the border between the physical and the virtual more freely and flexibly than instructors might imagine. Students may have a sense of place and socio-spatial context within a digital environment that also differs from that of their instructors. For example, one project for Kyungeun Lim's course included the process of writing a lesson plan, creating example artworks and digitising them, preparing teaching materials and recording their teaching demonstration. In teaching their lessons to virtual audiences, the students moved in and out spontaneously between the real and digital world (Ergler et al. 2016). Additionally, the students created teaching demonstration videos using different digital tools.

Influenced by the idea of Neurath, Chambers and Sandford (2019) suggsted educators teaching in the digital age are 'sailors who must rebuild their ship on the open sea' (926). In this paper, we examined how online learning environments can engage students with their studio art making as systems. Virtual art classes can encourage students to look into themselves and become more aware of themselves. Communicating and feeling connected to others are also critical for students in online settings. This study also found a blurred boundary between real and virtual learning environments. The participating students reported that online art courses were

unfamiliar and challenging to them when they were first thrown into distance education.

However, by continuously exploring digital technology and interacting with others online, they gradually became accustomed to virtual art courses. This process can be applied to teachers as well, so we encourage other art educators to embed fluidity and conceptual flexibility into their online teaching practices, to facilitate effective virtual art classrooms and supportive online learning communities.

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