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Online Teaching: Design and Health Insights for Future Pedagogies

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Learn X Design 2023

The DRS Education Special Interest Group unConference

Futures of Design Education

Online Teaching: Design and Health Insights for Future Pedagogies

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Abstract: Access, equity, and inclusion, along with new paradigms of student participation, have been important subjects in the field of digital education scholarship for more than 25 years. The 2019 pandemic accelerated the adoption of online delivery modes and transformed the learning and teaching frameworks in art and design higher education. While the sudden shift to online teaching posed challenges initially, reflections after the pandemic highlight that it also offered educators a chance to gain deeper insights into students' learning experiences, needs, and perspectives. This understanding can inform the development of online teaching in future design pedagogies. This paper presents insights from a panel discussion between design and health educators. The conversation focused on contexts, experiences, approaches, and technologies used for online teaching. The health educators had more than a decade of experience in online teaching, allowing them to develop and refine their online courses over an extended period of time. In contrast, the design educators had some experience in online teaching and the pandemic provided opportunities to increase it. These discussions highlighted the similarities and differences in online teaching practices between the two disciplines. Key insights emerged, emphasising the importance of a context-based approach, a student-centred perspective, effective pedagogical designs, and potential future directions for online teaching in the art and design disciplines.

Keywords: online teaching journey; future pedagogies; enhancing connection; design education; health education



Introduction: Why Do Design Educators Need to Converse with Health Educators?

The Digitally Engaged Learning Conference (DEL Conference, 2022) invited designers Gloria Gomez (GG) and Areli Avendaño Franco (AAF) to undertake a panel in which health and design educators came together to share our journeys in teaching online. Two key conference themes sparked us to host the panel:

- How is your field advancing access, equity, and inclusion within digital spaces?
- What do you think are the practices and processes for inclusive teaching and culturally responsive pedagogy that may forge new paradigms of participation and empowerment in learning?

The fast-paced adoption of "a radically digital architecture of online and hyflex spaces of learning" in "post-pandemic art and design education" as stated in the conference call (DEL Conference, 2022) prompted the exploration of opportunities to enhance the knowledge of design educators in online teaching via this panel project.

Beginning of the Conversation: How We Came Together

The panel aimed to facilitate a dialogue on diverse online teaching journeys and opportunities for future pedagogies in online teaching. Therefore, it seemed relevant to us (the design hosts) to bring our health education colleagues who have been teaching online for more than a decade (Daellenbach et al., 2022) into a conversation with our design education colleagues who quickly brought their teaching online during the pandemic. All participants were drawn from our work, research and professional networks: people we currently work or do research with or we went to design school with. The panel consisted of nine participants, including two co-hosts with design backgrounds, three design educators, and four health educators. The health educators came from ophthalmology and midwifery, while the art and design educators came from communication design, design and technology, industrial design, interaction design, online education, and set design. To protect their intellectual property, we have not used contributions to the panel from two panellists (ophthalmology and set design educators) who were unable to co-author due to other commitments, from attendees, or from the virtual conference organisers. Throughout the paper, co-author contributions are identified using first name and surname initials.



Figure 1. Our first conversation – Zoom meeting with co-hosts and panellists. Panellists not co-authoring this paper have been de-identified

Pre-Panel Conversation: Coming Together as A Panel

During the pre-panel Zoom meeting (Figure 1), the panellists shared their diverse experiences in online teaching, fostering connections and mutual learning. The health educators' extensive experience in blended delivery and collaborative development models served as a foundation for the insights and discussions (Daellenbach et al., 2022; Kensington et al., 2017). The design educators also had practical experience in developing flexible e-learning postgraduate programs. The design educators encountered both challenges and opportunities during the transition to online teaching. Then, the discussion moved to planning the content of the panel.

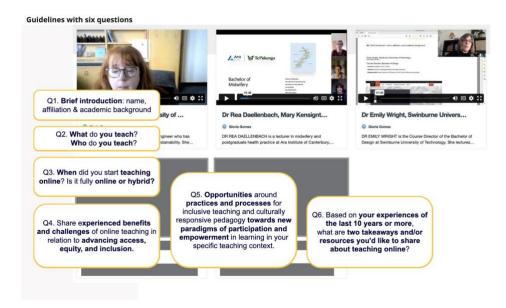


Figure 2. Video guideline with six questions and pre-recorded videos available in an online showcase for panel attendees – Videos of panellists not co-authoring the paper have been de-identified

Pre-recorded 3-5-minute Videos of Panellist

During our pre-panel conversation, we asked each panellist to create a pre-recorded video lasting 3-5 minutes (Figure 2). These videos offered a rich foundation for the panel discussion. This approach served two purposes: firstly, each video gave the panellists an opportunity to highlight the unique aspects of their online teaching practices and share key takeaways. Secondly, it accommodated the availability of panellists and participants across different time zones by allowing asynchronous access to the videos in a Vimeo channel.

The panel hosts created a guideline with six questions and specific keywords related to the conference themes. The panellists used them to inform the pre-recorded video presentations on their experiences. These keywords covered various topics, including teaching online for an extended period, transitioning to fully online instruction, blended and hyflex approaches, collaborative methods, practical activities, distance and inclusion, student-teacher partnerships, asynchronous discussions, and the benefits, challenges, and opportunities of teaching online.



Figure 3. The panel discussion at DEL Conference in 2022. Conference organisers and panellists not co-authoring the paper have been de-identified

The Panel Discussion Structure

Our live panel session took place during the DEL22 Conference and lasted for one hour. It was divided into three parts. The hosts kicked off the panel with **a brief introduction**, explaining the rationale behind selecting design and health disciplines as case studies for teaching online experiences spanning over a decade (5 minutes). **The live discussion between panellists** (Figure 3) was structured into two main areas: the context of their teaching and online journey

(approx. 20 minutes), and the learning architectures and digital infrastructure of their teaching (approx. 20 minutes). These topics were guided by the content of the pre-recorded videos created by the educators. Panellists and hosts' **takeaways** were conclusions of points being made during the discussion (approx. 5mins). The hosts thanked the organisers for this opportunity to contribute to DEL22 with this project.

Selected Conversation Insights

Hosts and panellists co-authoring this conversation paper, produced, curated and reflected upon conversation insights. These insights come from (Figure 4): 1) pre-recorded videos by the panellist who couldn't attend the live panel, 2) recordings of the pre-panel meeting, and 3) audio recordings of the actual/live panel. Early transcripts of these sources were generated using Otter.ai and manually refined by co-authors GG and AAF. Table 1 presents an overview of insights by topic and organised around the two chosen conference themes.

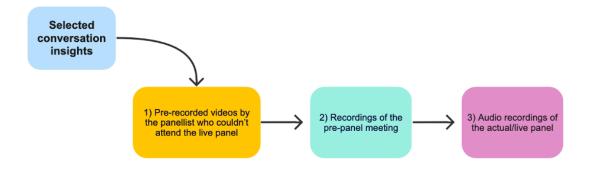


Figure 4. The three sets of data from which insights came from

Table 1 – Overview of insights

Chosen Conference Themes	Insights by topic
How your field is advancing access, equity, and inclusion within digital spaces?	 Context shapes online teaching programme development Relatable activities improve equity in educational outcomes and student participation Equitable and inclusive access: "A hard-balancing act" between internet infrastructure and university technology policies Challenges in doing practice-based components of teaching online Keep continuity and access students quickly during a disaster situation
What practices and processes for inclusive teaching and culturally responsive pedagogy are forging new paradigms of participation and empowerment in learning?	 Encourage student sharing or co-creating in asynchronous discussion technologies Teachers to nurture connection with students and reduce dropout rates Future learning from simulations and seamless technologies for connection and feedback

Insights on Access, Equity, and Inclusion in Online Teaching

The panellists shared approaches, practices, technologies, pedagogies that they use in the fields of design and health to advance accessibility, equity, and inclusion in online teaching. These insights were put together with the contributions from the four panellists Rea Daellenbach (RD), Lorna Davies (LD), Mary Kensington (MK) and Emily Wright (EW), and the video presentations of two panellists who couldn't be there, Lorna Davies (LD) and Sarah Wakes (SW).

Context Shapes Online Teaching Programme Development

During the panel, **health educators RD and MK** emphasised the importance of context in shaping the development of their midwifery teaching programs, discussing geographical factors, access barriers, and specific situations that prompted or accelerated the transition to online teaching. RD explained the massive change from face-to-face to online learning when this blended program began in 2009. This change was driven by issues relating to access and equity particularly for students living in rural areas of Aotearoa New Zealand, so they did not have to uproot their families/whanau by having to travel to urban centres to study. The advantages of blended programs to students' lifestyles and needs enabled women to study midwifery because we "f[ound] a way of enabling them to access the theory from where they live".

The proposition of a blended program (face-to-face and online components) responded to the vast **distances and accessibility challenges** of different areas in their region. The aim was to ensure equitable access for students from diverse geographical areas and within a bicultural and multicultural context. Health educator MK specifically described the geographical context (i.e., spread out regionally and rurally with huge mountains down the middle of the South Island of New Zealand) in which potential or current students reside in the communities they are part of. Figure 5 illustrates some insights from panellist around the distance and accessibility challenges they have encountered.



Figure 5. Selected insights from panellist around distance and accessibility challenges

During the development of the midwifery **blended programme**, it appears to become clear that inclusion of students living in rural areas, was also providing access for students from Māori (the indigenous people of Aotearoa New Zealand) backgrounds. **Health educators LD and MK** talked about ways of making the programme more accessible and inclusive to these communities. In the video presentation, LD explained how the Māori worldview framework is informing the healthcare system in Aotearoa New Zealand including education and discussed the need to adopt a more inclusive perspective which honours the perspective of Te Ao Māori (Maki explains in Daellenbach et al., 2022, pp. 344 -346). Figure 6 illustrates some insights around blended programmes for inclusion.

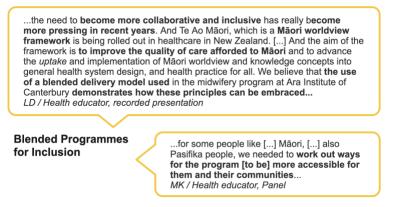


Figure 6. Selected insights from panellist around blended programmes for inclusion

Design educator SW has been teaching one course at a distance and fully online for a number of years now. In the video presentation, she talked about a summer school course on the sustainability of materials and explained that the majority of students are not in the same city that she lives in. They may have summer jobs, be living with their parents or on holiday, or got summer jobs. Their circumstances help her visualise who the course is for. Simple strategies can be used to create distance communities of students and teachers (Wakes & Dunn, 2023). A similarity could be drawn from the experiences of RD, MK and SW. **Lifestyles of students** choosing to study at a distance seem **to shape the design of online teaching** in these midwifery and sustainability courses, as illustrated in Figure 7. At the start of the pandemic, **design educators SW and EW** had to pivot online their face-to-face courses with little chance to take in consideration their students' circumstances.

... for my distance [students] on the [summer] school course, for example, the majority of the students are not in the same town city that I live in... [T]heir circumstance[s]... help me visualise who I'm designing... the course for... SW / Design educator, video presentation

Lifestyles and Circumstances of Students Shape the Design of Online Teaching ... Miro ... it's great for design and great for group work... It was understandable that it was very frustrating for some students... the Miro wouldn't load. Swinburne almost discouraged us from using other [external] tools. Because I think... of this issue of equity.

EW / Design educator, panel

...There we did a **mixture of some asynchronous and synchronous teaching**, and the **students**, particularly when they're isolated in their rooms **really enjoyed that face to face interaction**...

SW/Design educator, video presentation

Figure 7. Selected insights from panellist around how **lifestyles and circumstances of students shape the design of online teaching**

In her video presentation, **Design educator SW** explained that her hybrid approach to teaching Design for Technology had a mixture of some synchronous and asynchronous teaching. The students being isolated in their rooms really enjoyed that face-to-face interactions (in Zoom). While **design educator EW** shared during the panel how great it was that they could adapt and draw from materials that were already established for the Bachelor of Communication Design at Swinburne Online. At the time of the panel, all the units at Swinburne University were in process of being blended as part of a university wide decision.

Relatable Activities Improve Equity in Educational Outcomes and Student Participation

The health educators have implemented activities in which "[midwifery] students can relate and participate with each other" with the aim of "improving equity in [their] educational outcomes". These activities are part of "[their] blended mix" which include 1) small group tutorials led by a clinical lecturer locally (Kensington et al., 2017); 2) students work with and discuss online materials and add their own material (Daellenbach et al., 2022); 3) lecturing staff curate content every week; and 4) students do group assessment. They found that this kind of collaborative study works particularly well for the Pasifika students who feel less comfortable with individualistic learning.

Creating a 'Safe Space' for Student Participation

... [in] midwifery ... half their hours are practical hours. ... students needed to be able to debrief their practical experiences... [small face-to-face group tutorials] are run by a midwife, a midwifery lecturer [...] they're also teaching practical skills. [Students are] networking with the midwives in the local community,[...] [a] small group tutorial... provides a connection and support with each other... every week students meet for three or four hours with their lecturer MK / Health educator, panel

Figure 8. Insights from health educators around strategies to create a safe space through connection and mutual support

The midwifery colleagues also talked about **creating a safe space**, **so the students feel confident to contribute** in both online and face-to-face teaching environments. Safe space is a key characteristic of online teaching that is developed by understanding the specific context, including local needs and ways of learning. The midwifery educators, in their video presentation, discussed the creation of a safe space in their online teaching environment. This space encourages active participation, where students feel comfortable asking questions to lecturers and providing answers to their peers. They emphasised the importance of delivering the program in a way that considers the local needs and learning styles of individual students. A specific example is highlighted, where a midwifery lecturer/facilitator role was developed to address students' feelings of isolation and disconnection. Health educator MK explained (Figure 8) the motivation behind this role and the implementation of small group tutorials held weekly in the students' local community. These face-to-face sessions provided an opportunity for students to debrief their practical experiences and offer connection and support to one another.

Design educators SW and EW echoed this point that student engagement in online delivery depends upon the students feeling safe and supported in their learning environment. EW explains that for students to engage, they needed to feel comfortable in the online space and understandably, at first, this was not always the case. Some

students were reticent to turn on cameras and for some to even use voice audio. In this instance, text chat was an option for students. This was particularly important for offshore international students, who we had additional breakout sessions outside of the online class time to check in on their progress. These smaller groups could be more engaging depending on the social dynamics of the group. To facilitate this, we ran ice-breakers and other interactive activities for students to feel more comfortable in the online environment. On the same topic, SW provides insights on feeling safer in smaller group sizes. Having smaller group sizes was important as it allowed students to know who they were interacting with, contributing to their feeling of being safe. It was noticed that even the one or two in-person classes that had occurred before teaching went online helped with the subsequent online interactions as students felt they knew their fellow classmates better. Student-student support, as illustrated in the health context (Figure 8), was equally as important as staff-student support and it was essential that the more interactive elements of participation in online sessions was built up to over time so students were not left feeling overwhelmed or uncomfortable.

Equitable and Inclusive Access: "A Hard-Balancing Act" between Internet Infrastructure and University Technology Policies

The health educators (RD, LD, and MK) have prioritised the development of an asynchronous learning model to address challenges related to rural areas and internet access due to rural bandwidth (Figure 9). RD further explains the barriers faced in rural areas, such as limited internet reception and inconsistent internet connectivity due to weather conditions. These issues have made it difficult for midwifery students to attend weekly tutorials conducted on platforms like Zoom or Teams. As a result, providing theory content through an online platform that enables student to discuss content and share knowledge asynchronously (i.e., OB3) has been a more feasible option.

... [I]t was **driven** very much by **issues around access and equity**, especially enabling students... from rural areas, or from outside the main centres to be able to study Midwifery,... **without having to uproot.** [...] RD / Health panellist, pre-panel meeting

Development of an Asynchronous Learning Model due to Internet Access

... Yes, we're still **teaching some of our students offshore**. So even though we're back face to face, we're still [...] live streaming and recording the class. [...] there was **definitely technology**, **tech challenges there**. *EW / design educator*, *panel*

... because of not having [good] bandwidth, we couldn't, [...] give students in rural areas access to the theory through [video-conferencing] lectures, ... because they would have inconsistent internet and... weather dependent, [...] having...platforms... that are asynchronous... is probably the most reliable way that we've got there.

RD / Health educator, panel

...we have been delivering our units with Swinburne Online which is fully online delivery. [...] mainly using Canvas, ... we... worked with learning designers and all that content was sequenced and our lectures were turned into little five-minute video chunks... we had a really good foundation to get started with.

EW / Design educator, pre-panel meeting

[...] a lot of students, and this is maybe a particularly New Zealand thing, if they live rurally, [...] their internet access might not be very good. So, making sure you allow content to be downloaded [...] SW/Design educator, video presentation

Figure 9. Insights from panellists around their rationale to prioritise the **development of an asynchronous learning model**

The development of asynchronous learning activities is also prioritised in the distance paper on sustainability of materials, design educator SW ensures content is downloadable, reducing the reliance on heavy internet usage as in New Zealand internet access rurally is not very good. While the design educator EW shared an experience of integrating face-to-face and offshore students in the same class using a visual online collaborative technology (i.e., Miro). Ensuring equitable access for both groups of students through technology involves considering factors such as bandwidth requirements, finding solutions for students with challenging tech infrastructure, and navigating university administration policies related to technology selection (e.g., Canvas) for the sake of equity. EW elaborated on how this issue unfolded in her design strategy class when using Miro. EW observed that having a hybrid approach presents challenges (such as time-zone differences, firewalls, bandwidth) associated with technology set up.

Challenges in Doing Practice-based Components of Teaching Online

All panellists and one host (AAF) coordinate and/or teach in practiced-based programmes. The **design educators (AAF, SW and EW)** teach studio practice projects. The **health educators (RD, LD and MK)** run face-to-face activities (i.e., small regional tutorial groups and centrally located block courses). During the pandemic, health and design educators alike had to move all these practice-based components of the teaching online, whether they were using face-to-face or blended approaches to learning, and experienced great challenges. During the panel, **design educator EW** emphasised the importance of the creative process and hands-on engagement in the studio environment. She

discussed Miro, as a technology facilitating design critique discussions and peer-to-peer feedback because it seemed to replicate the collaborative nature of in-person interactions. She mentioned "running a study on the impact of Miro and feedback practices in the design classroom".

Keep Continuity and Access Students Quickly During a Disaster Situation

Over a period of ten years, two online teaching programs have been honing their skills in e-learning, allowing them to seamlessly transition from face-to-face to online teaching. The first programme is the bachelor of midwifery discussed throughout the paper. The second programme is a Bachelor of Communication Design (EW's institution) which was developed as part of a collaboration with a job search company. Having a well-established distance programme in both cases placed the design (EW) and health (RD, LD, MK) educators in fortunate positions, because they could draw on those experiences and were able to maintain continuity during disaster situations.

Maintaining Continuity During Disaster Situations [...] prior to that in 2011, [...] we had a huge earthquake... in Christchurch. And so, having gone blended in 2009, meant that [we were] one of the only programs at Ara Institute of Canterbury that was able to access our students really quickly after the earthquake, and was really operational quite quickly. MK / health educator, panel

During COVID, of course, we could adapt, we could draw upon those materials that were already established Swinburne Online, which was great. And now we're actually from a university wide level going blended. So, all of the units at Swinburne are now in the process of being blended...

EW / Design educator, panel

Figure 10. Insights from panellists around **the advantages of well-established online programmes in the event of disasters**

Their respective blended approaches enabled offshore (design) and rural (midwifery) students to enrol in a study programme online. It also enabled the midwifery team to access students quickly and efficiently after disaster situations such as the 2011 Christchurch earthquake or the 2019 pandemic.

Insights on New Paradigms of Participation and Empowerment in Online Teaching

All panellists were prompted to discuss the future of their programs in relation to the topics of a digitally focused architecture for online learning and hyflex learning. These insights show how they use and experiment with current and future technologies to support connection and relatedness in online teaching activities, both between academic staff and students and among students with diverse cultural backgrounds, even when they are geographically distant. These activities show how they are exploring new paradigms of participation and empowerment in learning, as educational technology platforms continue to evolve. As in the previous section, these insights were put together with the inputs from the panel participants (RD, LD, MK, EW) and the video presentations of the panellists who couldn't make it (LD and SW).

Encourage Student Sharing or Co-creating in Asynchronous Discussion Technologies

Four panellists shared their teaching experiences with **asynchronous discussion design** developed on their institutions' technology infrastructure for distance learning. They explained how they make these technologies work for addressing isolation, asynchronous engagements, and enhance interaction among the students.

Health educators RD and MK explained in detail the kinds of interactions they have promoted, "huge learning" through "[doing] group assessment". "Pasifika students appreciate that kind of collaborative learning". MK talked about their learning curve from working with static to more interactive platform that would allow the students to share, feel connected and work together with the "amazing kind of resources" that the lecturers in the programme were producing for them. MK explained that their system (i.e., OB3) enables lecturers to curate the content shared among students (Figure 11). They go in every week or every so often to review what topics and content the students are writing, analytical discussions they are having and add some more questions to prompt more thought and discussions. Asynchronous discussions among students changed the way the lecturing staff worked online. Towards the end of the session and in connection to the future, MK mentioned the need to find a solution to engage students

who do not actively contribute to asynchronous discussions, expressing the intention to conduct research to understand the reasons behind this.

... there were **so many more challenges**, even though we had that LMS organised and designed for online. [...] a lot of us took to Miro board **to try to recreate the pinup studio space**. [...] now there's been a real push [...] about **the inclusion in the accessibility and the equity...** EW / Design educator, pre-panel meeting

Student Sharing or Co-creating in Asynchronous Discussion Technologies

...in terms of that connectivity, [...] there's still some students that don't access... or don't actually write...in the asynchronous discussion, they're not contributing. [...] we need to do some research around [it] [...] there's lots of potential [...] going forward... MK / Health educator, panel

So that's been a **learning curve** along the way [...] amazing kind of online resources. [...] It **was really... flexible**, [...] a lot of midwifery students are mums with young children or primary school children. [...] they **felt kind of disconnected and isolated**. And for Māori and Pasifika students that was even more problematic. [...] we then shifted [...] into to using OceanBrowser, which was a much more interactive platform... *MK / Health educator, panel*.

Figure 11. Insights from panellists on **the role that asynchronous technologies can play in student sharing and co- creation**

Similar to the health educators, **design educator SW** explained in her video presentation that she makes opportunities for students to interact and meet in asynchronous discussions developed around content derived from videos and discussion boards in Blackboard. While **design educator EW** suggested researching the use of visual collaboration software for feedback and co-construction of work, going beyond simply mirroring studio practices. These advancements can benefit students who may not feel comfortable or competent in giving or receiving feedback in a face-to-face group setting.

Teachers to Nurture Connection and Relationship with Students to Reduce Dropout Rates

Health educator RD highlighted the importance of developing and maintaining strong connections and relationships with students. This approach has been implemented throughout the years, even when the midwifery program was conducted face-to-face. RD's perspective on the future of higher education is influenced by concerns about the impact of platformisation and artificial intelligence (Figure 12). She argued that fostering learning relationships among students and with educators has the potential to support high completion rates, ensuring more effective utilization of clinical placements and reducing the number of students who leave the program without a qualification and with a significant student loan burden.

Developing and Maintaining Strong Connections and Relationships

... [W]e do think that that relationship is a really important part of the learning that you can't just replace it, like one of the future scenarios for higher education that Siân Bayne talked about DEL 22 Keynote address ...we are concerned that that could happen [with Al]... RD / Health educator, panel

Figure 12. Insights from a health educator around the importance of strong connections and relationships with students

In the video presentation and in relation to culturally responsive pedagogies, **health educator LD** provided examples of the kinds of activities the students do and expands on the philosophical concept that binds all together Te Ao Māori (or Māori worldview) in their programme. She continued this thread with some specific examples and links these to the **importance of co-creation of knowledge within the Te Ao Māori framework**. An example illustrates how this framework informs the design of assessment in a theory-based course looking at the history of Midwifery in which students come together in small groups to co-create materials later shared to discuss with other students and lecturing staff in their platform of choice (Daellenbach et al., 2022).

Future Learning from Simulations and Seamless Technologies for Connection and Feedback

According to RD, MK, and EW, effective online teaching practices with technology in the future will require two key elements: connectedness and seamless integration. Health educator MK discussed the future of Midwifery at Ara Institute of Canterbury, specifically in relation to the use of virtual reality accessible through students' cell phones and laptops. She highlighted the practical applications and learning opportunities that virtual reality simulations offer, emphasising the development of a virtual reality birthing woman for their program (Daellenbach et al., 2022). MK sees significant potential for the future of Midwifery at her institution in this area together with research on understanding reasons for students not contributing to asynchronous discussions (see earlier section). Health educators RD and MK also emphasised the importance of enhancing connection through well-designed programs and technologies. Design educator EW highlighted the need for seamless integration between the learning management system (LMS), video conferencing, and other technologies. She also said that be interesting to see how hyflex and student choice will impact our learning experience in the future.

Takeaways

Emerging from the panel and video presentations, selected conversation insights have been shared in this paper. Table 1 overviews these insights, covering a wide range of topics regarding design and health educators' experiences of teaching online. They were categorised around two key conference themes focusing on access, equity, inclusion, student participation, context, and technologies of online teaching. For more than a decade, the health educators have made intentional choices of learning technologies guided by pedagogical principles, showcasing different approaches and combinations of engagement strategies. This panel project showed that the design educators have had opportunities to make intentional choices in the design of online teaching through a summer school course and contributing materials for an online design programme. The pandemic situation provided intense opportunities to think and act more systematically on the possibilities and future of online teaching in art and design education.

So, what are the design and health insights for future pedagogies in online teaching? We attempt to answer this question with four takeaways.

Takeaway 1: Know who you are designing for because context shapes teaching programmes. Educators really need to understand their students' context and background (e.g., rural, regional, offshore, indigenous), and from this understanding, design equitable and inclusive opportunities for sharing, co-creating, and connectedness in synchronous and asynchronous learning modes. Relatable activities improve equity in educational outcomes and student participation.

Takeaway 2: Educators need to have well-designed programmes and technologies to advance access, equity and inclusion in online teaching. These programmes should inform practices, pedagogies and technologies. Combinations of different ways for engagement were discussed in the panel and video presentations, with the common thread being the need to encourage student-student and teacher-student connection. Student-student relationships are transformed when chosen technology provides opportunity for group assessment, which is particularly appealing to students of indigenous background.

Takeaway 3: Understand possibilities and limitations of practice-based components of programmes going fully online. Finding ways to bring the benefits from the face-to-face classroom (e.g., workshops, studio) into the online teaching space is an important concern. Some technologies for online teaching offer opportunities to go beyond simply mirroring studio practices and make possible to develop feedback practices and co-construction of work among students.

Takeaway 4: The future pedagogies for online teaching involve experimentation with virtual reality (e.g., simulations) and seamless technologies for connection and feedback. Concerns on the instrumentalisation of education (e.g., the impact of platformisation and artificial intelligence) were shared in tandem with the need for seamless integration of preferred technologies with the LMS. Perhaps more research is needed on connectivity and student engagement in asynchronous modes of learning. Teachers nurturing and sustaining connection with students might reduce drop-out rates.

Discussion: A Few References to the Literature

We are now several years removed from the worst of the pandemic, so it is valid to ask, are these insights and takeaways still relevant? A few references to the literature might provide some initials answers, as an in-depth review is beyond the scope of a conversation paper.

Currently and in the near future, education is increasingly adopting hybrid and hyflex teaching models (Eyal & Gil, 2022; Lee, 2022), combining both in-person and online elements. These models utilise technologies that support synchronous and asynchronous delivery (Gomez et al., 2022; Gribble et al., 2022), providing learners with flexibility and choice in their learning approaches. The interdisciplinary perspective of hybrid learning incorporates pedagogy, technology, and space design, both physical and virtual (Eyal & Gil, 2022). Learners value the ability to balance their studies with increasing complex lives (Hillier et al., 2022) and may choose providers that offer such flexibility. The collection of insights chosen for inclusion in this conversation paper provide an overview of emerging and established hybrid and hyflex teaching practices in health and design education.

The conclusions of Fleischmann's (2020) pre-pandemic study include key points on implementing an effective online design course. Some of these co-relate with the insights of our design and health educators: opportunities to "exchange ideas with educators and peers", "collaborate online and directly which goes beyond the utilization of social media", and facilitate "a progress check on students' learning (projects)" (p. 52). Fleischmann's consultations with students on studio-based learning online show their preference for face-to-face and scepticism for design degrees delivered online. Our design educators' insights support the preference found in her study. This topic and others reflecting on teaching design online have also been reported by other art and design educators (see November 2022 Issue of Spark: UAL Creative Teaching and Learning Journal). Furthermore Lehtonen (2023) has reported research on what aspects of design education could be delivered in blended environments. One outcome yielded that blended learning seemed to have the potential to support pedagogical approaches that "emphazised students' agency over purely teacher-controlled learning environments" (p. 30). Finally, postgraduate research exploring opportunities and challenges of online distance education has started to emerge (Huard, 2022). These few references to design education literature show that the pandemic has provided opportunities to evaluate traditional preferences of design pedagogies and technologies preference from contextual, pedagogical and technological perspectives (see 2022 and 2023 issues of the Journals Design and Technology Education).

Online teaching programmes informed by an indigenous framework seem to relate to this statement that says "being culturally responsive is no longer a 'nice to have'... education must be responsive to our indigenous people. As the pandemic context has pushed learning into increasingly online spaces this is especially crucial..." (Brown et al., 2021, p. 38).

On the other hand, the comments on platformisation of education provide experiences that could help to reflect on an idea that online teaching should not align with the instrumentalisation of education (Bayne et al., 2020). Platformisation and instrumentalisation in one way or another are shaping and informing educators' roles and futures pedagogies of online teaching within the educational systems and society at large. Therefore, the panellists' insights on how they are juggling these realities with practices and pedagogies that bring students and teachers closer together through technology are motivating and hopeful.

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