REFLECTIVE ESSAY

On becoming Quitch-perts: The perspective of a peer leader during remote learning

*Abigail Wust, Faculty of Health, Arts and Design, Swinburne University of Technology, Victoria, Australia.

Taliah Swart, Faculty of Health, Arts and Design, Swinburne University of Technology, Victoria, Australia.

Grainne Oates, Swinburne Business School, Department of Accounting, Economics and Finance, Swinburne University of Technology, Victoria, Australia.

Nicolene Lottering, Faculty of Health Sciences and Medicine, Bond University, Queensland, Australia.

Contact: abigailwust@hotmail.com

If you search the term "Quitch," Google will recommend, "did you mean Quidditch?" The reference is seemingly appropriate to the game in the wizardry world, and in this paper we will reflect on the magical powers of the EdTech Quitch™ gamification app on student learning and creating a sense of community during the remote learning period of COVID-19. Judd and colleagues (2020) in their *Campus Morning Mail* article shared that "we have a responsibility to students to address their changing needs" and highlighted strategies of co-creation to transform the online student learning experience during COVID-19. The aforementioned authors challenged that if a central goal of higher education is to develop engaged, educated, and informed citizens, shouldn't we engage with students as such? As the old adage goes, "nothing about us, without us."

In the early years of our undergraduate degree in health science, many of our units featured a "sage-on-the-stage" style of education, consistent with the traditional role of a lecturer who didactically delivers content with little technological integration. Consequently, levels of engagement in and attendance at face-to-face sessions appeared to deteriorate over time, as our students' own preferred learning strategies were seemingly incompatible. As members of Generation Z (born between 1997 and 2012 [Statistica Research Department, 2012]) who thrive using multiple modalities for learning, we noticed that digital culture, which is intrinsic to our daily lives, was not being utilised to the extent it could be in higher education. The COVID-19 remote learning period in Melbourne further emphasized the need for student-centered digital learning as the transition from face-to-face teaching to remote learning introduced a new array of challenges. In this manuscript, we employ an autoethnographic

approach, which utilises self-reflection and personal experiences to critically analyse and understand the efficacy of a pedagogical partnership initiative in higher education to empower and engage undergraduate students during COVID-19 remote learning (Ellis et al., 2011).

As two undergraduate students, our reflective journey centres on a 12-week first-year anatomy unit in an undergraduate science degree, which inherently has an expectation that students memorize large amounts of new content and terminology (e.g., origins and insertions of muscles) for active recall of anatomical structures (e.g., bones, muscles, nerves). As students enrolled in the unit in 2019, the delivery approach by our educators was traditional and didactic in the sense that different learning styles were not always accommodated and diversity in digital learning platforms was not considered. We found ourselves overwhelmed, anxious, and struggling to find strategic approaches to our assessment and revision. As students directly impacted by COVID-19 in Semester 1, we are also uniquely equipped to identify the challenges associated with remote learning across the three units we concurrently studied. Such unprecedented issues included feelings of isolation and loneliness due to consecutive government-enforced lockdowns and curfews, a tendency to procrastinate due to lack of motivation, inefficient time management, a lack of access to appropriate learning spaces, and numerous accessibility issues with technology.

OUR JOURNEY THROUGH PEER LEADERSHIP

The notion of students and academic staff working collaboratively within higher education has gained traction in recent years, through pedagogical partnership models and inclusion in university strategic focus areas. Healey et al. (2014) and Matthews (2017) show that student-faculty partnerships allow for university teaching to be reimagined and informed through the student lens to influence learning environments. Cook-Sather et al. (2014) define a student-staff partnership as "a collaborative, reciprocal process through which all participants have the opportunity to contribute equally, although not necessarily in the same ways" (p. 37) and outline various methods to approach collaborative work with students and staff which includes co-creation of content. Similarly, Fletcher (2005) states that meaningful engagement from students happen when they are enabled to become active partners in education rather than passive recipients. Encouraging student involvement in teaching and content co-creation may also bridge the intergenerational gap that often exists in formal higher education settings, with Sanchez and Kaplan (2014) discussing the value of multigenerational teaching teams for developing more collaborative and inclusive learning spaces. Consistent with Dunne and Zandstra's (2011) model for students as change agents, the discipline lead for biomedical sciences in our program developed a Students-as-Partners (SaP) peer leadership program for anatomy, which focused on active learning through co-creation of revision content by third-year students for first-year students, to promote a collaborative learning community Throughout our degree in biomedical science, the benefits of a synchronous lecturer-student relationship were apparent, which is further supported by Australian researchers Hirst and Brown (2008), who highlight the positive impact and importance of collaborative learning in dialogic relational pedagogical approaches. A student-faculty partnership allowed for the student voice to be heard, which not only empowered us but forged inter-professional relationships with university and industry staff. The inclusion of the student perspective also transformed the unit so that it became more current, conformed with social constructivist theory, and helped academic staff manage their

multidimensional teaching workloads. At the inception of this program, all unit alumni were invited to attend a focus group to discuss and reflect upon the challenges associated with the unit during the university's COVID-19 transition period in Semester 1. Five candidates were selected for this project and met regularly prior to the delivery of the unit to critically discuss, reflect upon, and evaluate experiences. Following this, the peer leaders devised a strategy to co-create resources, content and pastoral care for first year-students during the remote learning period.

The vision of our partnership project was to sustain student engagement during online delivery and target spaced-and-paced learning patterns to improve long-term memory retention. To inform our digital strategy, pre-class surveys indicated that 83% of the first-year students were aged 24 years or under, 89% were multimodal and visual learners, and 93.5% indicated that gamification quizzes and challenges interested them. Armed with these insights, our peer leadership strategy focused on piloting the Quitch™ app for content co-creation to improve student performance and retention. As undergraduate students, we were introduced to Quitch™ in a prior semester, where the lecturer (the fourth author of this manuscript) utilised the app as both an individual self-assessment tool and a collaborative, in-class learning tool to create an interactive learning environment. Having experienced the beneficial effects of spaced repetition and active learning through the Quitch™ app ourselves, we were eager to assist in co-creation of content for future learners. This was performed by releasing weekly functional anatomy and clinical quizzes and peer-generated resources (including peer-created videos, colouring pages, and revision slides) to complement content, accompanied by push notifications to students' preferred devices, in an attempt to promote positive learning patterns. As Microsoft Teams was used as a discussion board, Quitch™ leaderboard announcements and weekly reminder posts were employed to encourage peer-to-peer discussion and pastoral care from senior students.

Ebbinghaus (1880) introduced the "forgetting curve," which centres around the relationship between time-since-learning and retention, a principle reviewed and supported by multiple authors (Murre & Dros, 2015; Pechenkina et al., 2017; Beatson et al., 2020). The correlation between spaced learning and knowledge retention has increasingly inspired the development of apps like Quitch™ that facilitate repetitive exposure to content (Pechenkina et al., 2017; Beatson et al., 2019). The benefits of Quitch™ over apps like Kahoot! or LMS-based quizzes lies in its personal learning capabilities, the fact that it is a mobile app with notification capacity, and that it enables high-quality visually aesthetic questions.

Through the Quitch™ Educator Portal (the backend for content development), our co-created questions and resources could be easily reviewed by academic staff for quality assurance before being published, ensuring content accuracy. Access to the Educator Portal also allowed us to track student engagement, assess participation and performance (accuracy), and share multimodal peer-created resources from modern media sites such as TikTok and YouTube. These resources accompanied the weekly content and assisted with student understanding of that content. These were often shared and discussed between the peer mentors, prior to release, to reflect on suitability. Student feedback was collected during live sessions and polls within MS Teams and actively implemented to adapt exam revision content, such as review materials and quizzes, to address student knowledge gaps. Unsolicited student feedback included, "I really like using Quitch as it has helped me retain content learned during

the week, and questions I get wrong make me realise what areas I need to work on," while positive interaction with students' senior peers is seen through the following student comments: "They're like mentors, it's good to have an older student offer practical advice about their own experiences" and "they have helped increase my motivation."

The leaderboard feature in the app also promoted positive and friendly competition between the first-year students, and the top three players were acknowledged on the unit discussion board and were sporadically awarded small prizes. Academically, students who opted to use the app received an average final grade 23% higher than those who did not download the app.

Figure 1. Graphical flowchart representation of the process through which content was delivered, including content creation and dissemination, sourcing of feedback from students and collaborative integration of feedback to facilitate improvements in the unit resource delivery and in the Quitch™ app.
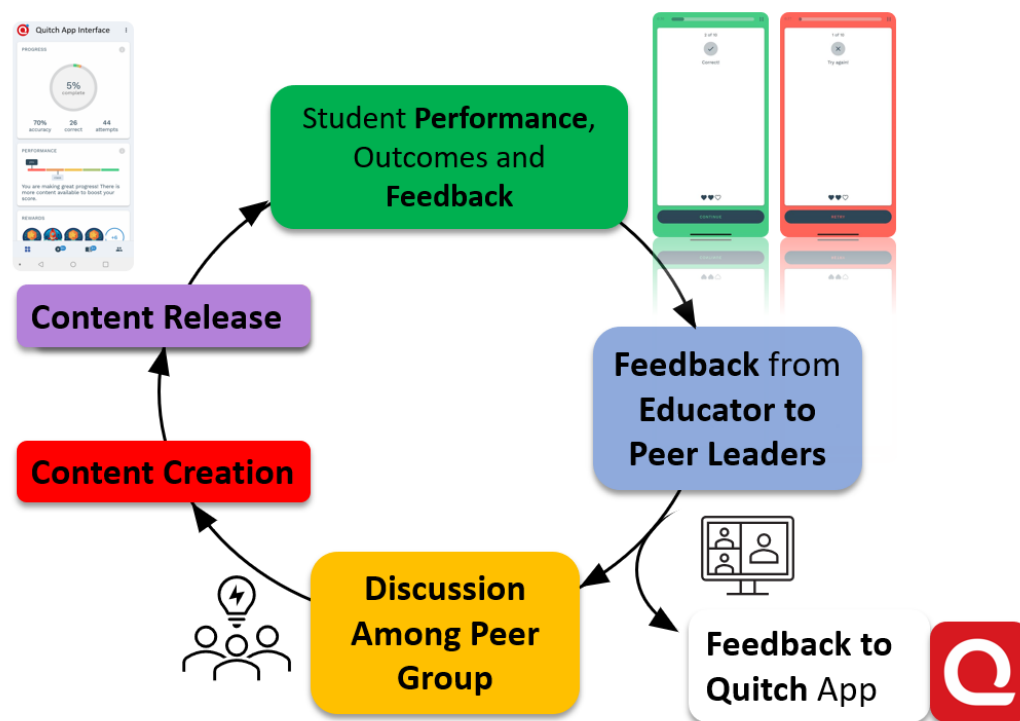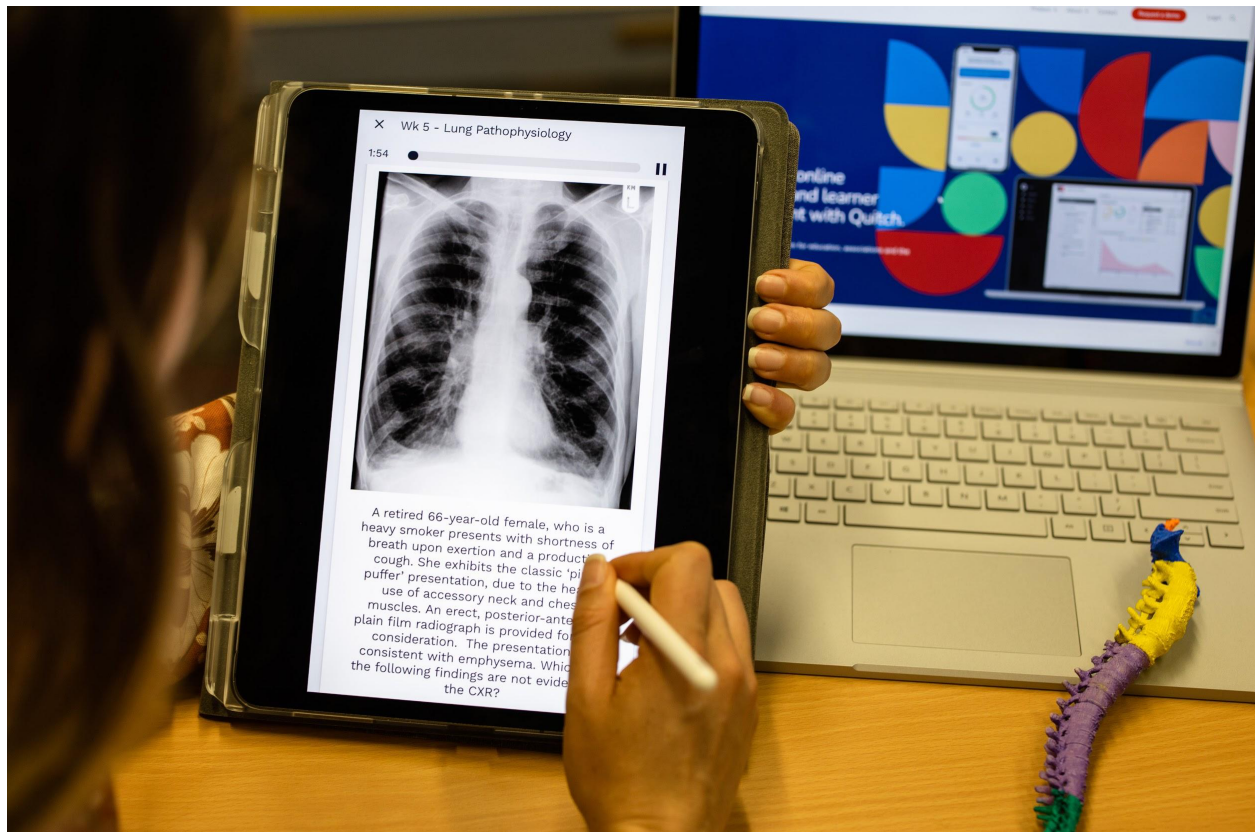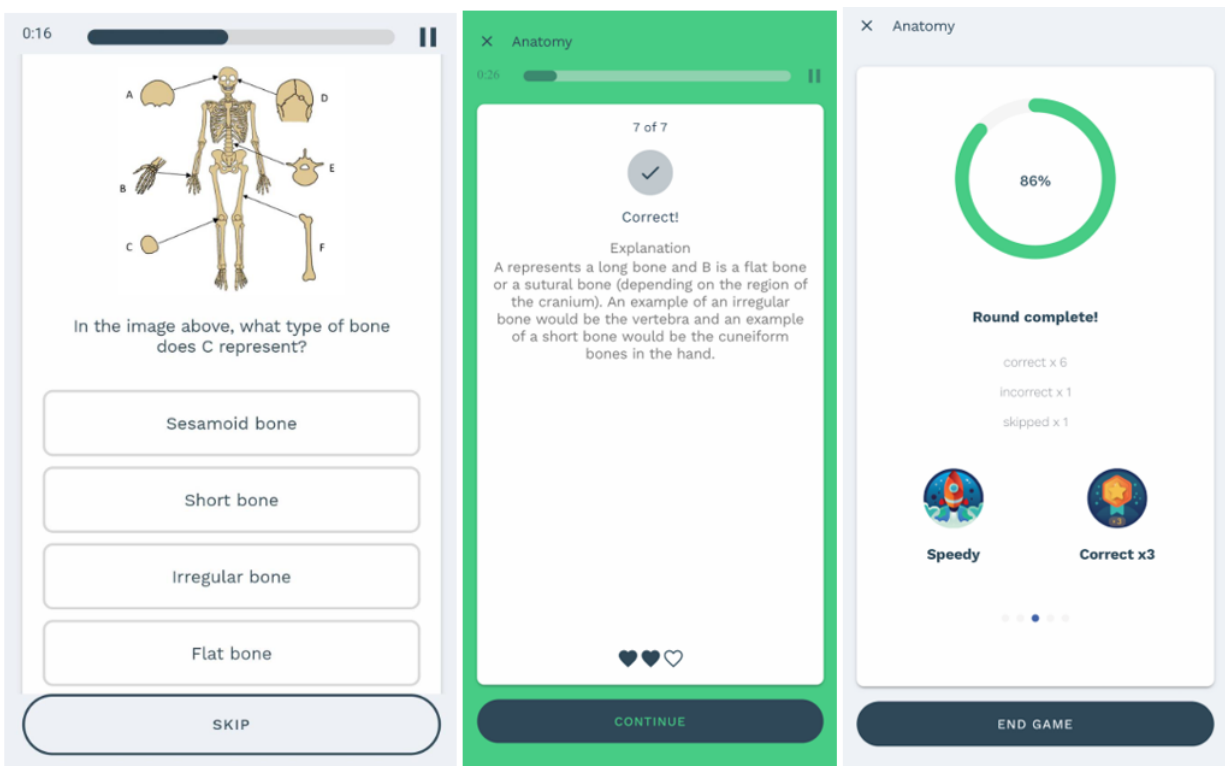
Figure 2. Student interface on the iPad for Quitch™ from an undergraduate anatomy unit

Figure 3. An example of the Quitch™ question-and-answer interface, including student analytics and badge acquisition after each quiz

SENSE OF COMMUNITY

Similar to the teamwork that is critical to the success of the Gryffindor Quidditch team, the social connection, collective goals, and friendships developed through the structured peer leadership program were particularly important to combat the loneliness and isolation experienced among many students during the Melbourne lockdown. Surrounded by like-minded, motivated, and inspiring peers, our weekly meetings and discussions allowed us to embrace the individual content, social media, and digital literacy expertise of each peer leader. A sense of community was developed both between us as third-year students, between peer leaders and first-year students, and also between peers and industry. Using in-class feedback mechanisms, one first-year student reported that "I feel as though my participation in class has increased during this time," and another saying that "the peer leaders are helpful in terms of resources they provide and the efforts they make to reach out to us." Further, it was seen that 79% of post-class survey respondents felt a strong sense of belonging in the unit and felt connected to their peers. Such feedback highlights the importance of qualities such as empathy and approachability in the role of a peer leader, and it helped us recognise the need first-year students had for additional pastoral support.

Professionally and excitingly, our involvement in this program led to casual employment opportunities to work with the Quitch™ development team directly in their co-creation project for Quitch™ marketplace. Prior to this opportunity, the Quitch™ team was heavily involved in providing technical support and requesting feedback throughout the semester. Their

involvement allowed us to experience educator training through the educator portal, and we were able to provide a student voice through focus groups created by Quitch™ regarding design solutions. Utilising our experience in using Quitch™, both as students and as co-creators of content, the Quitch™ team offered us opportunities to collaborate with them professionally through a focus group session and gainful employment as content creators for large, generic first-year undergraduate units. Through this, we gained valuable experience in content design and the establishment of industry connections and provided a student voice to inform future updates and improvements to the app.

In conclusion, this reflective essay provides a student-partnership exemplar at a time when coming together is more important than ever through the COVID-19 remote learning period. Using a human-centered approach, the peer leadership program in anatomy created an intentional experience that flourished in part because our convenor had the curiosity, willingness, and generosity of spirit to try something different. As senior students, we were provided with structured autonomy and agency to change the student learning environments in a turbulent time. Beyond the academic benefits to the students enrolled in the select unit, peer leadership programs like this enable us as students to feel a sense of ownership and improve our skills in communication and content creation while fostering a sense of community to help us feel connected and sustain lifelong friendships. During this time, we have learned that meaningful connections can be achieved in a virtual world and that new gamified technologies such as Quitch™ introduce an exciting and effective means for positive learning behaviours and accordingly for improving academic performance. Meeting students where they live in a digital world and targeting intergenerational differences in learning and teaching is a crucial consideration for tertiary educators to be able to reinvent their approaches to support student learning outcomes and graduate attributes in a modern world.

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NOTE ON CONTRIBUTOR/S

Abigail Wust *is an undergraduate student at Swinburne University of Technology, majoring in Biomedical and Clinical Technologies.*

Taliah Swart *is a Master of Health Science by Research student at Bond University in the Faculty of Health Sciences and Medicine.*

Grainne Oates *is the Founder and CEO of the Quitch Gamification App, and an Associate Professor in Business at Swinburne University of Technology. Dr. Oates was responsible for*

providing casual professional development opportunities for the student authors in the Quitch Marketplace, following their success with this project.

Nicolene Lottering *is an award-winning Assistant Professor in Anatomy in the Bond University Medical Program, with an interest in technology-enhanced learning and the creator of the students-as-partners program featured in this manuscript.*

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