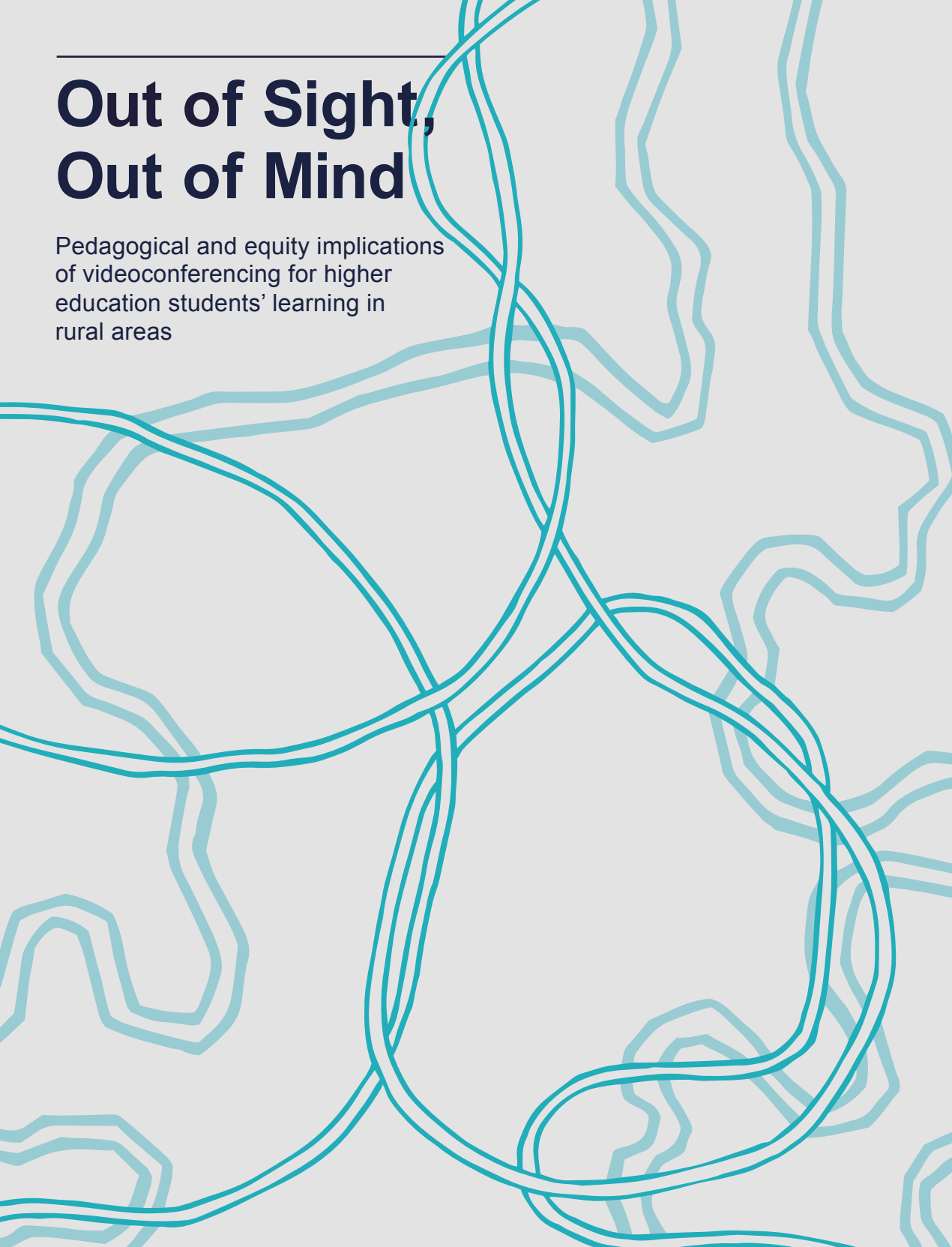# Out of Sight, Out of Mind

Pedagogical and equity implications of videoconferencing for higher education students' learning in rural areas

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Author Biography

Anne Croker is a Research Fellow at the University of Newcastle Department of Rural Health in Tamworth. In 2011 she completed a PhD exploring collaboration in healthcare teams. From her long-term interest in patient-centred collaborative health care, her location in a rural area and experience with qualitative research methods she is well positioned to embrace the complexity of interprofessional education and learning. Anne is also interested in issues related to equity, particularly in rural education and rural healthcare practice.

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Background
and overview

Our research explores *videoconferencing for higher education students' learning in rural areas.* Having students in rural areas participate in learning opportunities through videoconferencing is an important aspect of widening participation in higher education. Our social justice intention for this research resonates with the recent words of the Regional Education Expert Advisory Group in their *National Regional, Rural and Remote Tertiary Education Strategy: Final Report* (2020) for the Australian Government:

"We firmly believe that all Australians deserve fair and equal access to high quality tertiary education, regardless of location or personal circumstances."

Accompanying our social justice intention was our pedagogical interest in videoconferencing. This interest stems from our stance that it is insufficient to focus on just *accessing* higher education. We also need to consider what happens beyond entry or admission to higher education, including how curriculum, assessment, and academic literacy are accessed. In our research we sought to understand more about the pedagogical and equity implications of videoconferencing for higher education students' learning in rural areas. We focused on health professional students living and learning in the University of Newcastle Department of Rural Health in Tamworth (UONDRH), NSW, Australia. We used collaborative dialogical inquiry to ensure that we 'researched with' educators, rather than on them. Data for analysis was constructed from focus groups with the project's 15 co-researchers (health profession educators), as well as other educators in rural and metropolitan areas, and students living and learning in our local site. Through our research we developed the *model of "joining via technology from…"* to inform future practice and to guide ongoing discussions.

We note upfront that our research was undertaken prior to the COVID-19 pandemic. Acknowledging this timeframe is important. COVID-19-related requirements for physical distancing instigated rapid widespread use of videoconferencing across the higher education system. This widespread use created rural–metropolitan 'level playing-fields' for those organising and supporting learning. However, this new-found equality will be difficult to maintain as metropolitan contexts return to 'face-to-face' learning as COVID19 restrictions ease. Thus, findings from this research are important during these unprecedented times where learning and teaching may shift from physical co-location to online interactions and then back again.

The grant we received from the Excellence in Teaching for Equity in Higher Education (ETEHE) program, through the Centre of Excellence for Equity in Higher Education (CEEHE) provided both funding and guidance. The funding enabled us to stop, reflect and grapple with issues; issues that we would not normally have time or space to think deeply about, beyond them being a shared niggle of concern or insight to follow up 'if and when we have time'. CEEHE's multidimensional social justice framework and commitment to research-informed equity practice helped us grapple with complex concepts of *difference, inclusion, misrecognition, misrepresentation* and *praxis*. Importantly as health professional educators we acknowledged that while social justice theories were relevant to our practice, they were not necessarily at the immediate forefront of our professional socialisation. Thus, we valued the expertise and experience of our equity practitioner colleagues as we navigated complex social justice theories. The conceptualisations of the key terms we present in Text Box 1 were developed with the guidance of these colleagues and informed our social justice intentions. Importantly, the more we used and grappled with them, and their underlying theories, the more we understood their complexity and scope for richer engagement. Our understanding of the social justice framework has grown through the project and this is accompanied by our realisation of the huge scope to develop it further.

Text Box 1: Conceptualisations of key terms

Difference enables attention to the ways our identities are formed through our relation to others. Identities are formed in relation to difference and inequalities are produced through the differences that come to matter, including different relationships to place that are given meaning through the discourse of policy and practice (rural/metropolitan).

Inclusion is a form of symbolic violence when it requires those seen as different (often constructed as 'equity students' for example) to conform to the institutionalised values and practices that are entrenched in histories of exclusion, marginalisation and oppression. However, inclusion becomes possible when grounded in and guided by explicit social justice principles.

Maldistribution is a form of economic, material and/or financial injustice. An example includes lack of access to the technological resources and equipment required to fully participate in online education. It is also the maldistribution of health professionals in rural areas.

Misrecognition is a form of cultural injustice in which some identities, practices, dispositions and knowledges are denied value at the social and/or institutional level. This injustice is often made invisible through deficit discourse which distorts the experience of or perception of misrecognition as a problem of individual lack.

Misrepresentation is a form of political injustice in which particular communities, groups or individuals are excluded from participating in decision-making, influence or representation of their experiences and identities.

Praxis* is a critical concept that emphasises the dialectic relationship between action and reflection. It is drawn on to illuminate the important interrelationship of equity theory and equity practice for creating transformational change in higher education.

Based on: Burke, P. J. (2012). *The Right to Higher Education: Beyond widening participation*. London: Routledge.

* In relation to understandings of *praxis*, we would like to add to the complexity of our grappling by noting that as health professionals we can use the term differently in a clinical context; for example occupational therapists can use the term in relation to "poor skilled motor gestures that are not underpinned by general motor deficits" (Crucitti et al., 2020, p. 3253). We provide this example to highlight the importance of being attuned to the potential for linguistic confusion when working across disciplines and different contexts, of being explicit with meanings of key terms and of being open to new ways of looking at familiar concepts.

In this report we describe and explain the research we undertook through this grant. In the introduction section, we introduce our conceptualisations of *videoconferencing* and *rural* where we intentionally embrace the complexity of these concepts. We then introduce the topic of the research, *videoconferencing for higher education students' in rural locations,* and explain our stance for critical awareness. Our theoretical underpinnings, articulated in the next section, set the scene for our grappling. These theoretical underpinnings relate to our *social justice framework for widening participation*, *videoconferencing as a socio-material practice* and rural as a *socially-constructed concept*. The method section details who we are as a research group, our context, our research approach, as well as how we collected and analysed our data. In our findings section we introduce and describe our *model conceptualising "joining-via-technology from…",* illustrating it using participant quotes. The final sections of the report explore implications for critical awareness of the model and the *tensions* it articulates, recommendations arising from the project and final reflections for our ongoing considerations.

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Introduction

Introducing our conceptualisations of 'videoconferencing' and 'rural'

In our research we viewed *videoconferencing* as a means of providing a synchronous form of electronic communication to enable real time discussion with "interactive and synchronous voice, video and data transfer conducted between two or more points via communication lines" (Gough, as cited by Karal, 2011, p. 276). We understand that the term videoconferencing encompasses a range of different and dynamic platforms (including Zoom, Skype, Teams, Cisco and WhatsApp). Being supported and preferenced differently across organisations and between individuals, these platforms can change rapidly over time. Thus, videoconferencing is a multifaceted concept involving both *technology* and *people* that can be viewed as socio-material practice. Educational strategies that rely on videoconferencing technology tend to assume an equity of access, something that is not always 'a given' in rural areas. Further, pedagogical approaches do not necessarily focus on meaningful engagement with people from rural areas through videoconferencing.

Rural is not necessarily as easy to conceptualise meaningfully and inclusively, as the concept of rural can reflect experiences, identities and external classifications. For example, our research team lives in or around Tamworth, an inland city three and half hours' drive from Newcastle. We experience our people, horizons, weather, streets and shops on a daily basis. This is our home and our community. We work at UONDHR with plenty of available parking, healthcare students living on site, an easy walk to the hospital and kangaroos outside our windows on a regular basis. Some of us grew up in a time before we were given our 'rural' label; we might have said that we were from the country or the bush, or that we were 'townies' or lived 'out of town' on 'on a property'. Some of us still use these terms, while others of us have incorporated the term 'rural' easily into our everyday language. As a regional city, Tamworth has an external classification as a Modified Monash 3, meaning that we are "categorised ASGS-RA 2 and ASGS-RA 3 that are not in MM 2 and are in, or within 15km road distance, of a town with a population between 15,000 and 50,000" (Australian Government Department of Health, 2020). These varied conceptualisations raise questions, including:

- what does *rural* mean to us?
- is this different to what it means to others?
- what *rural* conceptualisation aligns most closely with us and our experiences?
- why is this?
- how can we be more than our postcodes?
- why might this matter?

These questions underpin the social justice intention of this research and enabled us to orient ourselves to be attuned to implications of varied conceptualisations of rural in relation to the social justice notions of *difference, inclusion, maldistribution, misrepresentation* and *misrecognition*.

Importantly there are no easy answers to the above questions related to rural conceptualisations. Thus, we sat with this complexity and uncertainty throughout the research, rather than trying to neatly pigeon-hole ourselves. Importantly we are still sitting there. Recognising this complexity and uncertainty at the beginning of our project enabled us to bring into the open that which we take for granted, while embracing the importance of being open to new ways of seeing and conceptualising things. Recognising that we needed to continue to sit with this complexity and uncertainty was important to ensure that we did not falsely simplify and 'tidy up' complex issues and recommend 'simple fixes'. It is in this space that we to continue to develop richer understandings of the social justice notions that continue to underpin our ongoing practice and reflections.

Introducing videoconferencing for higher education students in rural locations

For students and educators in a rural location, videoconferencing is integral to education; both in the educational sessions and the behind-the-scenes provision of managerial, information technology and administrative support. Videoconferencing might be instigated and managed by staff in metropolitan or rural areas, and involves different ways of participating in the session (in relation to how they are involved) and appearing on others' screens (in relation to what others can see of them). Participating in the session can involve being 'one of many', 'one of a few' or even the 'only one' participating from afar. In rural areas, students and educators (and those in other roles) may videoconference into metropolitan locations or participate in videoconferencing across other rural locations. Participating can also involve different forms of interactions through cameras, microphones and keyboards (the availability, access to and quality of which may vary across locations). Further there may be different degrees of synchronous exchange from continuous to intermittent to minimal. For example, participants can have continuous intermittent exchange when they are actively involved in discussions with camera and microphone turned on throughout the session, intermittent synchronous exchange by using the on and off functions on the camera and microphone, or minimal exchange with video turned off and microphone muted. Thus, they can be active, intermittent or passive participants.

In relation to appearing on others' screens, participants may have some control over their backgrounds (depending on their equipment) or whether or not they have their cameras on. However, they may have less control over how their images are projected onto others' screens. For example, they may be subsumed into the background of a large room with minimal control of the camera angle; they could inadvertently dominate the room through a close up projected onto a large lecture theatre screen; or they could be one of many in an open-ended tiled-mosaic format, where not all participants are necessarily visible on the same screen. Lack of control over how they are projected onto others' screens risks lack of control over how they and their locations are represented. These varied ways of participating and appearing on others' screens add to the complexity of videoconferencing in higher education.

Further contributing to the complexity of videoconferencing are the challenges inherent in actually getting to **be** that 'face on the screen', whether it is as an active, intermittent or passive participant. These challenges contributed to the momentum for the research and were reinforced as we wrote the grant that funded this research (see Text Box 2). Without embracing and critically exploring these challenges, students and educators in rural areas can be rendered visible, hyper-visible or remain "out of sight and out of mind".

Text Box 2 Examples of everyday situations with videoconferencing reported to Anne Croker during the process of the grant application for this research.

Dashing for IT [information technology] assistance!

Back when I was writing the grant application for this research, a usually calm educator rushed past dashing between tutorial room and IT support desk and muttered in exasperation to me and my nearby colleague: "I am doing another [mild expletive] videoconference tutorial." After the whirlwind passed my colleague commented to me: "Interesting that it [videoconferencing] takes [educator's name] so out of character and disturbingly we just accept this as reality. We can have a disempowering relationship with technology."

Beginning with an apology…

As I returned to writing the grant application my colleague continued his reflections: "Isn't it always the way that when you eventually have connection, you begin the videoconference by saying 'Sorry about that mix-up and delay. IT can be a bit out of our control. Can I apologise in advance for any further IT issues'. It sets the platform for negative interactions with technology and reinforces the divide between rural and metro. Who has responsibility for presence and for parity of participation?"

Battling to continue and needing to accept second best?

As I was putting the finishing touches to the grant an educator laughingly told me at the end of un-related discussion: "I wish you could have seen me the other day, I tried so many videoconferencing formats, none of them worked. Rather than cancelling we continued by phone. It was so difficult not being able to see the students' reactions."

Introducing our stance for critical awareness

This research was based on our recognition of the complexity of technologies and pedagogies shaping our use of videoconferencing and our aspiration for students in rural areas to participate meaningfully in higher education. We were keen to bring a critical awareness to our research through a social justice framework where hegemonic pedagogies are viewed as working to "silence and make difference and inequality invisible, ironically often through references to social inclusion, widening participation and diversity" (Burke, Crozier & Misiaszek, 2017, p. 131). Critical awareness of pedagogical implications is important if videoconferencing is to reach its inherent potential for enabling participation. We embraced the intertwined nature of people and technology by viewing "human-technology relations as co-constitutive – the things of our world constitute us as much as we constitute them" (Adams & Thompson, 2011, p. 738). From our perspective, addressing equity implications with critical awareness is important for ensuring that people in rural areas are visible and valued when videoconferencing. Integral to the focus on students living and learning in a rural area is recognising that 'rural' is a socially constructed concept rather than a single entity captured by a single definition.

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Theoretical underpinnings
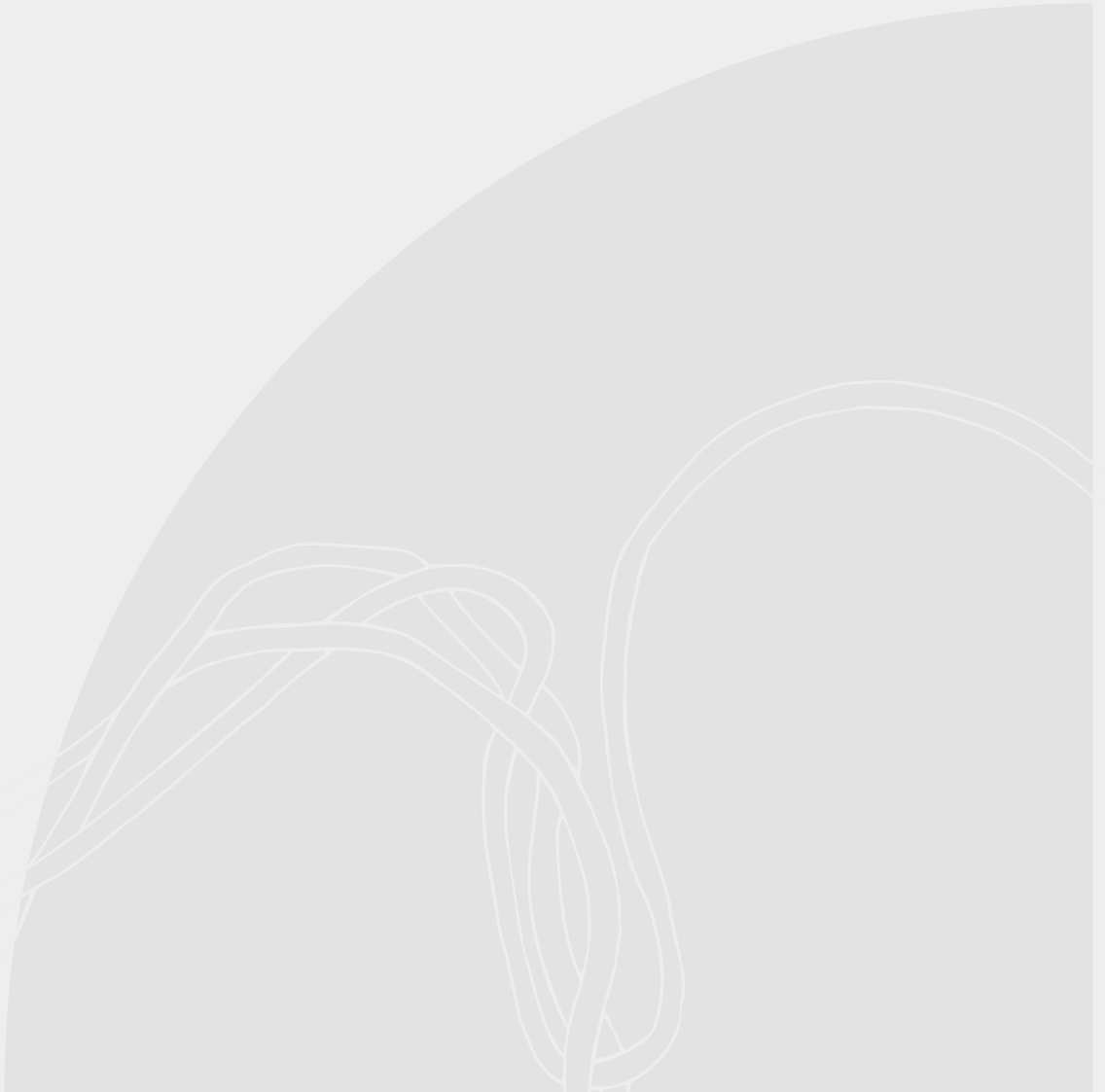
Social justice framework for widening participation

The social justice framework underpinning our critical awareness of widening participation was based on the work of Burke, Crozier & Misiaszek (2017). In particular, we drew on the notions of *difference, inclusion, misrecognition* and *misrepresentation* (as shown in Text Box 1). Thus, we were aware that the discourse of *inclusion* coerces those seen as 'excluded' to conform to the conventions and values of hegemonic frameworks and identities as they often inadvertently "participate in a process of 'transformation' into normalised personhoods" (p. 30). We recognised that there are "subtle ways that different students and teachers are unequally positioned, constructed and mobilised across higher educational spaces" (Burke et al., 2017, p. 29). We engaged with the notions of *recognition*, as having to do with "'patterns' of cultural value" relating to "respect, esteem, prestige" and the way society values different traits and different activities (p. 121). In relation to *misrepresentation* we heeded the claims by Burke et al. (2017) that "in order to have parity of participation, the person must be recognised and have access to representation as a fully valued member of the community" (p. 31), noting access that may be beyond their control through external pressure to conform to hegemonic structures and conceptualisations.

We began the research from the stance that as educators we need critical awareness of both *videoconferencing* and *rural*: in particular in relation to (i) *videoconferencing* where there is a tendency for videoconferencing to dominate the learning or communication experience (requiring critical awareness of pedagogical approaches), and (ii) *rural* as a socially-constructed concept, where there is a tendency for reductionist representation and deficit discourse (requiring critical awareness of conceptualisations and language related to rural). We contend that through ongoing critical awareness videoconferencing can become less of an isolating or interrupting experience and more of a deliberate pedagogical approach; and, further, that the rural reductionist representation and deficit discourse can be knowingly transcended through deliberate choice of conceptualisations and language. In seeking ongoing critical awareness of pedagogical implications of *videoconferencing* and equity implications of *rural,* we aimed to avoid the reproduction of exclusions and inequalities at cultural, symbolic and structural levels (informed by Burke, Crozier & Misiaszek, 2017). Thus, we strive for students living and learning in rural areas to be **more than** 'out of sight, out of mind' and for videoconferencing to *not* inadvertently *reinforce* the problem that the solution is addressing, that is that rural areas are all about the deficit, such as disadvantage, challenge and difference.

Videoconferencing as a complex socio-material practice

The complexity inherent in 'videoconferencing' is evident in Correia et al.'s (2020) research exploring four widely-used videoconferencing systems: Zoom, Skype, Teams and WhatsApp. They identified a variety of learning-related features that varied across different systems, including audio (mute), video (turn off camera), recording and playback, screen sharing, application sharing, file transfer, chat, annotation tools, breakout rooms, polling, virtual hand-raising, instant reactions and captions that combine to support concrete experiences, reflective observations, abstract conceptualisations and active experimentations. Underpinning their recommendation that "the design and optimization of web-based videoconferencing systems should advance toward a more human centered approach" (p. 17) is their extensive list of usability criteria: privacy and security, flexibility and controllability, simplicity, readability, self-descriptiveness, user guidance, consistency, familiarity, minimal action, navigability and customer service support. Al-Samarraie (2019) similarly identified a variety of videoconferencing systems, articulating learning opportunities and challenges, and highlighting that "more efforts are needed to determine the key antecedents for creating a comprehensive experience in videoconferencing environments" (p. 134). With this complex array of technology systems and features, it is unlikely to find a 'one-size-fits-all' approach to its use.

Videoconferencing is being increasingly used when educators and students are geographically separated without the option of face-to-face interactions and where they require synchronous communication (Al-Samarraie, 2019). The reasons for students' and educators' geographical separations are varied and evolving. Beyond our situation in the UONDRH and the current need imposed unexpectedly by COVID-19, is the increasing focus on work integrated learning and interest in expanding university boundaries beyond metropolitan campuses. Work integrated learning (also referred to as WIL) is a key focus of universities. At the University of Newcastle it is promoted as a "meaningful, hands on workplace experience to enrich the theoretical learning […] and to enhance the employability of […] graduates" (University of Newcastle, 2021). Quality WIL requires "engagement, connection and responsiveness to the dynamic expectations of diverse stakeholders (industry, community, government, higher education sector, professional bodies, students)" (Australian Collaborative Education Network, 2020). For some students, work integrated learning can involve connecting back to the main campus for 'real-time' educational sessions via videoconferencing. For many healthcare students work integrated learning involves choosing to undertake clinical or community placements in a variety of locations, including rural areas. Thus, videoconferencing can be required for communication between geographically distributed people involved

in developing, supporting and participating in work integrated learning. In relation to expanding university boundaries beyond metropolitan campuses, the recent *National Regional, Rural and Remote Tertiary Education Strategy: Final Report* (Regional Education Expert Advisory Group, 2019, p. 4) articulates "a vision of a tertiary education system which supports equal opportunity and access for individuals from RRR [regional, rural and remote] areas" and aspires for "equal opportunity for every individual from RRR areas to access tertiary education regardless of personal circumstances and location" (p. 8). The report highlights importance of "infrastructure such as study spaces, video conferencing, computing facilities and internet access, as well as academic and some pastoral support for higher education students studying in RRR Australia via distance education" (p. 98). Videoconferencing is, therefore, integral to a range of educational strategies and intentions.

On one level, videoconferencing can be viewed as a "network of buttons, screens, microphones, cameras, and speakers" (MacLeod, 2019, p. 412) that provides a synchronous form of electronic communication to enable real-time discussion with "interactive and synchronous voice, video and data transfer conducted between two or more points via communication lines" (Gough, as cited by Karal, 2011, p. 276) However, on a more conceptual level it can be seen as a socio-material practice where

social and material aspects are as important as each other and are inseparable in everyday practices where "boundaries between human and nonhuman are negotiated and renegotiated moment to moment" (MacLeod, 2019, p. 413).

Based on videoconferencing being a socio-material practice, MacLeod and colleagues (2019, p. 412) challenge the assumption that "videoconferencing merely extends the bricks and mortar classroom". Rather, videoconferencing adds a new layer of complexity to education and can lead to intended and unintended consequences. We propose that Brown's (2009) caution from over a decade ago is still relevant today: "lack of critical scrutiny [of digital technology] can lead us to accept some questionable assumptions about what digital technologies do and can do in relation to education and society" (p. 1159). Importantly this scrutiny is well timed to accompany the current rapid increase use of videoconferencing that is undertaken reactively to the COVID-19 pandemic.

Being critically aware of videoconferencing as 'socio-material' practice provided scope to recognise "human-technology relations as co-constitutive – the things of our world constitute us as much as we constitute them" (Adams & Thompson, 2011, p. 738). We began our critical awareness of videoconferencing as socio-material practice from the stance that while videoconferencing can shape our perspectives and actions, we can also shape it to ensure

that it is a subservient tool for our learning and communicating, rather than us being subservient to it.

In exploring our experiences and perceptions we were inspired by Gergen's call "to challenge the guiding assumptions of the culture, to raise fundamental questions regarding contemporary social life, to foster reconsideration of that which is 'taken for granted' and thereby furnish new alternatives for social actions" (1978, p. 1346). We were conscious of:

- "attending or 'listening' to the invitational appeal of things [to give] aperture to the unique 'ongoing horizon of meaning and action'" (Introna, cited by Adams & Thompson, 2011, p. 740)
- asking "not only what a given technology enhances but also what it simultaneously reduces or diminishes" (p. 742)
- identifying "tensions in the way human and non-human entities become intertwined" (p. 745).

The framework we brought to exploring the experiences of videoconference participants was informed by van Manen's (2014) life world existentials, these being "universal themes of life" (p. 302), as follows:

- relationality, as the relationship between ourselves and between others and 'things', and how these relationships are experienced, including between students, educators, IT staff and technology
- corporeality, as the embodiment of people in the experience and how this is perceived, including in relation to being co-located with other students yet distanced from educator
- spatiality, as how space is experienced and (re)shaped by particular bodies and practices, including the influence of the type of space, such as a dedicated room with videoconferencing equipment or a common use area in a home or its geographical location
- temporality, as how time is experienced (not necessarily chronological time), such as does 'time fly' or does it progress slowly during videoconferencing, what is involved in preparing for videoconferencing, how time is structured within those online spaces and how it is differently and unequally experienced
- materiality, as our experience and interaction with material things, including interactions with technology during the videoconference and what is linked or divided.

Additionally, for materiality informed by van Manen's lived cyborg relations in the human experience (2014), we were attuned to videoconferencing as:

- being experienced as taken-for-granted (where we might get frustrated if someone is not immediately contactable)
- being experienced ontically (involving the philosophies we draw on to make sense of rapid advances)
- being experienced ontotheologically (where debate happens about issues such as technology facilitating the graduation of more health professionals with poor job prospects)
- being experienced as technics (where the videoconferencing unit and screen may be experienced as the embodiment of the teacher or learner)
- being experienced aesthetically (in relation to its desirability or undesirability).

We did not intend to resolve the complexity inherent in these lived cyborg relations through our research. Rather we embraced this complexity to understand our research as a starting point for ongoing discussion and consideration.

Rural as a complex, socially-constructed concept

To explore rural as a complex, socially-constructed concept we draw on social geographers who grapple with the concept of 'rural'. In doing so, we frame the predominant reliance on geographical classifications to conceptualise rural as a double-edged sword: that is, the classifications are important for funding to address inequities *but* can misrepresent the diversity of rural and underplay the challenges of defining it. Below we explain key understandings that have informed our beginning of grappling with the concept of rural.

According to the social geographer Hallnäs, "rural has never been, nor will ever be a fixed concept" (2017, p. 3). Rather it is produced and enacted by people, and deliberately or unknowingly reinforced or changed by people. Importantly, understandings for different purposes are evident in current use. For example, the reliance on objective understandings of rural is evident in the current use of geographical classifications, such as population density, distance to services or postcodes in strategies addressing healthcare workforce maldistribution. Idyllic notions of rural are evident in the current interest to escape aspects of urban life, particularly highlighted in increased interest in moving to country and coastal areas following the COVID-19 lockdown.

Conceptualisations conveying rural as a 'meta' entity risk making inappropriate generalisations, such as in the following quote where rural is portrayed as a homogenous entity shaped by the needs and perceptions of others:

> In our supposedly modern and urban age, when we have grown accustomed to thinking of the rural as something old and tired, too exhausted and passive to resist and get out of the way of cities and city people, we still find repeated reminders of the alertness and vigour of rural places, ideas and lives. […] Everyone is talking about food [from rural areas] again, worried about its dearth, its excess and its quality and lack thereof. […] The rural also pleases us, soothing our worries through book and film and song, and rewarding our ambitions through walks and weeding and woodcutting. In all these ways and more, the rural remains an active feature of our lives, continually confronting us and our politics materially, symbolically and relationally. (Bell, Lloyd & Vatovec, 2010, p. 205)

Contributing further to understandings of rural in social science discourse, Pandey (2003) identified four uses of the term as follows: rural in reference to (i) whatever is non-urban in character is rural; (ii) the census variables of employment, population, migration, housing conditions, land use and remoteness of rural denoting its socio-spatial characteristics; (iii) social relations of production related to capital use and accumulation in the primary production; and (iv) experience of rural, in the sense of informing what people think is rural. Pandey notes that "in a paradigmatic sense, the first two are closely linked with empirico-positivism, the third one is an orthodox Marxist construction, and the fourth is a phenomenological one" (p. 34). Articulating these different uses further emphasises that the term *rural* is laden with values and interests.

Aligning with values and interests inherent in the use of the term rural, are different purposes for defining the term (see Table 1). Lexical definitions can reflect rural as needing to be seen in relation to a reference point of not being urban. Stipulative definitions are used for resourcing and evaluating strategies, such as addressing disparities faced by people living in rural areas. In strategies related to rural health, geographical classifications highlighting rural disadvantage dominate. However, due to this reliance on such stipulative definitions it is easy to overlook that *rural* is a socially-constructed notion and that such definitions are limited representations of rural. Such limited representations can lead to a feeling of being misrepresented, such as what is expressed in the experiential response shown in Table 1.

Table 1: Examples of meanings and different purposes related to defining rural

Examples of meanings of rural	Purpose behind the definition
"relating to, or characteristic of the country-side rather than the town" Source: https://www.lexico.com/definition/rural	**Lexical** definition, reporting the common usage of words (Swartz, 1997)
"Remoteness Areas divide Australia into 5 classes of remoteness on the basis of a measure of relative access to services. Remoteness Areas are intended for the purpose of releasing and analysing statistical data. Access to services are measured using the Accessibility and Remoteness Index of Australia (ARIA+), produced by the Hugo Centre for Migration and Population Research at the University of Adelaide. […] It provides users with a coherent set of standard areas that they can use to access, visualise and analyse statistics." Source: https://www.abs.gov.au/websitedbs/d3310114.nsf/home/remoteness+structure	**Stipulative**, specifying how a term should be used to restrict (or narrow) a meaning in a particular context (Swartz, 1997)
"I am more than my postcode" Source: Personal communication	**Experiential** exploration (Swartz 1997)

Acknowledging the socially-constructed nature of rural forewarns us of the risk of misrecognising the complexity and diversity of rural, particularly if defined without explicitly stating the purpose of the definition of rural and critiquing the associated limitations. Being critically aware of rural as a complex socially-constructed concept is important to ensure that rural people are not misrepresented as being a single entity and misrecognised as being products of deficit locations. Bennett et al. (2019, p. 1987) highlight that a "natural tension exists between the need for an official definition and the more subjective notion of what it means to be rural". Our research embraces and sits within this tension. In this way we were aware of avoiding misrepresenting rural people as passive recipients of policies and services and, equally importantly, avoiding 'the rural' being seen as a homogenous group living in a homogenised location where "one does not have to have a material location in the rural to mobilise to gain power over it" (Bell et al., 2010, p. 216). As local people involved in strategies addressing our local issues in rural locations, we sought to bring critical awareness and an intention for praxis based on "reciprocal processes of reflection/action/action/reflection" (Burke et al., 2017, p. 41).
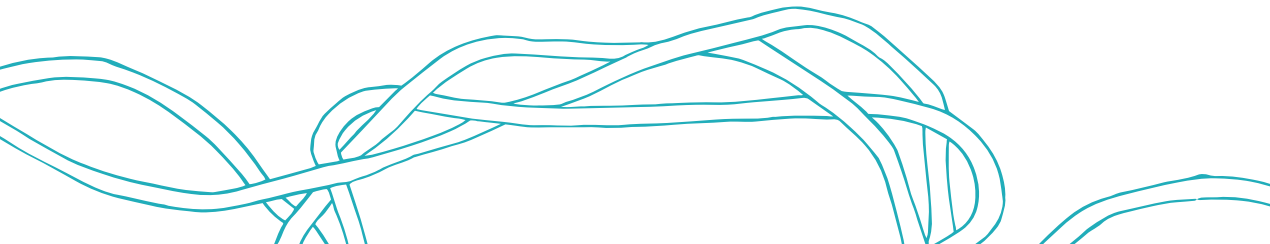
Critical awareness

In being critically aware of videoconferencing as a complex, socio-material practice and rural being a complex, socially-constructed concept, we were attuned to the implications of *difference* inherent in the *inclusion* of students and teachers from rural locations through videoconferencing. For students, educators and other staff from rural locations there is a risk that the transformation into 'normalised personhood' involves embodying the sentiment of 'you have to be metro to matter'. In relation to the issues of *misrecognition* that arise from videoconferencing, we were concerned about constructing students and teachers from rural locations as being "different and 'Other'" (Burke et al., 2017, p. 131). Paradoxically, rural misrepresentation may increase rural disadvantage by increasing the divide between 'rural' and 'metropolitan' and the 'Othering' of rural healthcare professionals and healthcare services. In relation to addressing healthcare workforce maldistribution (which is an aim of UONDRH), it is important that healthcare in rural areas is not just about negative stereotypes or idyllic notions but is seen as a meaningful and worthwhile place to live and practice by all healthcare professionals, regardless of where they were trained. Being open to the experiences of misrecognition, we wondered if and how videoconferencing may exclude students and educators in rural locations from participating fully in higher education. We were aware that "praxis foregrounds

the need for critical reflexivity in dynamic spaces constituted of complex relationships of power and difference" (p. 28). Thus, our reflection involved in acknowledging, unsettling, grappling and interrogating (informed by Burke et al., 2017), and noting that our ongoing cycles of 'reflection/action/action/reflection' are continuing past the completion of this project. Importantly we sought to identify the tensions inherent in videoconferencing for student learning in rural areas. In doing so we were inspired by Wulff's proposition for tensions:

> Tension as a 'resistor of resolution' provides the interactive relational space for communication, initiative, and diversity of thought. Holding tensions between viewpoints/perspectives (not to freeze it, but to make and keep room for it) can become a sort of crucible of thinking – a place and space for innovation and creativity. (Wulff, 2017, p. 2)

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Method

Context of this research

This research was undertaken in the University of Newcastle Department of Rural Health (UONDRH) in Tamworth, an inland regional city about three and a half's drive from Newcastle. UONDRH explores workforce maldistributions leading to inequities of healthcare access. Having students living and learning in rural areas is a strategy to address these issues. As a funder of UONDRH, the Australian Government Department of Health's Rural Health Multidisciplinary Training (RHMT) program is key to this strategy. The RHMT encourages the recruitment and retention of rural and remote health professionals through its aims of "providing effective rural training experiences for health students" and "increasing the number of rural origin health and medical students" (Department of Health, 2017). The rationale is that "local access to clinical training for students of rural and remote origin and extended clinical exposure of other students interested in rural health care would increase the likelihood of employment uptake in these areas post-graduation". (Humphreys & Lyle, 2017, p. 2). Thus, under this RHMT program healthcare students, and particularly those from rural areas, are encouraged to pursue a career in rural practice through opportunities provided for them to complete part of their studies in rural locations.

UONDRH was established in 2001 and has evolved to "support students and staff through placements and learning in medicine, nursing, nutrition and dietetics,

physiotherapy, medical radiation science, occupational therapy, pharmacy, speech pathology and social work" (UONDRH, 2021, n.p.). Such placements are integral to the practice-based pedagogy of health professional education. UONDRH academic educators are key to the learning that occurs on and between these placements. Placements occur across a range of disparate geographical sites (including major training sites of Tamworth, Armidale, Moree, Coffs Harbour, Port Macquarie and Taree, and minor training sites at Narrabri, Gunnedah, Quirindi, Glen Innes and Muswellbrook). Embedded in teaching strategies at UONDRH is the intention to provide effective learning experiences and positive rural exposure for healthcare students, and thus ultimately prepare them for patient-centred collaborative practice in rural areas. Living and learning through our UONDRH sites necessitates the regular use of videoconferencing as a tool for participation in teaching and networking. Videoconferencing enables students' participation in academic coursework delivered to other students on main campus and in educational sessions delivered from major UONDRH training sites to minor training sites, as well as UONDRH academic educators' participation in ongoing professional development and communities of professional practice. Managerial, administrative and IT support for education in rural areas can also rely on videoconferenced communication for planning, resourcing and reporting.

Living and learning in rural areas can involve 'deficit' and 'value' discourses. While deficit discourse tends to relate to widely-recognised, explicit issues such as workforce maldistribution or rural challenges, value discourse tends to be more local and interpersonal, and relates to the experiences of people in their communities. Importantly, 'deficit' and 'value' can be intertwined, with the subtlety of deficit-related terminology flowing so easily that it can be part of 'taken-for-granted' wording. We illustrate this claim through comments from UONDRH graduates about their experiences living and learning in Tamworth. These comments, displayed with their permission on our website (UONDRH, 2021), highlight the subtleness of deficit and value portrayals (deficit and value words and phrases are italicised for emphasis):

> Completing my rural placement gave me a broad understanding of *some of the factors* people living in rural and remote areas *face*, including cultural, socio-economic and geographical *issues with accessing healthcare*. (Cassandra)

> My placement also fostered my *love* for rural health and all the *advantages* and *challenges* it has to offer. (Danielle)

> Our goals have always been to contribute to addressing the *health inequities and barriers* that face rural and remote communities within Australia….. It also

gave us a broad scope of practice, professional development support and extra-curricular community engagement activities that helped to *develop our real-world skills*. (James)

> I think that doing rural placements really helps you to see the *impact* you can make on a sometimes *resource-poor scenario* and helps you become *inspired* about the *work you can do.* (Cale)

Elements of 'deficit' discourse are evident through reference to disadvantage of rural areas (in relation to inequitable access to health care), challenges to people (in relation to living in a rural area) and difference of communities (being that it is not 'metro'). Elements of 'value' discourse are also evident through reference to opportunities for people (for development of practice and for future work) and motivations for change (to contribute to healthcare and fostering positive perceptions for rural). Thus, it appeared that the 'deficit' issues underpinning the resourcing of the RHMT were embedded in the discourse of rural health professional education, with the lived experiences qualifying and contradicting this 'deficit' discourse.
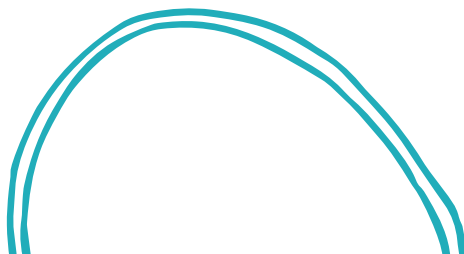
Research approach

This project was undertaken by a multidisciplinary research team of 15 educators and researchers from a range of different healthcare professions disciplines (in alphabetical order, medical radiation science, medicine, nursing, nutrition and dietetics, occupational therapy, pharmacy, physiotherapy and speech pathology). Appropriate to our use of a social justice framework and our intention of informing critical awareness, we researched in the critical research paradigm. Our choice of collaborative dialogical inquiry (based on Bridges and McGee, 2012) enabled our rural educators to have a voice as 'researchers' rather being 'researched'. This was important for us to transform our practice, as well as being consistent with our social justice intention. Within the collaborative dialogical inquiry phases of *initiation* and *cohesion* we grappled with concepts and constructed meaning through formal and informal conversations between co-researchers, dialogues with literature and reflective writing. In the ongoing collaborative dialogical inquiry phases of *immersion* and *consolidation* we engaged (and are continuing to engage) with 'insight cultivating material' from individual and collective reflective conversations with educators from UONDRH not involved in the research team, UONDRH students, managers and IT staff, as well as educators on main campus.

Data collection

We audio-recorded for analysis 21 reflective conversations involving 37 people (15 co-researchers and 22 participants). Ten reflective conversations were with groups (five of which were undertaken with ourselves as co-researchers and five with groups of students, educators or IT staff). Eleven reflective conversations were with individuals. A total of 37 people across a range of professions and roles were involved as outlined in Table 2. The audio-recordings were transcribed professionally. A sub-group of five co-researchers took responsibility for checking the transcripts for accuracy and coding data in NVIVO, according to themes identified by the research team.

Table 2. Participant Characteristics

	Health Disciplines								Non-health	Total
		Medical	Nursing			Physio-therapy	Phar-macy	Speech Path-ology		
Co-researcher participants*	2	1	3	2	1	3	1	1	1	**15**
Invited participants**	5	4	0	1	5	2	0	1	4***	**22**
TOTAL	**7**	**5**	**3**	**3**	**6**	**5**	**1**	**2**	**5**	**37**

*All co-researchers were from the same rural site
**5 participants were from a metropolitan site: 2 participants were from another rural site
***IT and managerial roles are grouped to ensure anonymity

Data analysis

Analysis moved from descriptive to more conceptual notions. The final themes were adjusted following discussions between co-researchers. Our intention during our analysis was to develop a 'whole view' of videoconferencing. Making this 'whole view' explicit provided a viewpoint from which we could reflect on the pedagogical and equity implications. Our understandings of Van Manen's (2014) life world existentials provided the lens we initially brought to our analysis. We understood these "universal themes of life" (p. 302), as *relationality*, *corporeality*, *spatiality*, *temporality* and *materiality*. Our reflection on pedagogical equity implications involved *acknowledging, unsettling, grappling* and *interrogating* (informed by Burke, Crozier & Misiaszek,

2017) data, themes and insights in order to identify tensions to hold for ongoing discussions.

We were a large team of co-researchers engaging with a large amount of data. Accompanying the richness that comes from the diverse perspectives within the research team, were the pragmatic issues of co-ordinating conversations between us all. While conversations were facilitated by our co-location they were challenged by our different availabilities. To enable participation by all co-researchers we negotiated progress with our emerging understandings through formal update-emails, ongoing informal conversations, curiosity, willingness and goodwill.

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Findings

In this section we introduce the model we developed through the research and explain the four dimensions. Each domain is described and illustrated with quotes. At the end of the description of each domain we identity a key tension related to the domain with the intention that this tension be held for ongoing discussion in relation to its implications for *equity* and *pedagogical approaches*. In the quotes, pseudonyms are used for participants. The role of participants is described as 'student', 'educator' or 'non-educator'. This latter term encompasses IT staff and managers and is used to prevent identification of individuals. All students and non-educators were from rural locations, whereas educators were from both. Where it is appropriate to identify their location as being main campus we do so.

Introducing the model conceptualising "joining via technology from…"

The model encapsulating our findings describes our 'whole view' of videoconferencing for student learning in rural areas. Our model, shown in Figure 1, is titled "joining via technology from…". The term "joining via technology from…" is an important aspect of the model, encompassing the relational and temporal ("joining"), techno-material ("via technology"), spatial ("from…") and corporeal dimensions ("learning"). This term keeps in view all these dimensions, emphasising the videoconferencing as a socio-material practice with pedagogical implications rather than a technology dominating the learning experience. However, in acknowledging that the term "joining via technology from…" learning does not 'easily roll off the tongue', we will only use the term in association with the name of the model. The intentional alliteration and play on words for the titles of the domains acts as a 'cognitive coat hanger' to aide remembering, emphasise the interrelatedness of the domains and provide scope to capture their inherent complexity. We intend that these domains can provide the basis for ongoing explorations of *equity* and *pedagogical approaches* by ourselves and others.

TENSION BETWEEN:

what may be gained
VERSUS
what may be lost

TENSION BETWEEN:

focus on information technology
VERSUS
focus on people

CURRENCY as value for acquiring…

Exchange of location
AND
Learning over distance

CURREN(T)CY as up-to-datedness for…

Information Technology (IT)
AND
People's capability to use IT

CADENCE OF CONVERSATION in relation to…

Flow of the beginning
AND
Pace of the session

CONNECTEDNESS between people and…

Resources
AND
Other people

TENSION BETWEEN:

those "joining-via-technology from…"
VERSUS
those who are face-to-face

TENSION BETWEEN:

supporting planned connections
VERSUS
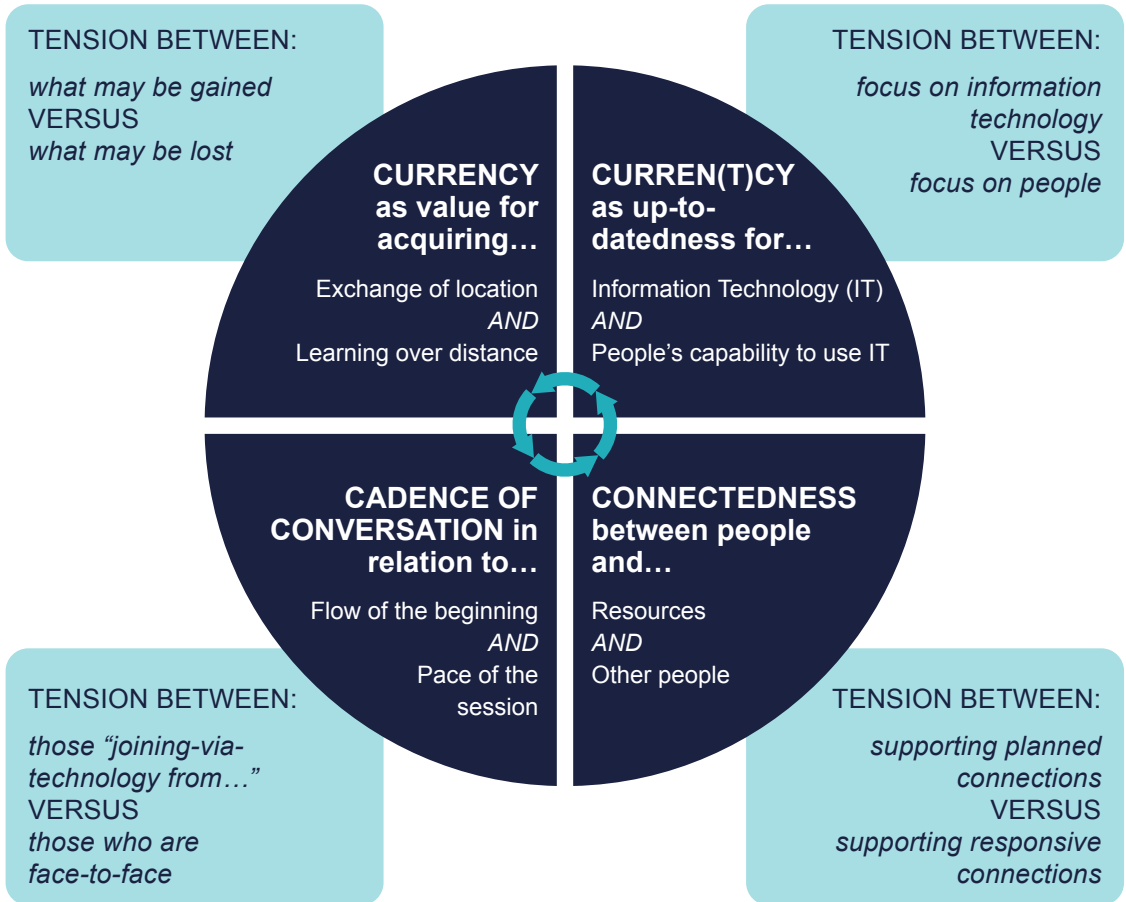*supporting responsive connections*

Figure 1. Model conceptualising "joining via technology from…"

Explaining and illustrating the dimensions of the model

In this section the model conceptualising "joining via videoconferencing from …" is explained by highlighting the complexity of each domain and the range of disparate but interrelated elements within. Each element is illustrated by a quote or series of quotes. The list-like presentation of brief quotes is deliberately used to give a sense of the dynamic, rapidly-changing nature of videoconferencing, as well as the often-experienced lack of smoothness and sense of discomfort that can accompany videoconferencing. After explaining the elements in the domain we introduce the key tension interpreted for each domain. These tensions are integral to the 'so-what' for each domain that informs questions for reflection later in this report.

CURRENCY as value for acquiring… is the first domain and introduces videoconferencing as a medium for exchange. By using videoconferencing, students are able to exchange their location of learning from metropolitan to rural. Advantages of this exchange were evident to the people involved, regardless of their location. In the quotes below staff felt they were part of the solution to support education in a rural location and to address the maldistribution of health professionals.

> It enables the students to receive their education in rural environments [Educator MI]

> The success [of addressing the maldistribution of health professionals] seems to come from having a rural student from the start and then to keep them rural. [Non Educator YS]

However, smooth implementation of videoconferencing could not be taken for granted. People across different sites needed to work together. At times this was beyond the control of the educators and students in the rural area. The sense of frustration and helplessness inherent in the quotes below resulted from the rural educator and rural student facing what they found to be insurmountable challenges related to two different situations.

> We did have some difficulties with some staff on the main campus who didn't want to do it basically. [Educator SR]

Then they started videoconferencing and it never worked, no one was there, or the room was locked or all sorts of fun things, or they moved to an hour earlier and no one knew. [Student JZ]

Paying attention to frustration or helplessness arising from these and other situations highlights that videoconferencing can come at a cost, a cost that impacts negatively on widening participation. Making such costs explicit is important for understanding the equity implications of this domain.

Misrepresenting the presence of people in rural areas could be a cost of videoconferencing. Although people in rural areas may be visible on the screen their presence can be overlooked. This rural educator described her awareness of this invisibility during meetings she facilitated with other rural sites.

It can be quite easy to forget about [us on] the other site [videoconferencing in]. [Educator NR]

Misrepresenting the opportunities in rural areas is another cost of videoconferencing. What is visible on the screen may not reflect the extent of what is important to people experiencing living and learning in rural areas. The student providing the quote below expressed concern that her video-conferenced presence could not portray the richness of the educational opportunities of her rural context.

There are so many opportunities that

we get. I get extra clinical days at the hospital, ILMs [interprofessional learning modules], so much support from everyone here. I don't think they [metropolitan students] see what happens behind the scenes. They only see me in lectures. ... Probably to them I'm just a person on the screen. [Student DE]

Ironically, another cost of the increased communication facilitated by videoconferencing (and other digital means) is that it can misrepresent rural experiences through assumptions that rural needs to remain a place of deficit and disadvantage. In the following quotes rural educators describe the pressure from some colleagues on main campus to avoid letting students living and learning in a rural area have what they, as educators, deemed unacceptable educational advantages through locally-offered opportunities.

We've been told that they [students learning in the rural area] can't come and sit in on my clinics because that 'advantages' them. [Educator YS]

We have been directed by [metropolitan campus] to not 'advantage' our students [in the rural area] with our tutorials. […] we have been instructed that students that undertake rural placements are not to be advantaged by having [extra tutorials] […] that give them an advantage in an exam. [Educator JN]

The discomfort with rural advantage can be contrasted with the ease of metropolitan

disregard of rural disadvantage. Such disregard can leave lasting memories as evident in this educator's vivid description of her memories of videoconferencing as a rural student. Her evocative quote serves to remind us of the cost if videoconferencing is a token educational gesture for those in rural locations; a gesture founded in the deficit that can dismiss any sense of value.

> I was on the receiving end of video conferencing at uni, and we hated it without reserve. […] It was like a point was always made 'Oh well if it drops out, so be it, you've missed that core content', or 'Sucks to you being in the country, that's what you get for being in the country, if you had stayed in the city where the real [professional practice] happens you would be all right'. That was the feeling that we always got. You would ring and say 'The thing has dropped out, the link is bad' and it's was 'Oh well see you, go look at [a text book]'. It was a very second-class citizen kind of arrangement and there was no pretending there was equity involved at that point. […] Whenever I think about video conferencing now, I very much think of it as a 'Ah the uni is throwing us a bone, it's a lot of lip-service'. [However] that may not be the case now. […] I probably come to it with a bias. [Educator NE]

Importantly, however, people in rural areas are not the only ones experiencing costs associated with videoconferencing.

Videoconferencing can also disrupt learning at the face-to-face site into which the students are videoconferencing. The main campus educator below describes some challenges related to having to comprise her teaching session to incorporate the participation of students from rural sites.

> If I have a tute or a lecture and there's no videoconferencing, then I like to keep it messy and noisy and have a few things going on at once. But with the VC [videoconferencing] you can't do that, because as soon as there's any noise, the person at the other end can't hear. You can't have a discussion. So I say if we want to talk, it's only one person at a time because they can't hear. You have to set that ground rule at the start. Whereas in a normal discussion you'd let them have that little side-line discussion because that's good and then they might bring back some point with that. [Educator EY]

Similarly, being aware of the disruption to the flow of the educational session, another metropolitan educator articulates the need for a frank discussion about what can be acquired through videoconferencing and at what cost.

> I'm not sure that this is effective. It's kind of doing it [videoconferencing] on the surface. But until we know everybody or each stakeholder's perspectives in this and have a real frank airing of the shit, and the dirty

laundry and the clean laundry then we are just going through these motions, but to what end? […] It's a conversation that we need to be having more of. [Educator DQ]

This domain highlights that videoconferencing cannot only be seen in relation to what is acquired. It also needs to be understood in terms of what is lost. Identified in this domain of **CURRENCY as value for acquiring…** is the tension of *what may be gained VERSUS what may be lost*. Thus, there is sense of bartering that needs to be made explicit. This tension highlights the need for ongoing discussions between all those involved in videoconferencing to address the risk of people from rural areas being misrepresented through videoconferencing. Misrepresentation arising from this domain relates to invisibility, pressure to maintain a role of disadvantage and responsibility for any negative impact on people's learning in face-to-face sites. Further, misrepresentation of rural through tokenistic educational gestures calls for further discussions between educators at different locations to explore what changes would be required to the discourse and the experience.

CURREN(T)CY as up-to-datedness for…

CURREN(T)CY as up-to-datedness for… is the second domain and refers to the up-to-datedness of both information technology and people's capability to use this technology in their current situations. Within these two broad areas are numerous, constantly changing elements. This domain captures interplays of 'up-to-datedness' and 'current situations' that were important for videoconferencing. Some elements are upfront and obvious, while others highlight the importance of being aware of 'behind-the-scenes' moments.

The importance of up-to-date equipment and stable internet connections is obvious, yet could not necessarily be taken for granted, as noted by the following educators.

It was connecting but one screen was green, and you could hear but then it was dropping out [...] I think it was old equipment. [Educator YS].

[Problems are] mainly due to [poor] connection. I mean the frustrations of the connection happening. […] Often they'll be helping out running and getting another phone number or something like that. [Educator IS]

Once again with about ten minutes to go she dropped out and again sent me a message 'I'm so sorry, the same thing happened', and she didn't re-join because the connection wasn't re-established within that one-hour tutorial. [Educator ID]

Keeping up-to-date with how to use technology is similarly obvious, yet could also be challenging, and unsettling for all involved.

> People just assume because they're [the lecturer is] quite high up there [in the discipline hierarchy], that they're going know all that stuff. That is not fair on [them]. And also, it's been 35 minutes and [they] still haven't inserted [their] USB into the computer because [they] can't find where it goes. [Student JZ]

> He tried a couple of times, probably ten minutes at a couple of lectures, trying to get it to work. We sort of just gave up on it in the end, because it was causing tension and people were butting heads over it and everything like that. We were caught in the middle, so we said, 'Don't bother, we'll work it out on our own'. [Student UI]

Developing such capability could be challenging for a range of reasons, including discomfort or unfamiliarity with technology, lack of opportunities for instruction, the range of software programs available, behind the scenes requirements, varied skills required to maintain engagement of all participants, and the need for videoconferencing etiquette. As outlined in the list of quotes below, these challenges encompass areas that require personal reflection, external instruction, ability to schedule, feedback from and for others and awareness of what others see on the screen. Such challenges

highlight that up-to-datedness can depend on the person, their experiences and their current situations.

> I am not very forward thinking [with videoconferencing], I'll embrace it, but a lot of the things are to do with me getting really comfortable with the technology. [Educator FV]

> Not having been formally instructed… it is like, holy flip, what, what do you do, what, where, how? […] sometimes it's 'You should learn that or you should know that'. [Educator MI]

> I think there's another level of learning to use it [the videoconferencing hardware and software] which I haven't played around with yet and I'm not quite game. […] I've seen it fail a few times there [on another site] where people are trying to ask questions and we can't hear them. [Educator NB]

> I did a Collaborate session on Panopto last week […] you can link to your desktop, link to Blackboard, you can link to YouTube. […] Skype just never seemed to work very well... whereas Zoom is just easy, I think because it's linked into our Outlook. [Educator NB]

> There is a lot of setup time and scheduling appointments and getting them to turn up at the right place and the right time and equipment being on and determining who's at the receiving site. [Educator NT]

Could they [educators on the main site] please a) remain in the one spot so we can blooming see them and not move out of scope and b) direct questions to our students, or [use] any basic VC etiquette type training. [Educator MI]

I make sure my buttons are done up […] and I'll make sure that my blinds are closed so that there's no glare. [Non-educator IK related to participating in a meeting]

Adding to the challenge of using information technology, is that videoconferencing requires the capabilities of a range of people, some of whom work behind the scenes. In the following quote a student describes how the importance of behind-the-scenes work becomes very evident when something goes wrong.

The one that didn't work well was when the cameras were turned off on main campus because I think, the story goes, somebody was doing maintenance and had to switch them off and didn't switch them back on again. [Student DE]

Importantly, when videoconferencing flowed well, behind-the-scenes work was largely invisible.

They communicate behind the scenes and it's just all done for me, so I don't have to do a thing. [Student DE]

We're trying to make it [videoconferencing] look like it's light and breezy and airy and positive. [Educator DQ]

However, when videoconferencing did not go smoothly deficit perspectives of rural areas could be reinforced.

If we do try VC live and they see the Department of Rural Health and all the tech issues […] reinforcing the deficit that's now beamed to main campus, [which portrays to the main campus] that if you go on rural placement that will be you in the corner of a screen with. [Educator AG]

CURREN(T)CY as up-to-datedness for… involves the importance of having up-to-date information technology and ensuring people have capability for its use: obviously there is no point in having one but not the other. Thus, this domain highlights a tension between a *focus on information technology* (ensuring up-to-date hardware and software) VERSUS *a focus on people* (ensuring up-to-date capabilities to use information technology). The tension relates to challenges of appropriately balancing the alignment between the two. While university-wide use of up-to-date technology can be planned for, its implementation in teaching is dependent on the capability of educators and others to use and support the technology. Thus, while a one-size-fits-all approach may potentially enable people access to IT hardware and software, a one-size-all approach does not reflect the individual pace of learning or how to use it. Appropriate alignment of technology and people's capability to use it is key for supporting students living and learning in

rural areas. The equity implication in this domain is a sense of missed opportunity for participation due to the myriad people, processes and capabilities involved, and the misrecognition through invisibility when that approach does not 'fit'. There is a sense of needing 'the stars to align' for videoconferencing to proceed, but the 'stars' are not equally visible: the presence of technology is easily visible but the presence of capability can be more obvious in its absence. In the domain, complexity of the technological practice required for videoconferencing is foregrounded.

CONNECTEDNESS between people and…

CONNECTEDNESS between people and… is the third domain and highlights the scope of connections required for videoconferencing between people and resources, and people and other people. The importance of connections has been alluded to in the previous domains. However, a more detailed exploration is warranted due to the number, variety and form of connections required.

Some connections can be planned for and resourced. Obviously, educators require videoconferencing resources that are planned for in advance and are available and working when needed. Such connectedness between people's needs and resources provided can be very evident when absent (and has been highlighted in some of the elements discussed in other domains). Below, a main campus educator explains the solution she devised to connect the two groups of students.

> So for next year we've got one room that has the video conferencing so I had to reorganise the whole timetable with six forms to be filled in tomorrow and we've got to probably, although it's not great, have the lecturer speaking on Zoom but the students on a laptop in the corner interacting with the group. So that's not ideal because [of] the room, because the facilities management haven't installed the right equipment. So just from a purely technical point of view, moving forward it's been a bit of a nightmare to do it. [Educator RZ]

Even when resources were planned for and available, people still needed to work together to ensure videoconferencing connections. Having IT staff available to provide appropriate help with technology issues was an important aspect of connecting people across distance. IT staff were important for resolving problems and for planning the alignment between technology and capability, as described by these educators.

> I know that if there's a Zoom link to put in the meeting number and that's about it. If that doesn't work, then I am running asking for help. [Educator ID]

Through working together and understanding videoconferencing needs, appropriate resources could be developed by IT staff. In the quote below the rural educator highlights the importance of close relationships between IT staff and educators, as was a feature of the rural site.

> The [IT] team have put together a PDF folder. It's not an idiot's guide but it's a how to use it. As we're using it more and finding glitches, they're putting how they solved our problems into this new form. [Educator RZ]

Being able to see each other could be important for connecting with and relating to each other during videoconferenced sessions. While the potential for visibility could be planned for, resourced and improvised, people in the room also needed to take responsibility for participants' ability to be

seen and heard. The quotes below highlight the importance of students being visible to educators' perceptions and being 'present' for learning.

> When we weren't on screen though, the lecturers would think we'd cut out, so that was the other reason we stayed on screen because there was a couple of times when we just hadn't adjusted the cameras and they were like, '[Regional town] are you there?'. So, for the lecturer, it was being able to see us, they knew that we were in the room and they were connected in. [Student BZ]

> In lectures you really thrive on people interacting. You want that response, whereas sometimes it just literally feels like you're sitting there talking to yourself [during videoconferenced sessions] and I find that hard to teach that way. […] [You want to know] that they're listening, they are just there, that they haven't walked off to get a cup of tea. [Educator YS]

However, there could be limits on how much control people had over the nature of their visibility over videoconferencing. A large image, suitable for an educator presenting a videoconferenced session, could be unsuitable for participants videoconferencing into a face-to-face session. This mismatch between what was provided and what was required could lead to uncomfortable connectedness, as described below. Missing in these situations was scope to be

responsive to the needs of different situations, either through resources or people's capability to use them.

> Got used to the idea [of being the only face on a big screen]. […] The idea of everyone seeing me was a bit strange, but I was fine from the very start. [Student DE]

> I think they probably feel quite miserable because everyone's looking at them. [Educator RZ]

> If you don't mind being seen on the screen in main campus [you can get out of lectures what you need]. [Student BZ]

Beyond visual connectedness, educators using participatory pedagogical approaches needed to be aware of interpersonal connectedness for the development of trust between participants. Being attuned to what was happening in the moment and being responsive to interpersonal subtleties was important, as described below by educators in one rural area videoconferencing with students from another rural area.

> It's harder because you're not in person to pick up on some of the subtleties that are coming down the computer screen. […] I try to make sure I can build trust with them [as a group participating through videoconferencing] so that I can make sure my tutorial is effective because they feel they can be open and honest with me, and [so] I can facilitate deeper learning or different learning. [Educator XE]

> If the students didn't know each other well, that often impacted on the engagement and the interaction with each other as a group. Because the trust is already a barrier and then you've got an extra layer when you're using a platform that either they don't value or they've not had any experience with it, so getting around that. [Educator NT]

The presence of relationships between people involved in videoconferencing could be valuable during unexpected disruptions to the videoconferenced sessions. In the following quote an educator describes how friends provided solutions when the internet went down during a session of student presentations.

> *So depending on who was in the lecture and whose friends were here basically we asked the students to call their friends and hand the phone to the presenter. But that was hit and miss. Phones were going flat, presenters were leaving the phone on the podium and walking around the room, so we couldn't control that. But that was the only solution we had. [Educator JE]*

This **CONNECTEDNESS between people and…** domain involves a tension between *supporting planned connections* (that are resourced by the organisation and enable access to videoconferencing equipment and formal processes for IT support) VERSUS *supporting responsive connections* (that are evolved by and responsive to people's different requirements and enable the development of localised responses to particular situations and emphasise the importance of relationships). This tension highlights that what cannot be easily predetermined and measured is also important. This domain reminds us that it is insufficient to focus on providing people with appropriate equipment that can be easily seen and accounted for. Attention is also required to provide people involved in videoconferencing with opportunities to develop relationships to draw on to use equipment effectively and to interact with others during videoconferenced sessions.

CADENCE OF CONVERSATION in relation to…

CADENCE OF CONVERSATION in relation to… is the fourth domain and focuses on the flow and pace of the session through the educator's deliberate use of technology and teaching strategies for participants' engagement in the sessions. The term 'cadence of conversation' comes from a student's words and this term was chosen for the domain title to capture the temporality and responsiveness of a videoconferenced session. This domain encapsulates the need for educators to plan the flow of the initiation of the session and the pace at which it progresses, while at the same time being responsive to the needs of the situation. As described below, this could be done though personal readiness for flexibility and pedagogical preparation to be sensitive to what can facilitate and/or impede students' learning across their different locations and scopes for participation.
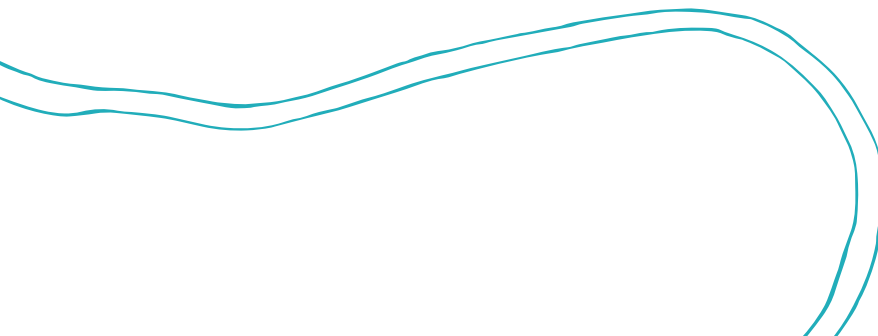
Important to the flow of session was what the educators did in the time immediately prior to participants joining the videoconferenced session. The educator below describes the importance of deliberately planning this time.

> I do try and log in early, make sure my end is sorted, check for any teething problems. So depending what it is and who it's with, I might factor in a bit more lead time. [Educator EN]

Being flexible to respond appropriately to disrupted beginnings could be important for the flow into the content of the session. The educator below explains his approach to delays and his understanding of students' frustrations. Such strategies can help avoid misrecognition of participants who are unable to join 'in time'.

> Maybe I'm more tolerant of the little hiccups that video conferencing does have, like the delay in starting. So I'll start my commentary to the students, not the lecture, but start talking about other things as we're getting set up, then say we're right to go now. Whereas others might expect everything to go seamlessly and start. […] We do historically get feedback of frustrations from the students with the delays to the start of lecturers, because we are just trying to get everyone on board with the multiple locations, and they're not automatically coming on board. [Educator IS]

Checking connections between sites was time well spent for the beginning flow of the session and could set up processes of engaging across distance. These processes could flow into the rest of the session. The following quote from a student describes such a situation, highlighting its value for remembering students from rural areas through the educational session.

> [At] the beginning [of the video-conferenced educational session], going around, asking everyone, […] 'Tamworth can you hear us' and we just wave. 'Wave at us if you can hear us' and always just checking in to each place. 'Any questions?' and then look at the screen. they're like 'Any questions from the other side?', so it's good. So just always remembering [us], keeping [us] in mind, that sort of thing. [Student NR]

Understanding the equipment was also important for the flow at the beginning of the session through to the rest of the session. The educators in the following quotes describe how understanding the positions of the cameras was integral to knowing how to see the students and what they see of them. They brought this information with them and drew on it as the session progressed.

I think we worked out that when you turn to look at them, they see the back of your head. [Educator AY]

The people you're talking to are here in front of you but the rest of them are on the screen behind you, or they're not visible to you, you either have to turn to look at where they are. [Educator EN]

Once the session began, attention to the pace of the session was similarly important. The importance of keeping videoconferencing students in the educator's view could shape the pace. Deliberately checking in on students during the session could be important and needed to be incorporated into the pace of the session.

Because you're not quite sure [what the videoconferencing students can see], even in a lecture room, sometimes you have to step away from the screen and check that what you're looking at on your little monitor is still visualised well on the big screen itself. [Educator IS]

Students valued the extra effort it took to include them in sessions. The student in the following quote acknowledges the difference made to involvement across distance when educators ensured that face-to-face questions were heard by all.

So when people ask questions in the audience, in those sites, you can't hear them because they're not on the microphone. So the people [educators] who were the best at [running the videoconferenced educational session] would be always acknowledging us and then when a question's asked saying, 'All right, question from the audience is, blah, blah, blah', and then they give the answer. So we know what the question is. [Student NR]

Being aware of the environment into which the students were videoconferencing could also be important for pace of the session. Educators were aware that pace of the session could be severely impacted by the need to use microphones, as described below.

With the videoconferencing sometimes we have had to have the students use microphones in the lecture theatre and they're reticent to do that. They're not used to talking on a microphone […] The spontaneity of responding is lost because they have to un-mute, but if they keep it un-muted we hear the ancillary shuffling of papers and keyboards noise and people walking in the hallway and they have sidebar conversations just like our local students, but it gets picked up more loudly. [Educator DQ]

We also had a few hiccups probably a year or so previously, in that too many people had their mics on or not muted and we got a bit of distortion so there was the complication of if you're going to talk, turn on your mic and then turn it off again, so it didn't distort everybody's perception. [Educator FV]

As explained below, educators' pre-planning for appropriate locations for students' videoconferenced discussions could be important for maintaining the pace of and involvement in the session.

It was a bit tricky to hear [when videoconferencing] because of so much background noise. He [the educator] will introduce the activity and then say 'you three, you are in a group'. And so the other two people [and me on the laptop go] to a different room. They'll be able to speak to me. We can hear each other. If the laptop is left in the main room where everyone is having a discussion it doesn't work at all. [Student DE]
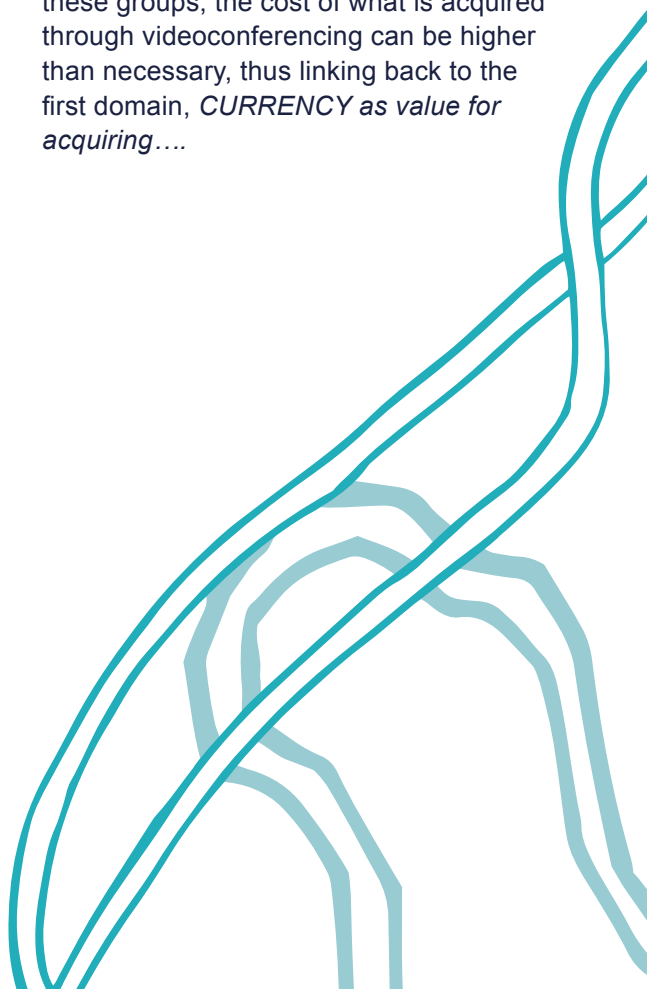
As a domain, **CADENCE OF CONVERSATION in relation to…** involves a tension between those who are *participating face-to-face* (to minimise the disruptions to their learning) VERSUS those *who are 'joining via technology from…'* (to maximise their involvement). The role of educators is key to this domain and this tension. The 'cadence of conversation' or flow and pace of the education session differs when students join through videoconferencing, as opposed to when they are all in the same room and participating face-to-face. The meaningfulness of the educational session can depend on an individual educator's strategies for facilitating connection, involvement and participation of video-conferencing students. How the educator plans the session provides an important foundation for students' participation. Related to this tension is the need to be aware of the balance between the potential for what can be achieved in videoconferenced educational sessions and what is required in relation to the outcomes of the educational session. Thus, importantly, this domain links back in a cyclical way to the first domain, **CURRENCY as value to acquiring…**.

Highlighting the interrelatedness of the dimensions and tensions of the model

In our description of the model we considered the domains separately. In this section we acknowledge the order in which we presented them and highlight their inherent reliance on one another. The domains in the *model conceptualising learning through "joining via technology from…"* are introduced in a deliberate order.

The first domain, *CURRENCY as value for acquiring…,* provides the basis for developing a shared understanding of what is possible and what may need to be compromised. A shared understanding of what is important provides important reference for all involved, shaping honest expectations and informing authentic actions. Lack of shared understanding risks videoconferencing being a token gesture that reinforces dominant actions and stereotypes. The second domain, *CURREN(T)CY as up-to-datedness for…,* emphasises that technology is brought into being by *people*. Without realising the importance of people and their varying capabilities, information technology can feel as though it dominates rather than facilitates the experience of learning over distance. The third domain, *CONNECTEDNESS between people and…,* identifies the importance of both planning and being responsive to what is required in the situation, highlighting that attention needs to be paid to evolving relationships between people that can be difficult to control and measure. The fourth domain, *CONNECTEDNESS*

between people and…, is the domain that is eventually located in the time and space of the actual videoconferencing session and addresses approaches to teaching that may involve deliberate changes to the more familiar face-to-face strategies. Importantly, considerations need to be given to those "joining via technology from…" and those who are face-to-face in the educational session. Without due consideration of both these groups, the cost of what is acquired through videoconferencing can be higher than necessary, thus linking back to the first domain, *CURRENCY as value for acquiring….*

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Implications of the model for critical awareness

The model of "joining via technology from…" highlights some of the complexities of widening participation for students living and learning in a rural area. Commitment to videoconferencing needs to be 'more than a tick box', thus opening up a rich space for embracing equity implications and pedagogical approaches. For example, without acknowledging and addressing the *costs* of videoconferencing, resentment towards the distanced students can inadvertently develop. And without awareness of what can be lost through the invisibility of rural, deficit perspectives can be reinforced. Deficit perspectives of rural can be further reinforced when information and capabilities to use it are not up-to-date and engagement through videoconferencing is poor. Preferencing reproducible resources, such as equipment, over relationships between people risks undervaluing the responsive actions that are required for the flexibility that learning (and support for learning) and videoconferencing often demand. However, this rich space for embracing equity implications and pedagogical approaches cannot be taken for granted. First videoconferencing needs to be seen as pedagogical praxis rather than as a form of technologically mediated interactions.

Our research highlights the importance of ongoing critical awareness of videoconferencing as a socio-material practice and of rural as a complex, socially-c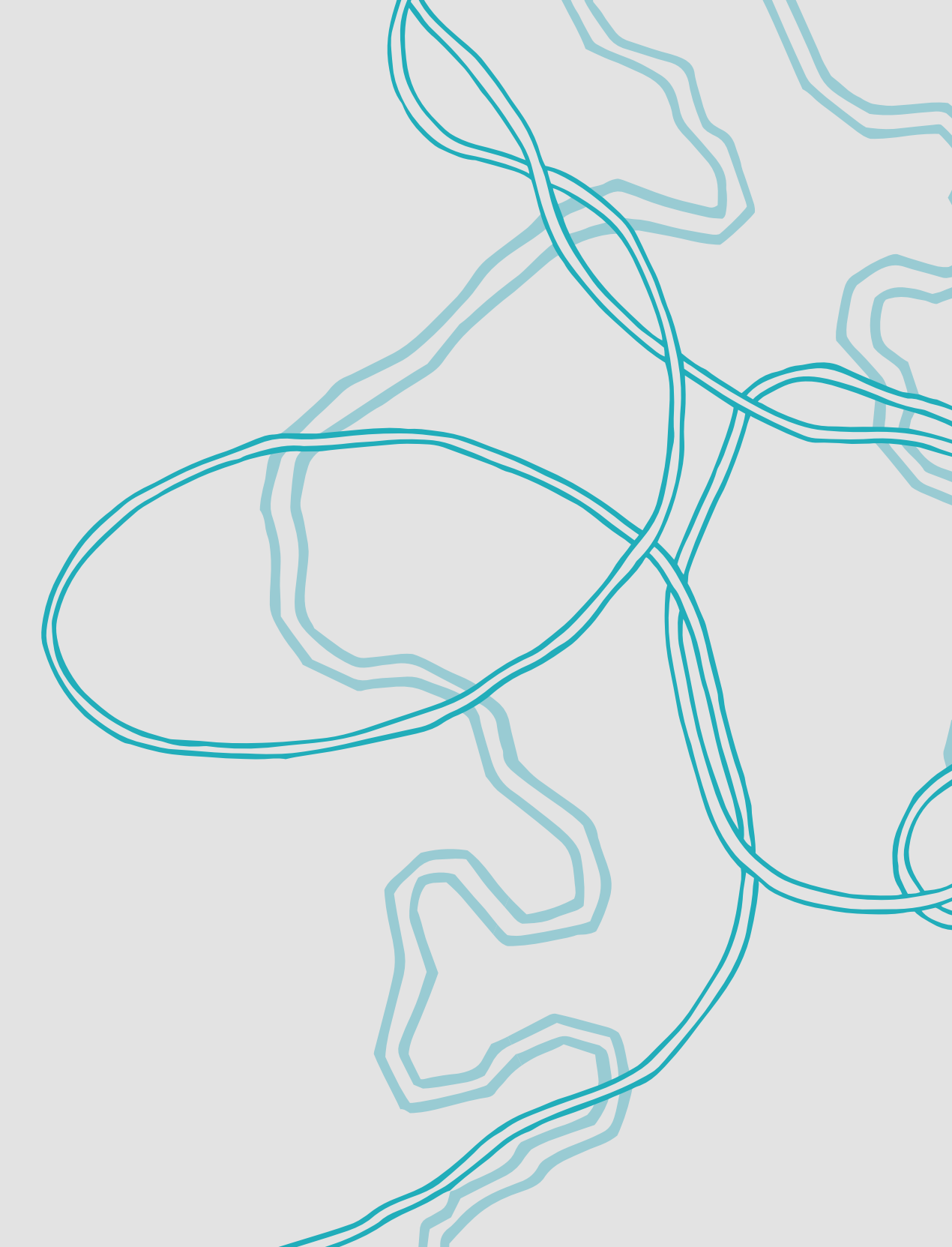onstructed concept. As a socio-material practice, videoconferencing has both explicit and implicit elements. Explicit elements are the visible aspects of technology, the recognised capabilities for its use and the articulated experiences as it is being used. Implicit elements relate to the relationships inherent in videoconferencing's meaningful contribution to learning that can be difficult to see, and hence value. Our research highlights the importance of both the explicit and implicit elements. Importantly, as a socio-material practice, videoconferencing's contributions to learning can be *shaped by people*, rather than people needing to be *beholden to videoconferencing as a status quo*.

Importantly, in relation to socio-material practice and videoconferencing's contributions to learning being *shaped by people*, we identified the importance of deliberately attending to the multiple relationships between people involved in planning, developing, resourcing, supporting and using videoconferencing. It is through these relationships that videoconferencing can be shaped for parity of participation. People in all roles related to videoconferencing (including educators, students, IT staff and managers) need to participate meaningfully in discussions, plans and actions related to videoconferencing. This broad participation provides a strong foundation to enable all people involved in videoconferencing (and supporting videoconferencing) to have equitable access to technology, progress their capabilities to use it and develop

approaches to teaching that enable those who are "joining via technology from…" to participate meaningfully.

In our research, *rural* tended to refer to de-identified background locations, features of which were not visible on the screen. Multiple implications of this backgrounded status can be identified, including: the tendency to homogenise rural or render it invisible; the risk of overlooking important influences of locational aspects of learning; the missed opportunities for developing richer understandings of rural; and the wasted potential for socially-constructed meanings of rural to be challenged. These limitations relate to the notion of rural as a location. Importantly, there is a need to differentiate between rural as the descriptor of the location and rural as the descriptor of the *person*. Without this differentiation the diversity of *people* living and learning in rural areas can be overlooked, remaining further in the background of de-identified location. What is not seen, cannot be engaged with. Misrecognising the diversity of people in rural areas can misrepresent their value to higher education communities and the challenges they may face to participate in higher education. Supporting our claim is Burke et al.'s contention (2017) that "in order to have parity of participation, the person must be recognised and have access to representation as a fully valued member of the community" (p. 31). This participation can also be extended to having input into critiques of the definitions used to categorise them.

Parity of participation in videoconferencing for students in a rural area relies on a pedagogical interplay between people, location, equipment, capability and approaches to learning. Relationships are integral to this interplay. Appreciation of the socially-constructed nature of the concept of rural requires that the location, the people within the location and the people's experiences within this location, are first made visible in order that preconceptions are recognised and explored. The model produced during this research provides scope for embracing the complexity of the socio-material practice of videoconferencing and the socially-constructed nature of rural.

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Recommendations

Engaging with tensions

Informed by a social-justice framework, critical awareness for widening participation provides a strong theoretical basis for meaningful changes in videoconferencing practice, through attention to *difference, inclusion, misrecognition* and *misrepresentation* (Burke, 2012). The tensions identified in this research provide the focus for such critical awareness through ongoing dialogue and conversations. Explicitly underpinning critically-aware dialogue with social justice theory can inform praxis through the development of communities of praxis where change is not only possible, but also happens. Importantly, communities of praxis are different from the more familiar (for many of us) communities of practice. While both involve shared disciplinary knowledge and practice, they differ in their approach to shared values. In communities of practice shared values are taken for granted and not necessarily interrogated, whereas communities of praxis deliberately open up time and space to make shared values explicit for their ongoing interrogation (Burke, Crozier & Misiaszek, 2017). From our perspectives as health professionals, we acknowledge that this is an ongoing process for us. As a community of praxis, there is still much for us to learn about social-justice theory and its inter-relationship with the practices in which we engage and so we are continually developing new insights. Below, we have preproduced the tensions from the *model conceptualising "joining via technology from…"* and we invite readers to join us in our ongoing grappling with the

complexity of videoconferencing, 'rural' and parity of participation using a social justice lens. We re-emphasise our claim that as a socio-material practice, videoconferencing's contributions to learning can be *shaped by people*, rather than people needing to be *beholden to videoconferencing as a status quo*.

CURRENCY as value for acquiring...
This domain involves a tension between:

what may be gained
VERSUS
what may be lost

CURREN(T)CY as up-to-dateness for...
This domain involves a tension between:

focus on information technology
VERSUS
focus on people

CONNECTEDNESS between people and...
This domain involves a tension between:

supporting planned connections
VERSUS
supporting responsive connections

CADENCE OF CONVERSATION in relation to...
This domain involves a tension between:

those "joining-via-technology from..."
VERSUS
those who are face-to-face

We return to Wulff's wise proposition to reiterate a tension as a resistor of resolution

> that provides the interactive relational space for communication, initiative, and diversity of thought. Holding tension between viewpoints/perspectives (not to freeze it, but to make and keep room for it) can become a sort of crucible of thinking – a place and space for innovation and creativity. (Wulff, 2017, p. 2)

We contend that there is scope for each of us involved in our various roles in higher education to reflect on the following question:

> How can I make, or maintain, space and time for embracing tensions and grappling with their implication for parity of participation?

Important for facilitating dialogue and critical conversations about these tensions and their related questions is the *having openness to engage with different experiences and perceptions, facilitating curiosity and critique,* and *embracing the tensions.*

Having openness to engage with differences

The quality of *openness* to engage with different experiences and perceptions relates to *critical forms* of self-reflection underpinned by a social justice framework. Openness sets up the readiness for the dialogue and conversations about the tensions identified in this research. As educators of health professionals, engaging with different people is integral to our practice, as is reflection on our clinical and educational practice. For us, this openness needs to shift to incorporate an ongoing focus on things that we take for granted about our videoconferencing and the notion of rural, importantly using critical awareness as a lens for social justice. People from other disciplines are welcome to join us as we continue to develop our critical awareness and our understandings of social justice. Accordingly, in this section we provide questions that will underpin our reflections. These questions may be useful to others in their reflections. We acknowledge that these questions are presented in in a list-like (and perhaps daunting) manner, and invite the reader to explore them in their own time and space, without 'racing through them' in a checklist-like manner.

The first set of questions relates to the opportunities to reflect on the findings of this research. Examples of self-reflective questions to explore *openness* to engage with differences are:

- How do my experiences with videoconferencing and 'rural' influence my perceptions?
- How might my perceptions about videoconferencing and 'rural' influence my experiences?
- What do I know of others' experiences and perceptions?
- How do they resonate or challenge my experiences and perceptions?
- How might this give meaning to my own perceptions and experiences?

These insights have potential to inform a collective conversation about openness to engage with differences and different perceptions. A question for such conversation is inspired by Lenzi's question (2020, p. 1): in relation to social justice "if we were to continue this conversation in the direction that is more helpful to you, what direction should we go?". This question assumes an openness to explore what is important within a social-justice framework to prevent reproducing directions and purposes that support inappropriate self-interest.

Facilitating curiosity and critique

We propose that curiosity and critique are important for exploring equity and pedagogical implications of videoconferenced learning. Through this research we aimed to make the implicit explicit and provide opportunities to interrogate, through a lens of social justice, what we tend to accept as part of everyday life. Thus, we intend that our model provides 'food for thought' for such critique and interrogation. However, it can be difficult to find **time and space** to stop and be curious and critical about taken-for-granted aspects of practice. Below we offer some questions for ourselves and others to **create and engage** with this important, but challenging, space:

- What structures are in place that inhibit self-reflections about the tensions (identified in relation to the model)?
- What structures are in place that inhibit conversations about the tensions?
- How could this be otherwise?
- What structures are in place that inhibit these tensions being held for ongoing inquiry?
- How could this be otherwise?
- How can conversations about equity and pedagogy be expanded to include all sectors within the university?

Once time and space has been created, we pose the following questions to critique **relationships** at the core of using video-conferencing for students' learning in rural areas, including:

- Who is involved in planning, developing, resourcing, supporting and using videoconferencing?
- How do the people in these roles currently work together?
- How could it be otherwise?
- What happens to our curiosity and critique if we take a social justice lens to these questions?
- If needed, who can assist with such a lens and how do we access their assistance?

Similarly, questions explicitly related to the **visibility** (or invisibility) of rural in video-conferencing are suggested as follows:

- What do I see of rural?
- What do I experience of rural?
- What do I expect of rural?
- How can this be otherwise?
- What happens to our curiosity and critique if we take a social justice lens to these questions?
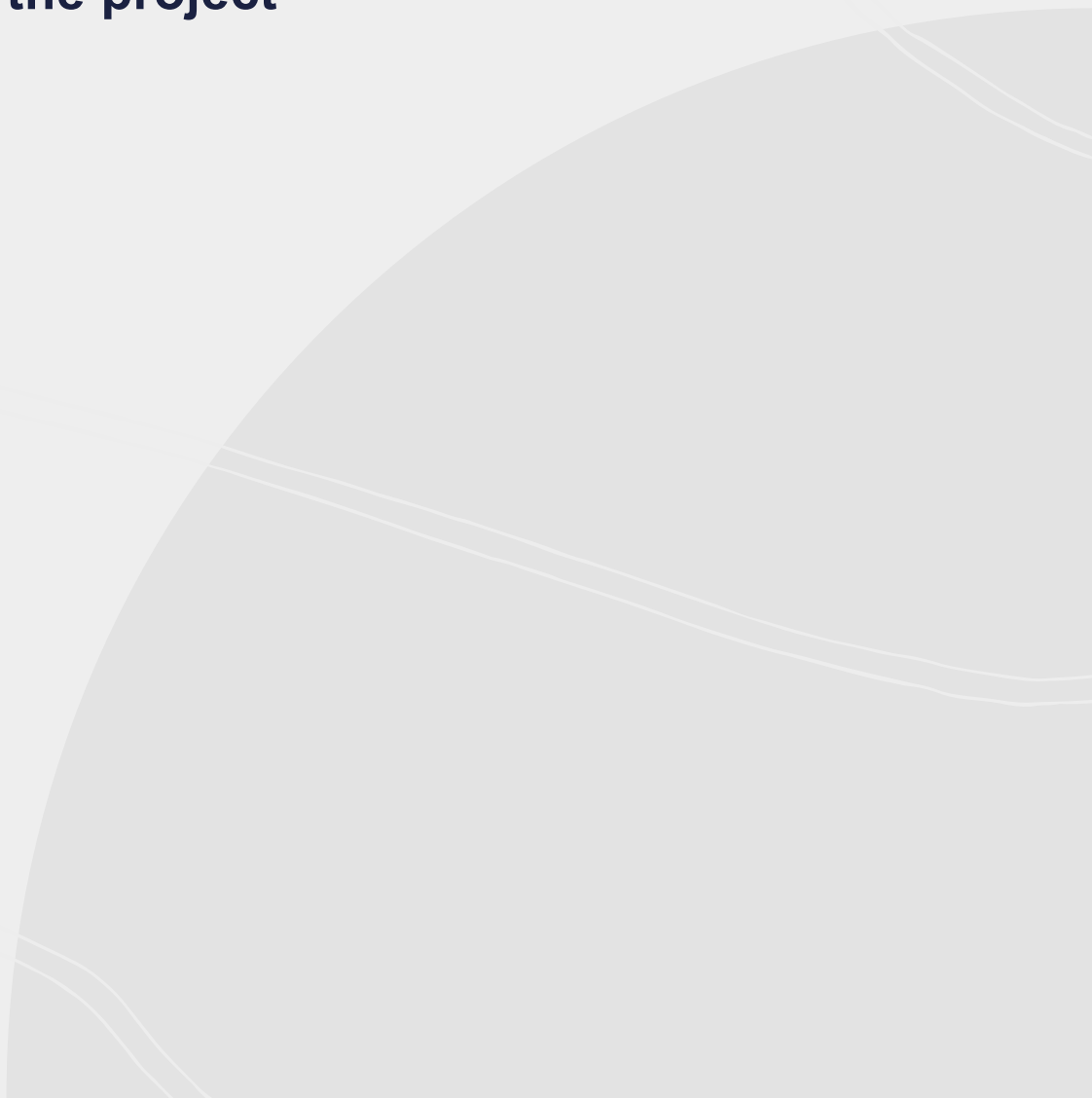- If needed, who can assist with such a lens and how do we access their assistance?

These conversations can form the core of a community of praxis for ensuring appropriate and meaningful learning through "joining-via-technology from…". Importantly, this community of praxis can expand to include others who may similarly value actions and reflections founded in social justice theory, and assistance with this.

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Our final reflections on the project

We continue to engage individually and collectively with insights we developed through our research. Interestingly, we wonder if, during the rapid widespread use of videoconferencing during COVID-19, others from non-rural locations experienced the same frustrations and insights we did, and, if so, what are the implications of this? So we ponder on more questions, including (provided here as text rather than a list to reflect their evolving 'free flow', rather than deliberate, nature): *Is there scope for them to learn from our experiences? Will they remember and learn from their experiences so that those of us in rural areas can be 'in sight, in mind'? What will happen as we return to a 'new normal'? Will those of us in rural areas be once again relegated to a screen with the accompanying issues of invisibility? Will videoconferencing be remembered by those in metropolitan areas as positively liberating during a time of social isolation or negatively constraining because face-to-face was not an option? What will these views mean for videoconferencing with people in rural areas? Will the increased interest in travel to rural areas (while international travel is not possible) increase understanding of the differences inherent in the not-very-specific term 'rural'? Or will 'up close' holiday experiences and understandings of particular rural areas mask the views of differences between different communities, locations and people within them? What progress has been made that we can celebrate and build on?*

We are still grappling with these questions, including how they relate to equity implications, pedagogical approaches and what we can continue to learn from social justice theories and praxis. In doing so we are keeping our interest sparked by using different ways of engaging with the topic and our social justice framework.

We are currently exploring *50 word stories* as a creative way to capture our insights, experiences, changes of practice and aspirations. Such creations can be shared for personal or collective reflection. The only stipulation for a *50 word story* is that they are 50 words long, no more, no less. Below are examples of *50 word stories* (that we, the co-authors) developed as this report was being written. The stimulus for the creations was: *Can you portray a reflection or action that relates to your current experience of videoconferencing for students' learning in rural areas?* Our co-researchers' stories remind us of the need to appreciate and critique progress (that is, to stop and acknowledge what is working and consider why it might this be so) while simultaneously seeking to identify 'new' and 'old' challenges (to keep identifying areas for transforming practice).

We conclude this report with five 50 word stories.

In the before times there was the here and the others. The core and the visitors, observing on double mute in the faraway, while the discussion took place elsewhere. Then the plague came, the distancing, and suddenly the playing field was levelled. All were visitors together, equally distance, equally included.
[Lauren]

Post-Covid-19 resumption of face-to-face learning incorporating VC for rural students is no longer a battlefield! Is it the transition from hard-wired VC technology to web-based applications on familiar hand-held devices? Perhaps personal discovery that VC fosters connections that hitherto were challenging? Maybe, simply, it's now normalised? Whatever... I'm thrilled.
[Emma]

For once we are not the unique sub group, frustratingly delaying the lesson and frantically checking numbers and cameras.

Everyone in class waiting.

Watching.

Now we are the norm, a face amongst many muted faces. Conversation will be jolted, disjointed.

But we listen, we learn, as one disconnected group. Together.
[Katrina]

"Where is the Zoom password

You would think I would remember to have it on hand by now...

Hello – Can you hear me?
Oh, sorry, I'm still muted!

Now... I will just share the screen
(at least I will try).

Glad that is over...

How was that for you?"
[Miriam]

COVID-19 has meant that students are more socialised to videoconfrencing when they arrive. They are more comfortable engaging with the technology but have also developed innovative bad habits to disengage with the teaching. Now I grapple with new ways to engage them and drag them from their other screens.
[Luke]

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References

Adams, C. & Thompson, T. (2011). Interviewing objects: including educational technologies as qualitative research participants. *International Journal of Qualitative Studies in Education*, *24*(6), 733–750.

Al-Samarraie, H. (2019). A Scoping Review of Videoconferencing Systems in Higher Education: Learning Paradigms, Opportunities, and Challenges. *International Review of Research in Open and Distributed Learning*, *20*(3), 121–140. https://doi.org/10.19173/irrodl.v19120i19174.14037

Australian Collaborative Education Network. (2020). *Practical guidelines for using the framework to assure institutional quality of work integrated learning.* Retrieved from https://acen.edu.au/resources/practical-guidelines-for-using-the-framework-to-assure-institutional-quality-of-work-integrated-learning-wil/

Australian Government Department of Health. (2017). Rural Health Multidisciplinary Training (RHMT) Program. Retrieved from http://www.health.gov.au/internet/main/publishing.nsf/content/rural-health-multidisciplinary-training

Australian Government Department of Health. (2020). Modified Monash Model. Retrieved from https://www.health.gov.au/health-workforce/health-workforce-classifications/modified-monash-model

Bell, M. M., Lloyd, S. E. & Vatovec, C. (2010). Activating the countryside: Rural power, the power of the rural and the making of rural politics. *European Society for Rural Sociology*, *50*(3), 205–224.

Bennett, K. J., Borders, T. F., Holmes, G. M., Kozhimannil, K. B. & Ziller, E. (2019). What is rural? Challenges and implications of definitions that inadequately encompass rural people and places. *Rural Health*, *38*(12), 1985–1992.

Bridges, D. & McGee, S. (2010). Collaborative inquiry: Process, theory and ethics. In J. Higgs, N. Cheery, R. Macklin & R. Ajjawi (Eds.), *Researching practice: A discourse on qualitative methodologies*. Rotterdam: Sense.

Brown, A. (2009). Digital technology and education: Context, pedagogy and social relations. In R. Cowen & A. M. Kazamias (Eds.), *International handbook of comparative education*. Springer Netherlands: Dordrecht.

Burke, P. J. (2012). *The Right to Higher education: Beyond widening participation*. London: Routledge.

Burke, P. J., Crozier, G. & Misiaszek, L. I. (2017). *Changing pedagogical spaces in higher education: Diversity, inequalities and misrecognition*. London: Routledge.

Correia, A., Liu, C. & Xu, F. (2020). Evaluating videoconferencing systems for the quality of the educational experience. Distance Education, 41(4), 429–452. https://doi.org/10.1080/01587919.2020.1821607

Crucitti, J., Hyde, C. & Stokes, M. A. (2020). Hammering that Nail: Varied Praxis Motor Skills in Younger Autistic Children. *Journal of Autism and Developmental Disorders*, *50*(9), 3253–3262.

Gergen, K. J. (1978). Toward generative theory. *Journal of Personality and Social Psychology*, *36*(11), 1344–1360.

Hallnäs, D. (2017). The rural – knowing where we are by retracing our steps. Swedish University of Agricultural Sciences. Department of Urban and Rural Development Degree project. Second cycle, A1E Agronomy Programme – Rural Development Uppsala. Retrieved from https://stud.epsilon.slu.se/10095/1/hallnas_d_170405.pdf

Humphries, J. & Lyle, D. (2018). University Departments of Rural Health: Is a national network of multidisciplinary academic departments in Australia making a difference? *Rural and Remote Health*, *18*(1), 4315–4326.

Karal, C., Cebi, A. & Turgut, Y. E. (2011). Perceptions of students who take synchronous courses through video conferencing about distance education. *The Turkish Online Journal of Educational Technology*, *10*(4), 276–293.

Lenzi, B. (2020). Reflections on a Conversation: Then and Now. *International Journal of Collaborative-Dialogic Practices*, *10*(1), 110–111.

MacLeod, A., Cameron, P., Kits, O. & Tummons, J. (2019). Technologies of exposure: Videoconferenced distributed medical education as a sociomaterial practice. *Academic Medicine*, *94*(3), 412–418.

Pandey, V. (2003). Re-presenting Rural: From Definition to Discourse. *Sociological Bulletin*, *52*(1), 32–52.

Regional Education Expert Advisory Group. (2020). *National Regional, Rural and Remote Tertiary Education Strategy: Final Report*. Retrieved from https://www.dese.gov.au/access-and-participation/resources/national-regional-rural-and-remote-tertiary-education-strategy-final-report

Swartz, N. (1997). Definition, dictionaries and meanings. Retrieved from https://www.sfu.ca/~swartz/definitions.htm

University of Newcastle. (2021). Work integrated learning: About WIL. Retrieved from https://www.newcastle.edu.au/engage/business-and-industry/work-integrated-learning/about

University of Newcastle Department of Rural Health (UONDRH). (2021). About Us. Retrieved from https://www.newcastle.edu.au/faculty/health-medicine/department-of-rural-health/about-us

University of Newcastle Department of Rural Health. (2021). Our graduates. Retrieved from https://www.newcastle.edu.au/faculty/health-medicine/department-of-rural-health/our-students

Van Manen, M. (2014). *Phenomenology of Practice*. Walnut Creek, California: Left Coast Press.

Wulff, D. (2017). *Brief Encounters with the Taos Institute: Holding Tensions*. Retrieved from https://www.taosinstitute.net/images/2017-4-Dan%20Wulff-Holding%20Tensions.pdf

About the illustrations

The illustrative elements for Out of Sight, Out of Mind were developed by Joel Grogan. They build on illustrations developed in collaboration with Simon Munro, that traced the grass cordage made as part of the research methodology for the research project Yearning to Yarn (Munro et al., 2019). Joel explains:

"The featured designs trace the Topography on Kamilaroi Country, where the research took place. The topography is overlayed with tracings and drawings of phone and electrical cords. These two elements reflect the location of the research and the tangles and tensions with communication for remote learning discussed in the report.

In conversation with Simon Munro about the site, I came to understand that it was traditionally used as a lookout by local mob, with surrounding areas being used for ceremony. Out of respect, I just depict the curvature and overall shape of the elevated topographic perspective."

Joel Grogan is a Kuku Yalanji Man from Cairns Far North Queensland and has lived for some years on both Awabakal and Darkinjung Land.

He has a background in art and design and is currently investigating cultural protocols for Indigenous art.

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