When constellations align: What early childhood pre-service teachers need from online learning to become confident and competent teachers of the arts

Melissa Cain | Katie Burke | Eva Nislev

1Faculty of Education and Arts, Australian Catholic University, Banyo, QLD, Australia
2University of Southern Queensland, Toowoomba, QLD, Australia

Correspondence
Melissa Cain, Faculty of Education and Arts, Australian Catholic University, 1100 Nudgee Rd, Banyo, QLD 4014, Australia. Email: melissa.cain@acu.edu.au

Abstract
Pre-service teachers need to experience authentic arts activities to confidently impart the quality arts engagement that young learners deserve. Most importantly, these experiences should contribute to shaping emerging teacher identities. We sought to understand the student experience of online early childhood pre-service in their arts courses, and what they need to become competent and confident teachers of the arts. Using data from 51 responses to a 24-question qualitative survey distributed across three Australian universities, we engaged in the methodological process of qualitative bricolage to present a story constellation offering important insights for online teacher-educators in the arts.

Keywords
arts education, early childhood (EC), narrative inquiry, online learning, teacher identities
### Key insights

**What is the main issue that the paper addresses?**

This article addresses the impacts of learning the creative arts (music, dance, drama, visual art and media arts) online in higher education, in particular, how embodied praxis is replicated in the online space.

**What are the main insights that the paper provides?**

Data obtained from pre-service teachers studying early childhood education in Australia reveal how participants experience arts education through online education and their self-identified needs to become confident teachers of the arts.

### INTRODUCTION

The benefits and importance of a rigorous and purposeful education in the creative arts (hereafter ‘the arts’) are abundantly supported. Access to the arts is a basic human right (United Nations, 1989, Article 31.1). Within early childhood (EC) contexts, engagement in the arts promotes a multitude of physical, social, creative, cognitive, emotional, aesthetic and psychological benefits (UNESCO 2022) such as aural perception, language skills, verbal memory, spatial reasoning, self-regulation, empathy, curiosity, cultural understanding and intrapersonal intelligence (Barrett et al., 2018; Dinham, 2020). It is thus vital that initial teacher education (ITE) adequately prepares future teachers with the confidence and competence to provide rich and authentic arts experiences in their own EC classrooms. However, the recent, rapid growth in the delivery of ITE degrees online has led to new questions about the effectiveness of ITE delivered in this manner (Dyment & Downing, 2020), particularly in highly embodied learning domains such as the arts (Allen et al., 2014). This paper explores our own engagement with these questions as arts educators who deliver courses online.

Educators repeatedly affirm that a rich and authentic arts education should be experienced as praxis: physical, embodied learning that utilises the senses, often in collaborative activity, and which may require specialised materials or spaces (Dinham, 2020; Roy et al., 2019; Wright, 2012). As a group of arts educators with a collective 40 years’ experience teaching in Australian higher education, we have questioned: what happens when pre-service teachers (PSTs) learn about and through the arts via online experiences, separated from their teacher and peers by distance? How do the nuanced and crafted activities that support student growth through personal practice translate in cyberspace? In particular, how are play-based arts pedagogies integral to early years learning, experienced online? As arts educators and researchers, we wish to know how our teaching is received online, and how PSTs are engaging and connecting with the arts on a personal level. Do they get (understand, appreciate and know on a deeper level) the arts, as their educators intend? Does their learning empower them to both understand and enact the transformative nature of the arts for early learners? Using an online survey, we sought qualitative responses to help us come to understand: *How do early childhood pre-service teachers feel about online learning, what experience do they bring to their learning, and what do they need to become confident and competent teachers of the arts?*
LITERATURE REVIEW

The value of arts praxis

Overwhelmingly, researchers and practitioners agree that physical, embodied and sensory learning is one of the most meaningful and appropriate ways to experience the arts (Dinham, 2020; Ewing, 2010). Carefully designed arts activities therefore permit children to ‘express and communicate feelings, ideas, concepts and understandings that can be difficult or impossible to express in other ways’ (Dinham, 2020, p. 96). The importance of sensory exploration cannot be underestimated, and young children require a responsive educator who is experienced in and can support the appropriate development of skills as well as the use and care of materials to achieve the achievement standards of the curriculum (Early Childhood Art Educators, 2016, Principle 5).

As young children grow, the arts are key to their developing understandings of their world (Gibson & Ewing, 2011), enabling them to communicate thoughts and feelings in multiple ways (Wright, 2012). The use of symbol (inherent in the arts) precedes formal language engagement; when children use one object to represent another ‘they practice the symbol making process necessary to read, write, and understand math’ (Brown, 2017, p. 166). Further, engagement in the use of symbolic movement in the early years develops ‘bodily strength, flexibility, endurance, eye-motor coordination, synaptic smoothness, and hemispheric transmission’ (Faber, 2017, p. 175). As such, it is essential that pre-service teachers develop not only a rich understanding of the value of the arts, but also the pedagogical content knowledge to both cultivate a safe learning environment in which creativity and self-expression can thrive (Dinham, 2020) and facilitate arts experiences that effectively support diverse children in their unique development. This is no small task and requires a complex interplay of theory and practice for the development of confident and competent graduate teachers (Alter et al., 2009).

Repeatedly, the arts education literature in ITE affirms the value of ‘an awareness of practice from a practitioner perspective’ (Cutcher & Cook, 2016, p. 3), or arts praxis, as a fundamental element of preparing future classroom teachers for effective arts education practice. Importantly, effective arts praxis goes beyond experiencing the arts in action. Drawing on the work of Freire (1993), praxis involves a cycle of action and reflection, connecting theory to practice through which transformative understanding and practice can be developed. By engaging in arts praxis, PSTs experience the power of the arts first-hand, develop their own knowledge and skills as arts practitioners and have an opportunity to reflect on arts pedagogies in action, all through which they might better support their future learners’ own artistic learning (Burke, 2021). However, as will be explored later, opportunities to engage in such experiences are more challenging for PSTs when undertaking their studies online.

The important role of arts educators

Eliot Eisner (2002) noted that arts educators help their students to build perception, recognition, sensitivity and imagination, and teach them the skills needed to make sense of their environment. Early childhood teachers are acknowledged as having expert knowledge about young children, their development and learning preferences. As co-constructors of this knowledge, EC teachers carefully scaffold opportunities for children to make meaning in multiple ways. Successful arts education in EC is thus a collaboration between child and teacher, where the teacher takes the role of supportive critical friend in a shared investigation (Knight, 2013). When teachers explicitly teach about art elements such as colour, materials, tools and so on, they empower the children to extend their practices. Crucially, this requires a proactive arts educator, which implies a degree of confidence, competence
and willingness to support artistic endeavours (Cutcher & Cook, 2016). This has a number of implications for PSTs.

Importantly, in the Australian context, there is evidence that EC educators express a distinct lack of confidence in delivering authentic arts programs (Macdonald & Tualaulelei, 2018). As a result, the majority of new teachers entering the profession ‘demonstrate reluctance and are sometimes even fearful of implementing arts learning experiences in their classrooms’ (Cain & Nislev, 2018, p. 474). Beyond the Australian context, the literature notes that pre-service teachers’ attitudes, confidence and misconceptions ultimately impact on their motivation to plan quality educational experiences for their class (Garbett & Tynan, 2004; Kenny et al., 2015). With such a lack of confidence, the arts may be consigned to the margins within early years contexts. To develop the necessary experience, one EC arts educator in research by Baker et al. (2016) stresses that PSTs must ‘engage with the Arts personally themselves, before they can even begin to be passionate about their role as teachers of the Arts’ (p. 38). Similarly, the research of Burke et al. (2021) demonstrates that when students are provided with mandated hands-on arts learning experiences, their understanding and confidence for the classroom in this discipline is improved. Given the significant links demonstrated between arts confidence and classroom competence (Alter et al., 2009), the case for adequate opportunities for pre-service teachers to develop their own confidence through experiences in arts praxis in order to better support children’s praxis and expression through the arts is strong (Cutcher & Cook, 2016). The challenge for online PST courses therefore becomes how to facilitate such engagement.

Online delivery of the arts

Increasingly, higher education is moving to online platforms, offering convenience, flexibility and accessibility for students. There has been particularly significant growth in the field of ITE through exclusively online courses (Dymant & Downing, 2020; Johnson, 2017). While the growth in online ITE degrees was already occurring, 2020 saw this crash into prominence, with the COVID-19 pandemic forcing face-to-face courses online (Phillips et al., 2021). Post peak-pandemic, the interest in online learning has only strengthened, and higher education providers around the world are responding by growing and enhancing their online offerings (Wood, 2022). While digital innovation was already being embraced by online arts educators (Burke, 2021), this disruption prompted teachers to engage more prolifically with digital technologies to engage arts learners (Davis & Phillips, 2020) and caused them to ‘think more deeply about students’ relationships with technology and what this means for them as artist educators’ (Koh & Kan, 2021, p. 199). Technology-enhanced pedagogical practices have been embraced to engaging online arts learners, including ubiquitous devices and apps, the use of video software (such as iMovies) and blog and website building to assist students to record their work from different angles, make annotations on their recordings and share their work with others. Further, the use of music software programs such as Sibelius™, Garage Band™ and BandLab™ have made composing and arranging accessible in the online space. Nonetheless, such innovations require time and expertise, or are not supported by the university online platform, making them challenging for some educators to utilise (Burke, 2021).

The literature demonstrates there are advantages of online learning for PSTs, such as increased accessibility and flexible learning (Dymant et al., 2018), and advancing digital technologies now permit peer collaboration and interactive learning activities. However, a range of concerns also exist, including feelings of isolation and a perceived lack of technical and academic support (Dymant et al., 2018) alongside lower retention and completion rates (Stone et al., 2019). Further, and more specifically relevant to arts education, online learning raises challenges for the engagement in arts praxis that reflects the highly embodied ways of working in the arts.
Ideally, online arts courses should provide students with ‘authenticity in arts learning through effective, arts-focused and practice-based utilisation of the online platform’ (King, 2018, p. 13). Online contexts, however, ‘do not readily permit the interpersonal, kinesthetic and collaborative engagement with arts-specific materials and processes that are usually central to creative arts learning’ (Burke, 2020, p. 1), and as such, are generally perceived by teacher-educators as inferior to on campus arts learning. While students are making use of creative digital technologies, they may not be aware of the discrepancies between attendance and online learning in the arts, and therefore, online learning ‘cannot replace the vital visceral and embodied experience necessary’ in each of the five arts identified in the Australian curriculum (Baker et al., 2016, p. 39). Importantly, the literature in the field of online arts education is still emergent, and in particular, studies that foreground the student experience are largely absent from the extant literature, demonstrating a need to develop insight into their experiences regarding how online study has developed their readiness for teaching the arts in EC classrooms.

Collectively, research highlights the significance of quality arts learning in EC contexts, and the relationship between an educator’s own sense of confidence and competence in the arts and their ability to confidently facilitate rich and authentic arts learning for young learners. It further demonstrates that online learning in the arts is potentially more challenging in terms of preparing students with adequate engagement in praxis, although extensive insight into this is under-represented. It is at the intersection of these considerations that this research aims to enrich perceptions by understanding student perspectives of studying EC arts courses online.

METHODOLOGY AND METHODS

This study sought to document multifaceted EC student perspectives of online arts learning through an online qualitative survey. Qualitative surveys permit the potential of rich, qualitative data alongside the wider reach of traditional surveys that yield a wider range of perspectives from geographically dispersed participants (Braun et al., 2020).

Our 24-question survey (see Appendix A) first consisted of a small number of demographic and semantic differential scale questions to ascertain the types of students and their sense of confidence with the arts prior to, and following, completion of their arts course/s. This was accompanied by the open-ended portion of the survey, which consisted of 14 topic-based questions that sought reflective descriptions of personal and educational experiences with the arts, their personal creative practice and their perspectives on advantages and disadvantages of online arts learning. Participants were recruited from current and past online cohorts of EC arts education courses/programmes from 18 cohorts studying a variety of EC degrees at three Australian universities between 2018 and 2020. The courses surveyed are part of degrees in Early Childhood Education (birth to 5 years/birth to 8 years) and Early Childhood and Primary Education degrees (birth to 12 years). They form the single compulsory course for arts education and the only opportunity for students to study the arts. Ethical clearance was obtained from our respective university ethics bodies. The survey was open for 12 weeks and resulted in 51 valid responses. The number of responses was adequate for a qualitative survey but may have been impacted by the timing of the survey (distributed at the end of the semester) and the fact that the survey was conducted in late 2020 during COVID-19 restrictions. Fifteen per cent of the respondents were in the first year of their degree when they completed the survey, 40% in the second year, 37% in the third year and 8% in the fourth year. Forty per cent had previously completed an arts course on campus, and 58% had previously completed an arts course in online mode.
Data analysis

The qualitative survey resulted in a complex array of student perspectives. As researchers, we were concerned that a singular, unified and unproblematised analysis would probably deny the impact of our emic perspectives (Fetterman, 2005), as we engaged with the students’ reflections. After all, their stories and our own intersected, and our readings of their reflections were unavoidably influenced by our experiences. As teacher-researchers and arts educators, we utilised the advantages of this emic perspective to ‘capture the phenomenon’s situatedness, which is otherwise lost through generalizations’ (Tomej et al., 2022, p. 2). Rather than denying our bias as researchers and educators, we saw the analysis and re-presentation of data as an opportunity to engage in personally meaningful ‘sense-making’ through the methodological process of qualitative bricolage (Denzin & Lincoln, 2000). Bricoleurs do not attempt to simplify the complexity of the research context but use multiple methods to examine interpretations from multiple perspectives moving beyond the demands and rules of any particular methodology (Johns, 2021, p. 21). In particular, we wanted to make use of a range of narrative approaches to qualitative inquiry combining resources (Pratt et al., 2020), based upon our recognition that ‘story represents a way of knowing and thinking that is particularly suited to explicating the issues’ (Carter, as cited in Webster & Mertova, 2007, p. 31).

To honour the multiplicity of stories within our data while recognising our subjective experiences intersecting with those of the students, we analysed the data individually, approaching our analyses as an act of narrative inquiry that sought to be sensitive to ‘the subtle textures of thought and feeling, which are not readily accessible in more standard forms of research’ (Webster & Mertova, 2007, p. 7). Identifying what was significant to each of us individually pointed to potential insights and perceptions (Johns, 2021), adding depth to the voices. Drawing on Clandinin and Connelly’s (1996) ‘teacher stories–stories of teachers’, we were seeking to unravel a series of interrelated PST explanations around their learning experiences in an online Arts course, and retold these through teacher-researcher stories–stories of teacher-researchers.

Crafting our stories from the rich data gathered allowed a deeply reflexive approach through which we could acknowledge and scrutinise our role in the research. Given our parallel roles as both researchers and educators, it was vital for our research process to intentionally ‘lay bare’ our assumptions and faithfully listen to and represent our students’ voices. Our parallel narratives were thus shared side-by-side, generating a rich dialogue through which we could acknowledge and scrutinise our role in the research while recognising the emerging ‘kaleidoscope of stories, changing, flowing, crashing against one another, each one playing light and shadow off the others in an infinity of patterns’ (Ayers, 1995, p. 155). This process was inspired by Craig’s (2007) story constellation approach: ‘a flexible matrix of paired narratives that are broadened, burrowed and restored over time’ (p. 173). When we placed each narrative analysis side-by-side we saw connections, parallels of experience and understanding, unique insights that emerged from individual perspectives, and importantly, broader stories that presented new perspectives not yet considered. An advantage of this methodology was its deeply reflexive and emergent nature: we presented and re-presented our individual narratives together as a group, seeking moments when they aligned and when they ‘crashed into one another’ with contradictions or challenges to our biases and preconceptions. In storying and re-storying the data we sought to present the alignments, complexities and many voices while also drawing back to view the larger ‘story constellation’ at the intersection of these stories. As will be seen, the storytelling of student voices in connection with our own perspectives as educators helped to make explicit the ways in which our assumptions as educators were challenged, clarified or confirmed as a result of engaging in this research process. This process led to the following constellation that presents a kaleidoscope of stories through which the students’ perspectives, alongside our own, and important insights for online arts educators are revealed.
RESULTS AND ANALYSIS

In analysing the data, we as authors draw on the valuable emic perspectives as arts educators and practitioners. Melissa Cain is a musician and was an early childhood and primary music specialist for 22 years with a focus on culturally diverse musics. Katie Burke is a musician, visual artist and drama graduate who taught in early childhood, primary and secondary contexts. Eva Nislev is a visual artist and taught early childhood arts in Montessori and mainstream contexts. The authors teach in universities in urban and regional university campuses, teaching online and in attendance mode. As educators, we use a collaborative, praxis-based approach that preferences active learning strategies which we model for the PSTs through both live tutorials and recorded presentations. Our students are then given the opportunity, via personal learning tasks embedded in the weekly content, to engage in and critically reflect on a range of active arts experiences through which theory is made explicit.

Here we offer our stories. These include a prelude (our personal wonderings prior to data collection), an exposition (our presentation of the student and personal narrative data) and finally, a coda: ‘working an idea through to its structural conclusions’ (Burkhart, 2005, p. 12).

Prelude

As a group, we are creative and resourceful women. We love what we do—we love teaching the arts; we are not always sure if we love teaching it as much online! A range of research, including some of our own, confirms that these misgivings are shared (see Baker et al., 2016; Burke, 2020), and equally, that a range of practices that we apply to engage our learners in arts praxis are shared (Burke, 2021). We collectively shared how we missed the opportunities we had in face-to-face classes: kinaesthetic, collaborative engagement in a classroom, spontaneous exploration or experimenting with arts materials and processes, all while making connections to the course theory in a manner that is more readily permitted when learning together in space and time. We enjoyed the easy way interpersonal connections could be formed in person and finding ways to gently ease students into arts learning where it is enjoyable and non-judgemental. Yes, connection with students online could occur, but we did not feel as connected. The nuanced non-verbal communication is not as visible, and sometime is not visible at all. We wondered about the many students who do not attend online tutorials or participate in forum discussions. What are they thinking? What are they feeling? Are they connecting? How do we know if they understand and appreciate the arts in the same way, or are experiencing the examples we toss out into cyberspace? Have we ‘reached their hearts’ (Cain & Walden, 2019) regarding the power of the arts and what transformative arts learning looks like in classrooms? We sought to understand their experience and perspectives through this process.

These were the personal wonderings that helped us to lay bare our assumptions and potential bias, the creative and iterative processes (Pratt et al., 2020) we held as we approached the student voices. We wanted to know whether our students shared our reservations, or whether there were stories we were not aware of.

Exposition

Where do we start? How do we honour the many, many stories here—each one unique and valuable for the lessons it gives us and the insights into the perspective of online EC arts education students? The task of formulating ideas, finding relationships in data and theory and
then transforming requires initiative and imagination (Greene, 2001). This posed a daunting task as we had many questions and hopes for finding something to enrich our own practice, to help improve everyone’s learning. We acknowledged that there would be ‘pros and cons’ to whatever questions might be revealed as we read and read.

Our assumption, based upon the feelings we brought to this project, was that most students would also see online learning as inferior, but as we engaged with the data, we were surprised. What stood out first and foremost was the genuine appreciation for what the arts bring to EC education, both art for art’s sake, but also as vehicles for teaching all subject areas and engaging the diversity of learners.

As we read, we were relieved that what we assumed would be lost in the online experience was still of value and achievable. Student narratives (indicated below in italics), revealed that respondents acknowledged and appreciated that other learning areas are brought alive using arts practices (Dinham, 2020)—for other subjects it can make it far more engaging and exciting for students—and that young learners present their understanding best through expressive means—the visual, auditory, and kinaesthetic approaches provided by the arts benefit children in the early years, as they are developmentally appropriate and reflect a play-based learning approach. Also, young learners require a range of teaching and learning styles to remain engaged: using the arts to connect and integrate subject matter in a meaningful way, [allows us to incorporate] multiple ways of representing knowledge.

Both critical and creative thinking, suggests Alter (2011), are considered ‘essential for a well-rounded productive and independent thinker’ (p. 13). The data suggest that our students believe in this: [In the arts] students use creative higher order thinking and think divergently to approach problems. Indeed, when individuals are attempting to problem solve, they are thought to ‘move back and forth between creative and critical reflection in order to develop solutions or weigh the consequences of any one solution’ (Alter, 2011, p. 13). Participant responses indicated that they appreciate that even in young learners, the arts assist in developing students’ higher order cognitive skills: [The Arts are] about getting children thinking and creating a culture of creative expression and interpretation. We feel jubilant reading this, and certainly concur.

When asked if students would be more likely to participate in practical arts learning experiences online or on campus, the response was much more balanced than anticipated: just over half preferred on-campus, and almost half of the respondents preferred online learning for engaging in the arts (Figure 1).

Even more surprising were their reasons. Some students, as expected, understandably saw online learning as the sustainable and cost effective ... convenient/flexible study

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**FIGURE 1** Student preferences for learning environments when engaging in practical arts learning experiences.
arrangement. It was therefore not surprising this was a resonant theme: *Learning online affords me the opportunity to live and work remotely.* Others even preferred online learning to learning on campus: *I really enjoy working online. It gives me the freedom to be able to achieve results in a way that suits our needs and lifestyle (working, children and overall family life). It is self-paced, not having to share everything (including our happy mistakes) with our peers/teachers, unless I choose.*

However, what surprised us—heartened us—were the range of responses that affirmed the positive benefits to online arts learning beyond convenience. Engaging online in the home environment actually prompts creativity: *I learn to be more creative with our resources, it really pushes me to think what I can find around me to be included in the arts.* Some indicated that their confidence in arts learning was stronger when ‘making’ by themselves: *I did find doing the arts online allowed me to be more creative on my own.* As experienced arts educators, we are confident engaging in arts classes with our PSTs. Of course, we are, and have been, doing this a long time and creating in front of others is not confronting for us. We needed a reminder, however, that not everyone feels this way, and the protectiveness of one’s personal creative space was an intriguing aspect of this research: *If someone is not confident, they are able to practice their skills without worrying about what others think or their abilities.* Our respondents’ comments reminded us how creating in the arts requires us to share parts of ourselves, and sometimes we wish for personal contributions to remain private: *When one is alone, they can freely express their feelings through the arts. There is a benefit to have some time out to create art pieces.* And be reminded that the sting of past judgements is to be avoided: *Not having to share everything with our peers/teachers, unless I choose.* The need for solitude is indeed an attribute of creative people (Piirto, 2011), and some of our PSTs were thinking and feeling as artists: *I like to be alone. It gives me a space for solitude.*

Despite these valid reasons for online arts learning, there was also recognition that the arts are best taught in the same space. Many students recognised what is missed when learning online. Participants’ comments support Burke’s (2020) research that transferring on-campus arts learning to an online context is largely ineffective: *I would like to feel using our senses when I learn about the arts … Being on campus is more engaging because it’s hands-on, and Learning online can make collaboration difficult as it slows the process of discussion and instant feedback—important opinions, perspectives, thoughts and ideas may get lost in the delay of waiting for response.* Although Alter (2014) suggests that PSTs may not be aware of the quality of experiences they are missing out on when learning online, this research suggests that many do: *I could be missing out on hands-on experiences, exploring different materials/textures in person.* Yes, the arts do not even sound the same online: *Physical presence would be more beneficial to exploring music and singing. If physically present the sound is closest to its natural form. Online this sound may become distorted or interrupted.*

Extending from these observations there was clear recognition that some students wanted to experience arts learning with their peers in the same space—*to be physically present can assist in building a sense of community and comradery—as a whole-body experience—being in the same place helps us to feel the vibes of the activity, which makes us more engaged—and utilising all of the senses. As Roy et al. (2019) acknowledge, the visceral need to collaborate and gain inspiration from their peers was prominent: *being with others often inspires me. If you engage with others it opens up for creative insight, discussions and ideas; being with others can enhance art experiences in which they are able to view the perspectives of others visually and through rich dialogue.* Most importantly, PSTs identified the benefit of working alongside others to motivate them and to gain confidence when others may be at the same level. It is evident from these comments that our students see the arts not just as praxis, but as human practice. We were feeling more confident that they ‘get it’.
The repeated comments regarding difficulties with interaction with other students and the lack of physicality, did, however, reinforce our previously held concerns. Yet we were heartened to see how some students took these perceived limitations and turned them into opportunities to prompt creative responses. In trying to make sense of such diverse opinions, we recognised the key difference was actually more to do with the students’ attitudes when approaching their study. Details that students provided about their past arts experiences and the impact upon their confidence in the arts were revealing.

For many, their negativity towards the arts stemmed from their past, most notably, a lack of personal confidence and a feeling that *I was never good enough*. Some conflated ‘talent’ and being worthy or ‘good’ in the arts: *I was not encouraged to participate in the arts; in fact, I was often told our art wasn’t good enough [which] destroyed my confidence and love of the arts*. Other participants were not enthusiastic about their arts experiences: *I did not find arts is interesting*, and *In both primary and secondary, it was teacher-lead. Very little creativity and imagination required on our behalf*. And *I felt the Art aim was to follow instructions rather than a form of self-expression*. Another student told of having to *mirror whatever the teacher had made. So, it was either right or wrong, or the joy was sucked out by too much theory that killed our enjoyment*. Stories of limiting background experiences, correlated with a higher degree of anxiety when commencing their arts studies at the university were happily balanced by the stories of students who had experienced a much more positive arts background, which *has made me confident in undertaking the art subjects in university*.

Garbett and Tynan (2004) found students identifying as having poor confidence and competence appeared to have had negative interactions with their teachers. The link to past experiences and possible associated feelings of insecurity or perceived failure in the arts has ramifications for teacher-educators in the design of courses. We recognised that understanding *how we work* is ‘laid in our autobiographies as learners …the insights and meanings we draw from (these) deep experiences are likely to have profound and long-lasting influence’ (Brookfield, 1995, p. 198). This places a huge sense of burden on us as teacher-educators; we only have one shot at changing this perception.

These and many more stories that students brought to their online studies further provided foundations regarding our learners that we often overlook. Our students have rich backgrounds and this can often dictate the success of our online efforts. When we teach on campus, we can more readily understand students through informal interactions, permitting a more responsive pedagogy. This is harder to facilitate online. Houlden and Veletsianos (2019) provide a critique of online learning, asserting that the oft-touted claims around flexibility hold ‘an implicit assumption all online learners participate in and experience education in similar ways’ (p. 1005) and that ‘flexible designs should account for individual and environmental circumstances’ (p. 1006). We wonder—how can we effectively do this, particularly when it is evident that background experiences have significant implications for how students feel towards the arts, which research demonstrates then has implications for their sense of confidence and competence as teachers of the arts (Cain & Nislev, 2018; Garbett & Tynan, 2004).

**Coda**

Now we feel that we better understand what happens when we toss our teaching out into cyber space. What has come back to us are stories much richer than we could have hoped for, both illuminating and affirming. Online learning, while imperfect, provides greater access to a more diverse student cohorts (Dyment et al., 2018), affording for some the only possible mode of engagement. We find ourselves most interested in the stories of growth, of change. Stories not told to us previously reveal how some students actually benefit from the alternative ways of engaging in arts practice that interestingly result from the limitations of online
learning, such as the ability to be creative within time, space and material constraints. Stories of transformation become clear, where the arts were not only deeply enjoyable, but made a discernible difference in that student’s wider life. And the story is so striking and powerful: a near consensus that the arts are of incredible value. We feel some confidence and delight that the students ‘get’ how important it will be to provide their learners with equally transformative experiences. We empathise when they tell us that they can find peace and solitude creating for themselves. As true artists, they want an element of privacy in their experimenting with arts processes, leaving themselves to enjoy the product without judgement. Yet despite this need for solitude, there is the story of a need to be connected to others through the arts, to learn by building upon the ideas of their peers, by connecting visually, aurally and kinaesthetically.

All this, however, is balanced precipitously, and is dependent on the sensitive work of teacher-educators. The PSTs want to experience hands-on learning that builds their expertise and can be used in their classrooms. We must therefore continue to innovate and develop more flexible provisions that permit engagement in learning and assessment collaboratively or individually. But most of all, online educators must continue to seek ways to understand their individual cohorts to facilitate the flexibility their students desire: ‘Flexibility in this context is relational and relative because it is always in response to the environments and other people’ (Houlden & Veletsianos, 2019, p. 1013). This is the arts educator that is crucial in children's development as Knight (2013) highlights: pro-active, enthusiastic, a co-learner; a supportive critical friend in a shared investigation. Openly experimenting with teaching and learning structures in the online setting and seeking concurrent feedback may help to pave a way forward where the lecturer/student paradigm shifts to one of a Community of Practice. This transformational learning (Mezirow & Associates, 2000) opportunity will help dispel negative, previously held assumptions and encourage an openness to making new, positive and rich connections in, and with, the arts which will engage us all in informed and authentic art practices.

**DISCUSSION AND IMPLICATIONS FOR PRACTICE**

Through the process of storying the data in a manner that honoured both our lived experiences and those of our students, our story constellation has helped to reveal unique insights into the variety of student perspectives, alongside our own ‘grapplings’ as researchers with this data and the culminating ‘sense making’ to elicit useful insights for online arts educators. By presenting and re-presenting our storying of the data, a constellation of stories emerged that helped to give a multi-dimensional insight into the student experience. Figure 2 conceptualises a new constellation, the ‘teacher-researcher stories constellation’. This captures the stories that teacher-researchers and pre-service teachers travel in, through and around the early childhood arts online learning space. The permeability of the lines enables movement and capture of key stars (concepts), which adds to the greater universe of online learning in the arts. We now consider these stories and the key concepts revealed within this constellation to answer our research questions.

**How do early childhood pre-service teachers feel about online learning?**

Imperfectly effective

Online learning is a mainstay of teacher education and will be for the foreseeable future. While not perfect, especially for experiencing the arts, our online courses visibly resulted in
students attaining what we consider to be the most important ‘take aways’ for their practice as arts educators: a belief in the power of the arts; a conviction that quality arts education is the right of every child; and a strong sense of the hallmarks of quality education including creativity and self-expression. Given the ongoing prevalence in schools of seeing some learning areas privileged over the arts according to their perceived economic or functional purpose (Alter et al., 2009), such foundational values bring us hope that our learners will be ambassadors for quality arts learning.

Flexible and convenient

Students come to online courses with diverse needs and preferences, and appreciate the flexibility of studying online, enabling them to schedule study around work and family commitments (Bettinger & Loeb, 2017). However, it is vital that institutions that deliver online learning also deliver on these expectations, particularly given the visible marketing of online learning as flexible (Stone et al., 2019). In keeping with wider research (Burke, 2021), our students demonstrated a range of preferences for interpersonal engagement, with some desiring connection and interaction and others preferring to complete studies privately. The building in of greater differentiation of engaging with the learning materials and completing assessment tasks, and ways of connecting with staff and peers, is visibly desired. This will require not only flexibility on behalf of those who facilitate online arts courses, but more broadly, flexibility within institutions where rigid regulations may work against the delivery of such flexibility (Stone et al., 2019).

What do students bring to their learning?

Rich background experiences

Some respondents had previous positive experiences with the arts, leading to an openness of mind and optimistic expectations of the activities in their course. For many others,
however, this research provided an almost cathartic outlet to express anger and sadness over negative and sometimes humiliating prior experiences in educational contexts. To have students who have lost confidence in, and any love for creating, or who feel ‘not good enough’ or a ‘failure’ upon entering the course makes for a significant uphill battle for educators. The limitations of online learning to readily share such background experiences and personal thoughts and feelings, and how these impact upon each student’s approach to learning are evident, but not insurmountable. This research reveals the priority online arts educators should give to developing meaningful opportunities for students to make connections between their background experience and sense of confidence and competence in the arts. Burke et al. (2021) refer to this as a form of pedagogical care that can assist educators to respond to diverse cohorts in a ‘relational exchange’ (p. 9). Intentional space for sharing, reflecting and reframing must be built into courses to enable students to have an opportunity to reframe limiting backgrounds, as well as enabling lecturers’ personal insight to their individual cohorts.

Assumptions and attitudes

Students indicated that they began their courses with very definite assumptions, for example, that artistic talent and the ability to be creative are innate, and not crafted, or that talent and worthiness are one and the same, and that the arts products are either right or wrong (Cain and Nislev, 2018). These assumptions served to interfere with their mindset towards, and engagement with, the arts, creating doubt about the acceptability and value of divergent responses. Attitudes towards their own abilities further impacted their experience. Those with positive prior experiences demonstrated characteristics of creative people, such as an openness to experience and a tolerance for ambiguity (Piirto, 2011). Those with negative experiences expressed a lack of personal confidence and a feeling that their attempts would not be good enough. Online teacher-educators must therefore create ‘safe’ spaces for their students to share their attitudes and then scaffold confidence building for positive future arts teaching practices.

What do they need to become confident and competent teachers of the arts?

Inspiration and belonging

Our students identified that a knowledgeable, experienced, passionate and engaged arts educator/practitioner is paramount to a successful student experience. For those who come to the learning space with doubts in their own ability to successfully engage with and enjoy the arts, a teacher who promotes empathy and trust is essential. Building a sense of community is as important as the content and skills. Insight into what students bring to their learning journey highlights that online educators must seek opportunities to know their students and demonstrate responsiveness to their needs and interests.

Connection and solitude

Respondents made it clear that some drew strength, motivation, ideas and insight from engaging with their peers. They valued being able to discuss and debate within a culture of creative expression. And yet, there was equal value placed on solitude and privacy by
others emphasising a necessity for experimenting with personal expression through the arts without an accompanying sense of judgement or comparison. Teacher educators, therefore, must create meaningful ways to engage students in pedagogical discussions and collaborative activity, while acknowledging that not all students will want to participate in this manner.

Practice and experimentation

Students know that they need opportunities for hands-on learning that is meaningful and applicable, and builds expertise. They know that working with textures and sound in person (for example) makes the arts connection real. Burke's (2020, 2021) work confirms that only arts educators who assessed practical engagement felt confident that their students were engaging in praxis that prepared them for the classroom. Interestingly, many of our students acknowledged that they were aware of creative practice already at work in their lives. Seeking opportunities to connect with existing practice and drawing learning from this relevant to the classroom may provide an important 'way forward'.

CONCLUSIONS

The findings, revealed as a story constellation, present a range of ‘big picture’ insights into important considerations for the online arts educator, and more broadly, for higher education institutions. While teaching the arts online may still represent a contested space with questions as to its effectiveness (Baker et al., 2016), our research shows that we would be doing a great disservice to some learners to not offer such a provision. This requires tailored pedagogical approaches that are not only online-specific, but also flexible enough to include a diverse range of student needs and preferences. Most importantly, these experiences need to be free from teacher assumptions and preferences. We encourage other teacher-educators to consider our findings, and the students’ offerings in their practice with their online cohorts.

We acknowledge that the findings from this project represent insights from an Australian context and arise from students at three higher education institutions. We therefore do not claim that our results as generalisable. Further research in wider contexts that similarly investigates the interaction between the experiences and expectations of online arts teacher-educators and their students is highly recommended to better understand if the sentiments revealed in our study are experienced more broadly, or whether these are unique to an Australian context, or even our individual universities. Additionally, while the insights revealed by our study provide helpful ‘ways forward’ regarding useful principles that online arts educators should be mindful of when teaching EC PSTs, we acknowledge there are no simplified strategies immediately evident to enact these findings. Therefore, future research is recommended that focuses on the development and evaluation of potentially helpful strategies that might provide greater insight into data-informed teaching practices in the arts online.

DECLARATION

This manuscript has not been published and is not under consideration for publication elsewhere. There are no conflicts of interest or funding to disclose. There is no dataset available for this research. There are no acknowledgements. Human ethics clearance was obtained from both university ethics bodies.
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APPENDIX A

Survey questions

- What year of your degree are you in?
- Have you previously completed any Arts subjects on campus?
- Have you previously completed any Arts subjects online?
- Please indicate how you felt about studying the Arts before completing your current or most recent Early Childhood Arts course. Move the slider from 0 for ‘anxious’ or ‘reluctant’ to 10 for very confident.
- Please indicate how you felt about studying the Arts before completing your current or most recent Early Childhood Arts course. Move the slider from 0 for ‘anxious’ or ‘reluctant’ to 10 for very confident.
- Please indicate how you felt about studying the Arts before completing your current or most recent Early Childhood Arts course. Move the slider from 0 for ‘anxious’ or ‘reluctant’ to 10 for very confident.
- Please describe some of your experiences in the Arts during your primary and secondary school years, and any impacts these had on your learning or attitudes towards the Arts.
- What Arts experiences or activities within your Arts education studies do you feel comfortable participating in? Please explain your answer.
- What Arts experiences or activities within your Arts education studies do you not feel comfortable participating in? Please explain your answer.
- Please provide a description of your creative practice (everyone has one!) Think about examples like: decorating the table for a dinner party, gardening, creating a mandala, mindfulness, doodling, designing make-up, yoga, meditation…
- How do you think that learning through the Arts differs from other curriculum subjects (e.g., maths, HPE, HASS)?
- What do you consider to be the strengths of learning through the Arts, or using the Arts to teach other subjects?
- Do you think you need to be physically present in the same space with others to gain benefits from participating in the Arts? If so, what are those benefits? If not, why not? Please explain your answer.
- What are the advantages and disadvantages of learning about and through the Arts in online contexts?
- Would you be more likely to participate in practical Arts learning experiences online or on campus?:
- Have you experienced any engaging online Arts learning strategies activities, technologies or apps? If so, please provide examples.
- What do you need from online Arts learning to encourage you to fully participate, and to become and confident and competent teacher of the Arts in your own centre or classroom?
- Please indicate how you now feel about teaching Arts activities to your students after completing your current or most recent Early Childhood Arts course. Move the slider from 0 for ‘anxious’ or ‘reluctant’ to 10 for very confident.