"Being safe means you can feel uncomfortable": a case study of female students' participation in a higher education, online improvisation course

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In higher music education (HME), improvisation is a developing area of practice and research interest across different genres and courses. However, professional jazz and improvised performance contexts, which have strong connections with HME, have been conceptualised as 'masculine' spaces. As an important pathway towards the music profession, HME may provide a place where hegemonic discourses can be challenged. The pandemic necessitated HME's shift online and thus provided new environments for learning group improvisation. A qualitative study with four female students was undertaken to investigate their experiences and views about an online free improvisation course. Research questions considered (1) how female students understood their learning space in an online free improvisation module and (2) what possibilities were available for creative and musical actions. A focus group and individual interviews were held after the course. Two themes were identified: *the deep end* and *new materials, new space*. Students used a common metaphor of being 'in the deep end'. However, they framed this positively, either as feeling safe to experiment musically or in overcoming feelings of discomfort, perceiving an increase in self-efficacy. Findings also demonstrated that students were able to exercise agency and customize their online space by using filters, changing backgrounds, and choosing when to turn their cameras on and off. Appreciating female students' perspectives and trajectories of participation can inform teachers' priorities for creating an optimal and inclusive space for learning improvisation.

KEYWORDS

improvisation pedagogy, female students, case study, online learning, qualitative, experiences

Introduction

In this article, I will report on a study that investigated four female students' experiences of a free improvisation module at the Royal Conservatoire of Scotland. This module was online and delivered over the Zoom[1] platform. I will first outline the challenges identified in key literature for women in jazz and improvised music education; then present the findings of the

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1   Zoom is a communications and web conferencing platform that allows users to connect via video, audio, phone, and chat. This and Microsoft Teams were the main platforms used by Higher Education Institutions during the pandemic.

study, exploring the experiences of the students who were from different genre backgrounds; then discuss their experiences in relation to key literature. The purpose of this article is to investigate if and how an online free improvisation class can disrupt problematic notions of jazz and improvised music as 'masculine spaces' and propose research-based principles for an expanded and inclusive space in improvisation pedagogy.

Statement of positionality

In order to account for my place in this research, I have chosen to include a statement of positionality. I am a woman (she/her). I identify as white and middle class, living in a wealthy Northern European country, all of which have afforded me several privileges. In this article, I use the terms woman (or female), non-binary people, and man (or male) and include anyone who identifies as these, irrespective of what gender identity they were assigned at birth. Other key aspects of my position are as a researcher, teacher, and professional improviser. I investigated the experiences of women who were students in a course that I devised and delivered. These aspects have the potential to impact students' discourse; therefore, the asymmetric power relations and also my position as an expert need to be acknowledged. I will return to my positionalities in the discussion section of this article.

Professional scenes and spaces

As education in jazz and improvised music is heavily influenced by professional music scenes (Steiner and Manfredo, 2022), consideration of pertinent aspects of these follows. In this article, I discuss both jazz and improvised music, distinguishing between practices where appropriate, as they are linked but not interchangeable (Mwamba and Johansen, 2020). Women and non-binary people have not been represented in jazz and improvisation histories to adequately reflect their contributions (Nunes and Arnaut, 2020; Reardon-Smith et al., 2020; Reason, 2022; Steiner and Manfredo, 2022). In particular, research with those who have non-binary identities is scarce, partly due to *gender* being a contested term and also a relatively new area of research, despite some cultures (e.g., Native American) historically recognizing gender fluidity (Reddan et al., 2022). When considering other explanations for gender inequality, researchers (e.g., Raine, 2019; Reason, 2022) propose that male-oriented discourses within jazz and improvised music are shaped and upheld by intersections of academic writing and evaluation, specialist journalism, and overwhelmingly male gatekeepers (e.g., educators, promoters). Over time, this accumulates to form canons that exclude women and non-binary people, creating a 'myth of absence' (Reason, 2022, p. 526). An example is Bailey (1993), which gives scant mention of important women musicians (Smith, 2014; Reardon-Smith et al., 2020), for example, Maggie Nicols and Joelle Leandre. Although professional improvisers and groups explicitly align themselves with democratic values (Mwamba and Johansen, 2020), some authors (e.g., Waterman, 2008; Smith, 2014, np) argue that improvisational practices 'replicate not critique' existing patriarchal systems.

Both jazz and free improvisation performances have been described as 'masculine space(s)' (Annfelt, 2003; Reardon-Smith et al., 2020, respectively). This can be understood as a socio-musical

environment that upholds traditional masculinities enacted through different modes of communication (e.g., verbal, musical). For example, Annfelt proposed a masculine space in jazz as one which enabled 'myths' which support a hegemonic ideal of masculinity, actioned as follows: 'taking chances, mastering challenges, and risky tasks' (2003, np). In improvisation, the idea of a lone male genius is still prevalent, according to Reardon-Smith et al. (2020). There are contrasting views, however, with other conceptualizations of jazz and improvisation emphasizing the socially mediated nature of creativity and musical expressions of this (Sawyer, 2008; MacDonald and Wilson, 2020). MacDonald and Wilson (2006, p. 74) have defined jazz patriarchal hegemonies as 'embodied in those musicians whose activities and output have brought them fame and the approbation of a wide range of jazz musicians, and the power to play what they want where they want; to be interviewed and broadcast; to participate in cultural policy-making; to teach at a tertiary level, to make records and receive airplay; and particularly to hire other musicians.' Therefore, Annfelt may demonstrate a micro-or situational enaction of how masculine spaces are performed. At the same time, MacDonald and Wilson point to the professional and institutional structures where these hegemonic masculine spaces are sustained.

Since the 'great' jazz and improvisation performers over history are predominantly men, they may naturally identify with performers (Annfelt, 2003) and make choices in their education and professional lives based on an expectation of success and belonging. Women may feel alienated toward the jazz and improvisation communities because of the lack of people like themselves among the cohort of 'great' musicians (McKeage, 2002/2014). Women may respond to marginalization in different ways using converting, passing, or covering strategies (Yoshino, 2002; Teichman, 2020). For example, Pauline Oliveros, a renowned composer and improviser, purposefully created women-only groups to improvise with and develop her creative practice. She reported that this gave her 'permission to be myself that had been *covered* or more hidden in the mostly male musical environment I inhabited, where, as a woman, I had to prove myself more intensely' (Oliveros, 2004, p. 55, emphasis added). In an interview study, female participants 'covered' their identities as women by prioritizing a professional jazz identity (MacDonald and Wilson, 2006). This was demonstrated by interviewees minimizing gender discriminatory practices in jazz, claiming that these were down to individuals and not a feature of the larger jazz scene. Another rhetorical strategy used by women in this study was to emphasize that if they were good enough, then their 'expertise will out' (*ibid*, p69) regardless of gender, a view which aligned with women's talk in other studies of jazz professionals (e.g., Annfelt, 2003; Herzig, 2022). However, this strategy does not recognize potential inequalities and downplays ways in which women may have different experiences or needs (Teichman, 2020). The construct of meritocracy in jazz and improvised music has been criticized (by Nunes and Arnaut (2020) and Lewis (2020), respectively). Lewis (2020) asserts that meritocracies in contemporary music privilege existing views of expertise and doing things that have been created through a 'white supremacist capitalist patriarchy' (hooks, 1982, quoted in Lewis, 2020, np).

In jazz, solo improvising, in particular, has been identified as a problem for female students who often have less confidence in this aspect (McCord, 1996; Wehr-Flowers, 2006). Teichman (2018) proposes that two key aspects of jazz improvisation, namely creativity and technical mastery, are commonly coded as masculine

(Green, 1997). Therefore the 'features of the music itself' (Teichman, 2018, p 203) can present an additional challenge for women as they may have been given less opportunity to build positive experiences (Johansen, 2022). Even though free improvisation is mainly carried out in groups (MacDonald and Wilson, 2020), soloing within this has been described as having a 'patriarchal ethos' by an interviewee in a recent study (MacGlone and Johansen, in review).

Education and strategies for change

Jazz and improvisation education settings have also been described as a masculine space due to greater numbers of men both teaching and learning (Raine, 2019) as well as the prevalence of a 'heteronormative masculine discourse' (Johansen, 2022, p. 1). An example of this discourse is seen in how children choose instruments; Green (2002) suggests that girls and boys base their selection on 'conventional discursive constructions of femininity or masculinity in the wider world' (p. 142). In improvisation education, there is limited research concerning students' and teachers' views of if, and if so, how they understand their learning spaces as gendered (Canham et al., 2022). One exception is a study of opera improvisation in Sweden with high school students who were able to play with and subvert gender stereotypes (Wilén, 2019). Tools from theater pedagogy were combined with music improvisation to allow students to explore different gender roles. This research gap may be due to advocacy narratives often seen in improvisation literature where positive effects on students' musicianship, creativity, openness, and critical thinking are emphasized. However, research examining power relationships and the nature of hierarchies in improvisation pedagogy is underdeveloped (Johansen, 2019).

One area of growth in music education across different genres and ages is to include and facilitate student's confidence in improvising (Johansen, 2019). There are many different approaches to doing so, and tension exists in debates about how best to realize this in jazz and improvised music education (Johansen, 2019). In improvisation, confidence in one's own abilities has been linked to Bandura's (1993) concept of self-efficacy (MacGlone, 2020). People with high self-efficacy have belief in their capabilities; if they cannot achieve a challenging task, then they are resilient and try again. With low self-efficacy, however, a person will tend to avoid tasks they perceive as challenging and view them as a threat. Facilitating self-efficacy in creative musical activities can lead to teachers designing creative musical activities with an emphasis on participation and engagement rather than passing on normative values of what constitutes quality (MacGlone, 2020). A study by Davies and Harre (2001) found that once a young person has taken up a position within a discourse, such as 'drums are for boys' or 'I'm not good at improvising', they will inevitably come to experience the world and themself from that perspective. Therefore, *experience* and *identity* can be linked: Experience mediates identity, and identity is formed through a person's views of themselves as musically creative (or not) and their self-efficacy in musical contexts (Spychiger, 2017).

Various strategies have been suggested to address gender equality issues, which can be understood as logistical and/or pedagogical. An example of a logistical strategy is by creating female-only learning spaces (Björck, 2013). This can be positive but needs balancing as there is an inherent risk that women perceive that they are 'other' and

need rescuing (Björck, 2013). Another strategy is guiding instrument choice away from 'gendered' options, such as drums for boys and not allowing girls to switch, for example, from saxophone to voice (Johansen, 2021). Other suggestions include encouraging sections to socialize together to help decrease isolation for girls (Kavanaugh, 1995). Jamming and socializing have been described as important as (1) a space for learning improvisation, recontextualizing knowledge in a fun, informal way, and (2) creating social bonds (Kavanaugh, 1995). Authors such as Rowe (2022) also describe the importance of these processes but that girls are often excluded from them.

Different ways of teaching improvisation which do not focus on technical mastery and for further research to better understand the effects of changing gender ratios in instruction have been suggested (e.g., Teichman, 2018, 2020). The nature of soloing was discussed by Rowe (2022) who suggested group soloing to address female students' feelings of fear. As well as this, musical strategies, such as restricting note options, provided a framework for female students who were overwhelmed by choice (Rowe, 2022). In Oslo, Johansen (2021) investigated a successful approach to gender equality in jazz education demonstrated by an organization, Improbasen, who maintain a majority of female students. A key recommendation from this research is to include improvisation from the start of instrumental learning, rather than when a certain level of skills has been achieved. This contrasts with other approaches to learning improvisation, which suggest it is best learned after a certain level of mastery has been achieved (MacGlone, 2022). The process of *socialization* into jazz performance was different from most other examples, as these girls could confidently improvise by the time they started playing in groups (Johansen, 2021). Therefore, Johansen suggests this approach is effective as both boys and girls did not know about the socio-historical context of jazz improvisation and stereotypical gender roles within this, until after they had mastery and self-efficacy in improvisation (2021).

Moving online

Although the pandemic resulted in the rapid adoption of online learning, this area has garnered academic interest since the 90s, with some approaches building on distance learning which has a long practice of its own (Bowman, 2014). Feminist, postcolonial, and critical pedagogy theoretical lenses have provided innovative ways to develop teaching practices and online research learning (Bali, 2019). Such approaches are important to ensure online education can offer equitable and compassionate spaces (Gachago et al., 2020). While online music education theory has grown, demonstrated by the popularity of MOOCs (Massive Open Online Course), synchronous instruction in groups is less prevalent and understood (Bowman, 2014). Research concerning the delivery of practical music education online has identified challenges such as latency, sound quality, reduced potential for interaction between students and teachers, and the difficulty for teachers to apprehend student's performance and emotions holistically (Rosset et al., 2021). Group or ensemble work was reduced or canceled in many institutions as the 'physical properties' of the spaces that students were used to playing and rehearsing in could not be replicated online (Ritchie and Sharpe, 2021). Despite these challenges, other studies reported that new and innovative solutions and ways of working were created by music

teachers (Biasutti et al., 2022). In music, outwith educational contexts, the process of creating novel methods of working with latency and the limitations of sound quality on platforms such as Zoom became one way for musicians to connect socially and to continue making music in real time (MacDonald et al., 2021; Hansen et al., 2022).

In common with many teachers in Higher Music Education (HME), I found myself in a position where I had to pivot very quickly and deliver courses online in March 2020. I had the professional experience to draw on to inform educational activities through membership in the Glasgow Improvisers Orchestra (GIO). This group moved their artistic practice online in March 2020 and developed new ways of being creative online (see MacDonald et al., 2021; MacDonald and Birrell, 2021).

The research questions for this study now follow; these are purposefully broad to realize the exploratory aims of the study.

1. *How do female students conceptualize their learning processes in an online free improvisation module?*
2. *What are the possibilities for action(s) in online free improvisation education?*

Context

I designed the free improvisation module at the Royal Conservatoire of Scotland and delivered it annually from 2013 to 2021, online in 2020 and 2021. It is a 10-credit course available to students in both the School of Music (SoM) and the School of Dance, Drama, Production and Film (SoDDPF). Students in all disciplines and courses have core modules which are compulsory, and other optional modules that can be chosen to closely complement a program of study or offer a chance to try another discipline or artistic approach. There were 100 allocated student engagement hours allocated, with 19 h of staff contact with students. The remainder were self-directed studies with suggested reading, listening, and watching. In addition, targeted recommendations of sources for further study were made to individual students based on their instrument and interests.

In all years of teaching the module, both schools were represented; however, students were mostly from the SoM. Within the SoM, all genres (i.e., jazz, traditional, classical) and courses (performance, music education) available to study were represented every year. This module could be taken by students from both undergraduate and master's courses. The module descriptor states that it is open to any arts practitioner and that while students should be interested in musical creativity, genre-specific aptitude is not required. The module aims were for students to gain confidence in improvising, experience in different improvisation strategies, and devise their own pieces for themselves and their classmates. Assessment (marked as pass or fail) was 50% observation of working practice and 50% evaluation of students' pieces.

Methods

In March 2021, I delivered the synchronous content of the module online. This was 19 h over 5 days, usually in 2-h blocks with a 10-min break. In the second session of day 1, guest lecturer 1[2] introduced Zoom's visual features, such as changing backgrounds and filters and using video clips. In the second session of day 2, guest lecturer 2[3] gave a workshop focusing on movement as a generative improvisation process. Other activities in the module included playing in small groups, experimenting with the effectiveness of conduction, and using visual cues and environmental sounds as starting points. The final 2 days were reserved for playing through the students' own ideas after short group warm-ups.

Conducting research with participants who are also the researcher's students holds an ethical dilemma (Johansen and Nielsen, 2019). The students and the researcher hold dual roles, which are inherently unequal (both as teacher/student and researcher/interviewee). Students may restrict their talk or actions toward teachers who are in a position to exert some degree of power, such as course assessment. To address this, data gathering was held after the module took place. Before the module commenced, ethical approval was gained from the Royal Conservatoire of Scotland ethics committee. Students were emailed in advance to let them know I was planning to use this module as a case study towards a postgraduate qualification. An information sheet was sent to students before the module began.

As student numbers for the module were capped at 14 and only female students who participated in the module were eligible, a case study (Stake, 1995) with purposive sampling was the most appropriate approach. Features of Stake's (1995) methodology emphasize viewing the case holistically (by demonstrating mindfulness of the setting), empirically (basing assertions on observations and rigorous analysis), being interpretive (combining researcher's expertise and an awareness of researcher–participant interaction), and being emphatic (presenting vicarious experiences of the participants) (Yazan, 2015). Triangulation can be achieved by combining more than one method for data gathering (Stake, 1995). An initial focus group (following methods from Willig (2021)) was chosen to investigate participants' overall experience of the module, how they responded to improvisation activities and prompts, and what they could imagine (or not) using in future music-making. Follow-up one-to-one semi-structured interviews were held to explore topics in more depth with each participant following protocol from Willig (2021).

In total, 14 students (6f 8 m) registered for the module; all six female students were emailed before the course commenced, inviting them to participate, with four giving informed consent. After the module was complete, these students participated in the focus group, and individual interviews held online. Table 1 gives pertinent information about the students.

The automatic transcription function in Zoom was used to initially transcribe interviews and focus groups; this required further checking and data cleaning. Participants were anonymized by replacing names with pseudonyms. Using the software program (NVivo QSR, 2016), transcripts were analyzed with thematic analysis in accordance with guidelines from Braun and Clarke (2006, 2021). This process begins with identifying codes and progresses to subthemes, then themes (Braun and Clarke, 2014). Codes capture a single idea (e.g., in this data

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set, *getting stuck*), and subthemes (created from codes) capture a particular aspect of a theme (e.g., *discomfort*). Themes must encapsulate an important pattern in the data (Braun and Clarke, 2006).

I identified two themes–*the deep end* and *new materials, new space.*

Findings

The deep end

This theme gathers students' descriptions of feeling uncomfortable or even overwhelmed at the beginning of the course and the ways in which they negotiated this. Despite perceiving a lack of control, they all were able to 'rescue' themselves and find a way to a mindset where they felt they had more confidence in improvising. Each student articulated different challenges that caused them to feel discomfort; for example, Sue described feeling 'challenged' by the visual aspect of being online, saying 'I usually play with my eyes shut, but I felt like I should look into the screen, em, it really makes me feel…out of sorts'.

Students came to the module with different experiences of improvisation, with Tess articulating that she was not sure what to expect. This contributed to her feeling like she was 'in the deep end':

> And I came in, I think not really knowing exactly what free improv was, I think I thought it was going to be a class on kind of how to improvise. And, and so, when we were thrown in the deep end and I actually kind of surprised myself! before I would have said i'm not very good at it I think. And it wasn't really being taught how to improvise just like finding out what it is I guess. I don't think i've ever played so quietly as I did on the first day and I just you know I felt very self-conscious, but I feel much more comfortable now.

Tess' version of a 'deep end' appears to be her uncertainty about definitions of free improvisation and what her participation in this should be. She could have expected free improvisation to have a pedagogy similar to jazz improvisation approaches where riffs and chord changes are learned, internalized, and then manipulated by the musician (Johansen, 2019). This could also point to the lack of exposure to improvisation in her undergraduate course, whose focus was classical music. In addition, she may have had no outside references to draw on (e.g., recordings or live experiences of free improvisation). Another interesting point for reflection is her depiction of teaching: 'it wasn't really being taught how to improvise, just like finding out what it is'. This construction potentially points to the importance of agency and personal discovery for her. However,

TABLE 1 Participant information.

Student	Course	Experience improvising
Sue	Bachelor of Music	Some jazz improvisation
Orla	Master of Education (Learning and Teaching in the Performing Arts)	Some jazz improvisation
Tess	Bachelor of Music	Very little experience
Cally	Bachelor of Arts (Musical Theatre)	Drama improvisation

this might not have been a comfortable experience as she uses the metaphor of being '*thrown in* the deep end' (emphasis added). Tess' depiction of her growth in confidence was significant to her, perhaps relating to her sense of 'surprise' when she realized her existing skills and creativity were enough for her to participate in the module.

Orla articulated a different starting point, describing how she felt about improvising within jazz before she attended the module: 'I have been singing jazz, trying to improvise and then I actually ended up getting stuck in, in that world lately, like stuck in that world. I got stuck because I felt like I did not really have enough to say'. She reported that her first 2 days on the free improvisation module felt 'crazy' and that she had 'too many choices, sometimes I was treading water'. She attributed this to worries over 'how it [her voice] is going to sound'. This perhaps links to the difficulty she articulated in expressing her own personal 'voice' in jazz improvisation and consequently facing negative evaluation in free improvisation. However, this aspect changed for her through the module:

> I did find that the more I did it, the less I cared about how it sounds and more i'm interested in, in the personalities and … you know the sounds people make. Not because they are beautiful or not beautiful but because of like what kind of character is there behind that sound.

This demonstrates a shift in focus from judging the aesthetic, technical, or musical qualities of herself and her peers' contributions to a widened understanding of what sounds could represent. This has implications not only for Orla's musical choices but also for what could consequently be discussed and developed within the group.

Similarly, Cally felt difficulties at the start of the module but was able to create a strategy for shifting her mindset:

> I would definitely say that I've seen an arc, like almost like a rock-star story! When did the first session I just felt really uncomfortable, I didn't think I could do it. In my head, I said "I need to do this" so then I sort of changed it to "okay let's play a game". So I really enjoyed that and it gave me more confidence, it just sort of broke a wall.

Cally describes her journey with a heroic narrative. At the beginning of her 'rock star story', she felt unable to join in. However, through a process that may align with 'creative problematisation' by Siljamäki and Kanellopoulos (2020, p. 215), she was able to change her approach in class and, to extend her metaphor, be the rock star, and perform successfully. Her idea to make her participation more playful potentially provided different musical options. Furthermore, gamifying her strategies allowed her to shift focus from perceptions of what she was meant to do or sound like, to instead think about what others did and how she could fit with them. She later discussed 'games' as being derived from drama exercises, giving the example of 'mirroring' someone else 'to see where it would go'. She then applied this plan and found it successful. Like Orla, she created her own conceptual tools (mental strategies when improvising, (see MacGlone, 2019; MacGlone and Johansen, in review) for improvising, which provided the necessary shift for her to participate and enjoy the class. She later attributed this ability to find solutions for herself to coming from experience in other educational settings:

> I'm very used to being thrown into the deep end of things and being like okay well drown, swim, survive, and then figure it out. So um, I was like ok, I mean i'm uncomfortable but let's see where being uncomfortable takes me. It's funny but being safe means you can feel uncomfortable.

Here, she positions the feeling of discomfort as a challenge but one that has the potential to lead to other possible creative outcomes. Cally's musical theater background had given her tools in drama-based improvisation exercises and strategies, which she was able to transfer to a musical context. She concluded with a seemingly paradoxical statement. From a teacher's perspective, it could be supposed that a 'safe space' for students means that they feel comfortable, and this allows them to experiment and gain confidence. However, for Cally, safety meant that she was able to explore feelings of discomfort within a secure environment, that the reason for difficult feelings may be interesting and possibly lead to more creative opportunities.

For others, being at the deep end was portrayed as dealing with multiple and simultaneous cognitive processes.

Sue described her mental processes during improvisation:

> It's so hard to think of everything at the same time. I'm creating music in my head and then playing it. But I don't always get to play it cause the moment passes. Like, and listening all the time, thinking what is going to go with the bassoon or guitar and should I be yellow or pink? It feels like I'm in the deep end most times. But the more we do the more I get used to it I think.

She describes complex navigation around music and visuals and makes a compositional judgment about the best time to play. This can present technical challenges, as the player has to find ways to realize the sound from their head on their instrument. This process is also critical and aesthetic in that they have to make split-second decisions about if it fits—or if the 'moment' has passed. This shows a social consideration of the context and other musicians in it. For Sue, the type of cognitive processes could be the source of her discomfort, the sheer number of tasks, or deciding for herself what the priorities of the moment are and how to respond.

In common with the others, she describes a change in mindset for herself but also for the group,

> Yeah, it did change something for me because before, at the start, that I was kind of experimenting with the most kind of contemporary things I could do, and like as crazy, as I could because I felt that that kind of matched the sounds of everybody, and I think as the week went on, we managed to just to get into be a bit more calm and very nice and it doesn't always have to be, just feel so random, I think.

For all of the students, even though their version of the 'deep end' is personally constructed, there is a common narrative in the importance of getting through this in their own way. This indicates the importance of agency and problem-solving, as seen through students creating their own strategies.

The deep end was a commonly used metaphor, but each student described their own version of how that manifested for them. There

were some similarities in their descriptions; for example, Tess and Cally had anxiety about their perceptions of what would be musically acceptable in this context. Orla and Sue articulated that the choice of options was overwhelming at first.

New materials, new space

This theme brings together descriptions of the musical and creative materials students used in their improvisations and the choices that were mediated by the online environment. These were in different modes, for example, musical (e.g., Cally playing with birdsong she heard from her room); structural (e.g., Sue suggesting a framework for improvisation based on a well-known jazz standard); personal (Tess creating a piece with the purpose of alleviating nervousness about improvisation); or by using features of the Zoom platform (Orla using the emoticons on the chat as a starting point for the group's improvisation).

In the academic year 20/21 at Royal Conservatoire of Scotland, a substantial amount (over 50%) of courses were still online. Sue described remote performance classes as 'soul-crushing' as they were a 'pale imitation' of an in-person class. Orla described a module where they had to present a workshop for nursery children remotely as 'totally disheartening, the screen froze, and we were left wondering what to do'. By contrast, the free improvisation module was described as distinct from these examples: 'it's not a substitute, its different' (Cally). Sue suggested that in the future 'you could definitely have two improvisation courses, one face-to-face, one online'.

Although the students were new to free improvisation, they understood that online there were different ways to contribute to improvisation and that it was part of artistic practice. Part of this could be attributed to my membership in GIO which had moved online during the pandemic (see MacDonald et al., 2021). In addition, including guests who were immersed in professional practices of making and sharing art online may have legitimized the practice of online improvising for the students. However, Tess had mixed feelings about the long-term benefits or transferrable learning from the module.

> I was also thinking about the visual experimentation stuff on Zoom. And I really enjoyed doing it actually and I found it fun and different, but I was thinking like in my head, hopefully, I'll never have to go on Zoom ever again! And I was kind of thinking like 'Am I gonna have to do this ever, like is this helping me? Its all new, new materials, new space.'

Tess appreciated having more and different options for mediating her creative process than usual. However, she questions the intrinsic value of the visual possibilities. This could be part of her process of figuring out if it is relevant to a future artistic practice—'is this helping me? Some research demonstrates that outwith instrumental lessons, conservatoire students constantly evaluate if what they learn will adequately prepare them for a career as a professional musician (Creech et al., 2008).

Sue talked positively about aspects of learning online in the module, which had coalesced over the module. First, students could turn cameras off when they felt it necessary to have a break from

looking at the screen without asking for permission. Another was to allow people to sit pieces out with the understanding that they are active and supportive listeners and contribute to group debriefs afterward. The following extract describes Sue's experience of turning her camera and mic off for another purpose in a purely vocal improvisation:

> I just, I think I like singing, but I would find that really embarrassing to do it on camera with people I don't really know and, especially, making weird sounds, I was just really scared. But it was a positive, I switched everything off and and I was singing along and and it was nice to be able to listen to people enjoying it too as well as me.

This quote describes how Sue was able to rig her environment to participate in a way that was comfortable for her. Having the camera and mic turned off allowed her to create 'weird sounds' freely, not seen or heard by the others in the group. A lack of confidence perhaps led to her actions, but having the space to experiment without being heard allowed her to participate in a way that was comfortable for her. Linking with the previous theme where she described the amount of choice as overwhelming, perhaps experimenting with an unfamiliar instrument while being heard by others was too burdensome for Sue. In this instance, she was able to reduce the cognitive demands for herself and enjoy the process of playing, being creative, and appreciating other's enjoyment. In this way, Sue took the opportunity to create the ways of taking part in a way that was personalized to her, which would not be possible in face-to-face settings.

For Cally, participation online gave certain affordances which she saw as valuable and not possible face to face:

> If I had been doing this module in person, that is, a lot of other things that might be in my head about the way i'm sitting, or like what people judge, would people judge my posture? like there were a lot of things like that that I mean. I feel like It takes up a lot of energy, but you don't realize it in your head and that's one of the big reasons that you're tired when you get home. So, and to add to that, I felt like breaks were different that I came back with a lot of energy. And that's because I was cool because I got to really switch off and like be cool and then come back. I feel like, if I had been outside I would have taken a break, but I would still be in a public space, sort of having to be public, yeah so um for me personally, I think there are some things that I enjoyed about it being an online, zoom class.

Cally's presents her feelings and thoughts about her body being judged in face-to-face situations as being persistent and exhausting. Being in her home during the module gave her a way to have a space to recuperate without fear of judgment. For Cally, it was energizing not to speak with others from the class during the breaks. Participation in an online module offered her access to a private space where she did not have to 'act' in public. In her breaks, she did not have to negotiate social interactions where she felt she was not able to fully 'switch off'.

As previously mentioned, students had to make a piece for the rest of the group as part of their assessment. This was an opportunity for them to explore areas of interest; for example, some made videos, and others typed words into the chat box function to provide a starting point for improvising. Tess described her reasons for pursuing the specific creative actions her piece afforded,

> I think a lot of the time with improvisation, It can be quite embarrassing and you can feel nervous. A lot of people won't improvise at all because it's just something they can't do….I was kind of wondering why that is, is it because we link ourselves to our music too much, or we judge ourselves because we relate it to it? Or is it because you have to show other people, like would you feel embarrassed to show your picture on the screen. And, but I was just thinking if we keep that in mind, you can make a doodle [by drawing]. You can either try and play what your doodle looks like or you can think about how you felt doodling like were you planning it. I just want it to be about kind of finding confidence not really caring. It's not a big listening exercise, I don't really expect it sound amazing and I don't mind if everyone plays at once. Just play your doodle and be, be carefree I think.

Tess' strategy was specifically targeted at alleviating the feeling of low confidence, which she describes as partly due to stress from students showing others their *self* through music and improvisation. She wondered if improvisers were too closely linked to their musical expressions and that through judging musical, aestheic, or technical aspects, the person's character is also judged (see also the previous theme for Orla's description of getting to know the 'character behind the music'). This creates a pressured activity which she attempts to redress in her idea for the group to 'doodle…not really caring' about the quality of the work. Her strong desire for the group to be free from stressors they identified in improvisation and education, for example, being 'judged' by others with regards to quality (Tess); innovation (Orla), or how your body is perceived (Cally) provided a powerful motivation for the piece. This also aligns with views about improvisation having the potential to provide an alternative space 'free from' restrictions of other musical practices (MacDonald and Wilson, 2020; Mwamba and Johansen, 2020).

New materials, new space presented the ways in which students could participate and be creative in the module. Students could be creative with music, structures, visuals, strategies, and how they presented themselves by switching cameras and mics off and using the features of Zoom (changing backgrounds and using filters). The following section will discuss the study's findings.

Discussion

This study explored the ways in which female students conceptualized their learning processes in an online free improvisation module. Although students reported a common journey from discomfort to confidence, this was experienced and framed in different ways. Many previous studies identified female students' lack of confidence (e.g., McCord, 1996; Wehr-Flowers, 2006; Teichman, 2018); this article offers another perspective in that students created their own strategies for addressing their discomfort and gaining confidence through the module. For instance, Cally was able to repurpose knowledge from drama lessons and use 'mirroring' to guide her musical responses. Orla refocused her attention from the musical

and technical aspects of her fellow students' playing to listening for the 'character behind' the music. Tess described 'finding out' what improvisation was rather than 'being taught', perhaps demonstrating the importance of agency in her learning processes. This could also indicate, however, that she expected more explicit instructions or a firm definition of improvisation from her teacher. Sue differed slightly; she described 'getting used' to the many different aspects of improvisation in she had to attend to. Rather than seeking a way of shifting her mindset like the others, she tried to play the most 'crazy… contemporary things I could do' as she saw this as matching what others on the module were playing. This could be to match the 'metaphorical display of mind' she perceived in the group's music (Green, 2010, p142 quoted in Teichman, 2020). This has been suggested as a masculine-coded 'musical feature' in improvisation, which can be understood as creating and playing technically demanding material (Teichman, 2020). However, she went on to say that the group as a whole managed to find some consensus in musical material later in the week where it felt 'a bit more calm'. Sue mentioned the influence the group had on her playing choices; this process is consistent with research concerning improvisation as socially mediated (Sawyer, 2008; MacDonald and Wilson, 2020).

The metaphors used to describe the learning process were often dramatic (e.g., through language such as 'sink', 'the deep end', and 'survive'). This depicts the students' sense of struggle on the way to feeling comfortable. This could also indicate that students perceived this as a high-stakes task for themselves as they could sink (i.e., by playing something that they perceive is 'wrong'). There is also the inherent nature of improvisation being unknown (MacDonald and Wilson, 2020). When thrown in the deep end, the bottom of the pool could be closer than one thinks; it may be that you stretch out your toe and touch the floor straight away. These students' deep-end experiences were resolved through the realization that they could repurpose the knowledge and skills they already had. Cally provided a heroic metaphor in her description of her 'rock star' arc. This may map onto Annfelt's (2003) proposal that masculine spaces are enacted through 'myths' of taking challenges and overcoming risks. This does not presume that Cally experienced the module as a masculine space—similarly, she described her strategies for coping with uncertainty as being transferred from past learning: 'I'm used to feeling discomfort'. This suggests that in contrast to the literature, which emphasizes the importance of *musical* self-efficacy for improvisation (e.g., Wehr, 2016), Cally had belief in her own self-efficacy to *cope with discomfort* in new situations. Her identity as one who can deal with uncertainty seems informed by her previous educational experiences (Spychiger, 2017).

The construct of the students being 'in the deep end' resonates with Lucy Green's work which developed a new classroom music pedagogy based on processes in informal music learning (Green, 2006). Some high school students described distinctly positive aspects of having more autonomy in their learning. However, others expressed the desire for more help from their teacher at the beginning of the process (Green, 2006). Similarly, the students in this study may have preferred or been expecting me to occupy a teacher role that provided more scaffolding in the early stages of the module. Learning trajectories in improvisation that portray a struggle were also found in a recent study by Siljamäki (2021). Participants in an improvised choir also expressed that they found aspects of improvisation difficult

and that they needed to traverse through a 'zone of discomfort'. Although Siljamäkki's study had interviews with both men and women, the quotes for this theme were all from women. This suggests that the narrative of overcoming the feelings of uncertainty was a common feature in both Siljamakki's work and the students in this study. This points to an area for future research; as outlined in the introduction, current improvisation literature's focus is often on positive outcomes such as developing musical, collaborative, critical, creative, or personal skills (Johansen, 2019). As improvisation is potentially still marginalized in HME, reporting positive outcomes through research is a powerful way of advocating for its inclusion (Johansen, 2019). While this is important, acknowledging the diversity of experiences and where female students may be at a disadvantage (e.g., acknowledging and addressing the 'confidence gap' identified in previous research) is arguably equally imperative to benefit the quality of future research and the experiences of future students.

The other key focus of this article explored the possibilities for action(s) in online free improvisation education. The students' creative choices were across different modes of participation, for example, switching cameras and mics off, altering their appearance using different filters and backgrounds, and playing with sound sources separate from musicians on the Zoom call (Tess playing with the birds she could hear outside her flat). These findings align with experimentation found in online artistic practices created due to the pandemic (MacDonald et al., 2021). The previous literature indicates that if students have flexibility in learning outcomes, they can create what they learn but also the learning processes themselves (Johansen, 2019). Therefore, different strategies for learning can exist in the same group doing the same activity (Johansen, 2013). This can be influenced by background, interests, and the affordances they are given, also whether they are supported to make their own choices and feel a sense of creative agency (MacGlone, 2022).

Musical issues identified by previous authors in online music education as latency and sound quality (Rosset et al., 2021) were not described as disruptive in this study (although the students may have experienced these aspects). The focus of the tasks perhaps sidestepped this, as the emphasis was on experimentation and working with the environment and resources students had at hand. Online, the students had the opportunity to 'furnish' their own space (DeNora, 2013), giving many potential means for creative expression. For example, the ways in which students combined colored backgrounds and adjusted filters meant that their images could be anonymized. The Zoom platform randomizes which sounds are foregrounded (MacDonald et al., 2021), thus leading to an experience distinct from face-to-face environments where some instruments are naturally louder than others. One student described that exploring her voice and building confidence was possible by switching her camera and mic off and joining in with the sounds she could hear. The way this student creatively used the online platform may also have functioned as alleviating fears about being 'on the spot' that some authors have identified as a specific issue for women (McKeage, 2004; Wehr-Flowers, 2006). Online it appeared that the obscuring of identity and sound that can happen gave the students the opportunity for experimentation without 'losing face'. This is particularly pertinent in light of previous research that demonstrated the disproportionate numbers of male performers

and teachers (Raine, 2019) and how women 'covered' their female identities (Oliveros, 2004; MacDonald and Wilson, 2006; Teichman, 2020).

In a study about how improvisers developed their online practice during the lockdown, musicians created new creative practices in online improvisation where the 'body gains *ontological flexibility*; it gains hybridity, contingency, possibility, and indeed new visually displayed freedoms' (MacDonald et al., 2021, p. 13, emphasis added). The present study is in a different context, educational rather than professional, but it can be argued that students experienced and made new ways of being creative and participating. Being at a music conservatoire can be a particularly turbulent stage for students' identity, confidence, and wellbeing, in addition to the demands of developing musical and technical skills (Perkins et al., 2017). Considering improvisation as having 'ontological flexibility' (aligning with Tess' comment about 'finding out what it is') perhaps explains how simultaneous personalized experiences somehow weave together across modes of participation. This is a potentially unique feature of free improvisation that may particularly benefit women; however, the ways in which it is assessed in HME are important to consider (MacDonald and Wilson, 2020). Learning outcomes have a significant impact on the teachers' pedagogical choices and resulting possibilities for students' creative actions. There is great potential for inclusivity if students are able to choose how to develop, both musically and conceptually, and which values to align with. For example, Lewis proposes a 'mental envelope of creolization', that is, a mindset that is aware of gender, race, traditions, and the ways in which they intersect as key for fostering inclusivity in contemporary music (2020 np).

Returning to positionality

There is potential for teachers to improve their practice in teaching creative tasks, but the required cycle of planning, acting, observing, and reflecting is time-consuming and requires dedication (Odena and Welch, 2012). This study was originally part of a postgraduate qualification which provided a time-bound framework for this process. The same amount of time may not be practical for other teachers, no matter how interesting and important this process is.

Considering my position as a teacher, even with mitigations such as holding interviews after the course was complete, it is important to note that students may still present a tailored version of events to fit what they think I would like to hear (Johansen and Nielsen, 2019). Writing up findings from the study was challenging at times; for example, the metaphor of the 'deep end' was initially disconcerting as I always seek to provide a safe space. I enact this through listening to students and taking on suggestions for timings of breaks, choice of activities, and checking in on how they feel (particularly early in the module). The Royal Conservatoire of Scotland also has a 'safe space statement', which I referred to[4]. This finding suggests that my version of a safe space was not necessarily the same as the students'; a key part

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4 https://www.rcs.ac.uk/why-rcs/learn-from-the-best/supporting-you/#:~:text=Everyone%20working%20and%20learning%20together,utmost%20respect%20for%20each%20other

of safety for them was being able to work through feelings of discomfort, demonstrated in Cally's quote, 'being safe means I can feel uncomfortable'. This, in itself, requires the teacher to give space in allowing and exploring different ideas and making time to accommodate this process. Further work could usefully develop conceptualizations of safe spaces in jazz and improvisation education from the students' perspective, using intersectional theoretical lenses, for example, as seen in Bali (2019), and compassionate learning design (Gachago et al., 2020).

A crucial aspect for me in delivering the module online was the expanded range and variation in 'aesthetic material' (DeNora, 2000, quoted in Siljamäki, 2021), p. 236, that I could offer and accept from students. In my study, I understand this to be the musical, visual, verbal, and conceptual resources that students drew from and used to contribute to an improvisation. These materials were personalized by students to suit their needs and interests. Improvisation has been identified as problematic for female students as they can have lower self-efficacy in this aspect (Wehr, 2016; Teichman, 2018). I propose that this 'confidence gap' can be addressed by providing an environment rich in choices of aesthetic material and for teachers to offer a range of affordances (possibilities for action). In this way, improvisation can provide space for 'creative problematization' (Siljamäki and Kanellopoulos, 2020). This can allow female students to build positive experiences and the chance to reframe their beliefs (c.f. DeNora, 2013 construct of 'refurnishing').

Finally, the role that assessment in improvisation can play, for example, as supporting or challenging hegemonic practices, is a key point and one that could benefit from more research. The flexibility and agency possible for the students in this study were important, demonstrated in their creation of personalized strategies. Grading improvisation can affect this aspect negatively as students may focus more on achieving a good mark measured against the teacher and institution's assessment criteria more than developing their own creative expression. I was able to make my course pass/fail, but this may not be an option for others. Through my process of reflecting on my practice over nine annual iterations of the module, I perceived students as happier to express and explore their own ideas after the change had been made from grading to pass/fail.

Implications

As improvisation pedagogy is commonly described as "situated" (Johansen, 2019), creative possibilities available online may not transfer convincingly into face-to-face settings. However, the findings from the students' experiences suggest key points to consider. Students bring genre-associated and gendered experiences or expectations of improvisation with them. This can cause discomfort and need a period of adjustment. The anonymization that happened to some extent online meant that students were able to experiment freely, highlighting the importance of low-stakes tasks for gaining confidence. Accommodating the need for students to have agency to create their own learning pathways and agency in musical choices are important aspects to emphasize in face-to-face settings. Finally, what can be seen are the affordances of improvisation online: flexibility, options for personalization, multiple ways in which creativity can be mediated, and multimodal expression seem ideally placed to address some of the

complex areas there are to negotiate in improvisation education with women students. Transferring these principles to face-to-face settings demands a trans-disciplinary and expanded view of improvisation and greater flexibility in assessment systems.

Data availability statement

The datasets presented in this article are not readily available because full datasets are only available to the author. Requests to access the datasets should be directed to UM, una.macglone@ ed.ac.uk.

Ethics statement

The studies involving human participants were reviewed and approved by Royal Conservatoire of Scotland Ethics Committee. The participants provided their written informed consent to participate in this study.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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