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# Jazz and improvising: experiences, attitudes and beliefs of United Kingdom (UK) secondary school music teachers: listening for gender

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It is well documented that jazz has a male hegemonic narrative. Researchers have also found gender injustices in performance and in education. Recent research has shown that there have been pioneering female jazz musicians around through many eras, however women have traditionally been under-represented in historical jazz narratives and they remain a minority in the field of jazz. This contrasts sharply with the fact that music teaching in schools in the United Kingdom (UK) is a profession occupied predominantly by women. Jazz and improvising occupy a marginal place in the curricula in schools across all four nations in the United Kingdom (UK). Studies show that in the secondary school music curriculum there is generally a focus on technical development, musical skill building and reproduction, rather than creative activities such as improvising and composing. There are resultant tensions between the performativity and creativity agendas found in schools and issues of teacher agency, freedom and control are prominent. This mixed methods study of secondary school music teachers (classroom and instrumental) investigates their experiences, attitudes and beliefs in relation to jazz and improvising in their practice. The data show that gender is a significant factor when considering amount and type of activity, as well as confidence and anxiety in jazz and improvising. Barriers exist for women and girls in schools that need to be addressed if changes in gender participation in jazz and improvising are to happen. The study provides implications for future educational practice in order that gender inequities might be addressed.

## KEYWORDS

jazz education, improvisation, gender, women in jazz, secondary school, music education, jazz

## Introduction

Jazz and improvising are well placed to fulfil a children's human rights-based approach in education, guided by the principles and furthering the realisation of the rights of the child as outlined in the United Nations Convention on the Rights of the Child ([UN General Assembly, 1989](https://www.un.org/en/conventions/child-rights/)). A child should have the right to a respectful education, which ensures that they are healthy and happy, safe, and actively involved in school life and the wider world. This is promoting inclusive education through child rights education, allowing free participation in cultural life and the arts.

'If it wasn't for the jazz band we wouldn't know anything about music'... 'We just learn stuff to pass the exam. But it's the same in other subjects too, not just music.' (Alex aged 16, conversation with author).

'Imagine if there was no fear of failure' (Sam aged 14, conversation with author).

These excerpts distinctly illustrate a view of music education in schools, where exam pressures and accountability go hand in hand with anxiety, and the measurement of progress is all encompassing. Tensions exist between the performativity and creativity agendas, as well as teacher agency, freedom and control (Burnard and White, 2008; Priestley and Minty, 2013). Alex (quoted above) went on to discuss that a different ethos existed in jazz band—one of play and exploration, with experimentation and risk-taking being foregrounded, along with what they valued as real-world experiences of being and becoming a musician.

The secondary school music curricula in all four nations in the UK (Scotland, England, Wales, Northern Ireland) includes the study of a broad range of styles, genres and traditions across popular, classical, jazz and world musical styles (Finney and Philpott, 2010). It is a statutory part of the curriculum for the first two or three years and work is focused on three broad areas of music study—performing, composing and listening. The study of jazz and improvising in schools tends to be minimal (Higgins and Mantie, 2013; Anderson, 2022). All UK nations have similar examination structures, with a large emphasis on solo musical performance. Specialist music teachers are employed, hereafter referred to as classroom teachers (CT). Many young people also have access to instrumental tuition provided by instrumental teachers (IT) working in schools and some also have external tuition.

There will be some degree of performing activities in classes, and additional ensemble work may take place on a voluntary basis as part of extra-curricular activities in some schools. This may include a jazz or groove-based ensemble of some nature, but this is not at all commonplace in schools. Knowles (2011) in his review of jazz education in Scotland found that twice as much jazz and improvising was taking place in extra-curricular music, as opposed to during class time.

Music teaching in class in schools in the UK is a profession occupied predominantly by women (Department for Education, 2020; Scottish Government, 2021). There are no comparable data for the instrumental sector. This contrasts with the jazz scene at large, where women are underrepresented (Raine, 2020). Bain (2019) discusses participation in the United Kingdom music industry by women and barriers to participation at various stages of education for those wishing to sustain a career in the music industry, showing that only 10.87% of jazz artist rosters were female in 2018. Whilst there are multiple layers to gender-based discrimination (Boornazian, 2022) more must be done to encourage other than males to participate in jazz. De Bruin (2022) calls for educators to challenge and deconstruct sexist narratives which exist within jazz.

This paper draws on survey data collected as part of a larger project investigating secondary school teachers' experiences, attitudes and beliefs in relation to jazz and improvising in UK secondary schools as they go about their everyday practice with ordinary children (Larsson and Georgii-Hemming, 2019). The study explores

the participants' perceived barriers to access as well as gender specific issues and discusses potential future steps to combat that perceived fear of failure, foster inclusive practice and address gender inequities. It is hoped that this paper will provide pedagogic as well as relational knowledge and awareness of the attributes that music teachers need to utilise in practice to support and enhance the development of jazz and improvising in education and thus potentially improve the gender gap in jazz and improvising. Genre in music education can be complex, however it is suggested that referring to *jazz in education* rather than *jazz education* is useful, putting a focus on generative learning processes and social context instead of singular stylistic definitions (Jazz in Education UK, n.d.)

Most research available at secondary school level has been conducted into teaching jazz through the North American band programme, which is very different to the system we have here in the UK. Existing jazz and improvising in education research is very limited at secondary school level and even more so in the UK also from the perception of the teacher. There is therefore a gap in the literature exploring the place of jazz and improvising in the secondary school, particularly from the perspective of the classroom teacher, as well as a significant gap in any literature from the UK (Larsson and Georgii-Hemming, 2019).

This paper uses a mixed methods convergent design (Creswell, 2022). Quantitative data will be used to provide a big picture overview and qualitative data will be used to provide further depth, context and personal story to the study. The musician-educator-researcher provides an insider perspective, being a white British, female identifying, former secondary school classroom teacher, who still works as a jazz educator in community and Higher Education settings. Her main instrument is trumpet, an instrument traditionally associated as being masculine (Abeles, 2009). The paper begins with introducing representation and tokenism and then discusses the climate for learning, curriculum making and then pedagogical approaches.

## Representation and tokenism

Jazz, as well as popular music has traditionally been male dominated (Mckeage, 2004; Caudwell, 2010; Dobson, 2010; Jovicevic, 2021) with females generally being excluded from jazz except for sometimes being the singer or the piano player in the band (Mccord, 1985; Wehr, 2016). Gender injustices have been discussed by researchers in many countries (Jovicevic, 2021; Hall and Burke, 2022; Herzig, 2022). Raine (2019) study of jazz festivals discusses the underrepresentation of females in the jazz scene, with reports of gender discrimination from the interviewees. She goes on to discuss the issue of male dominance in conservatoires, regarding both staff and students. Payne (1996) also discusses the rarity of female jazz educators however Mckeage (2014), on a positive note, describes women who can teach in both classical and jazz genres as being sought after in the job market.

Hall and Burke (2022) describe the challenges that female-identifying students face in tertiary education at undergraduate level, as they 'struggle for inclusion' (p. 336). Although the research is conducted in Australia, it can inform understanding in the UK context, applying the process of transferability (Lincoln and Guba, 2000). These challenges and issues of stereotype threat and tokenism (Wehr, 2016) undoubtedly influence the numbers of females who

participate in tertiary education and then potentially go onward to teacher education programmes.

Several studies have found that there is a masculine association with the instrumentation used in jazz and popular music as discussed by Abeles and Porter (1978), Barber (1998), Mckeage (2004), and Abeles (2009) amongst others, so this is a real consideration for overcoming gender stereotypes in schools and for having instrumental role models whenever possible (Eros, 2008). Girls have been found to prefer violin, flute and piano, whilst boys prefer trumpet, guitar and drums. Barber (1998) found that gender inequity existed in jazz bands due to less girls playing instruments designated as ‘jazz band’ instruments. Green’s (1997) work highlighted teacher beliefs that girls are good at singing but not as good at the more creative composing work.

Källén and Lindgren (2018) in their study of gender in the Swedish music classroom discuss the discourses in music education and meaningful music making for the young person. Although they found the jazz ensemble to be less gendered than the pop and rock ensembles, jazz as a genre was only being played in school, labelled ‘school music’ (p. 229) and gender constructions thereby were encountered which were not part of their embodied social world. These ‘school music’ practices have the potential to recalibrate gendered roles in musical performance (Butler, 2006).

## The climate for learning

Wehr-Flowers (2006) states that many jazz performance classes and ensembles do not promote the type of learning environment that is conducive to those learners with low self-efficacy to be able to flourish. Perceived judgements and expectations take away elements of the learning process. One main way to progress in jazz improvisation is to take part in jam sessions in an informal setting, yet these can be highly competitive and uncomfortable for women, presenting a potential barrier to participation (Raine, 2019). Hall and Burke (2022) discuss the toxicity of the disposition required to get ahead with the stereotypical ‘jazzman identity’... requiring a demonstration of ‘virtuosity, authority and innovation’ (p. 337) and high self-efficacy.

Wehr-Flowers (2006) in her study of gender and improvisation argues that self-efficacy in music is a major contributing factor related to success in improvisation. Perceived competence and self-belief are key factors. Mckeage (2004) discusses the attrition rate and that female participation in jazz decreases as the expectations in improvisation increase. Bandura’s (1982) theory of self-efficacy explores motivation in terms of a person’s belief in their capability to achieve and this is useful to consider regarding music education. Performance and mastery goals have been discussed (Maehr et al., 2002; Creech and Gaunt, 2012) suggesting that those with a mastery goal orientation recover from unsatisfactory performances and concentrate on effort to bring success. Anguiano (2006) found that students became less mastery oriented the further they went through school. Dweck’s (2000) research showed that girls were far more likely than the boys to hold an entity theory and to want to complete achievable tasks where they would not fail, whereas the boys were willing to work harder to master tasks. Stepping outside of comfort zones into the world of improvising where there are no correct answers can require a great deal of self-belief. Byrnes et al. (1999) discuss the gender difference in risk taking behaviour, with males being more comfortable

in risk taking situations. Boys will have a go and take a risk; girls will want to get it right. Musical tastes of adolescents in UK secondary schools were explored by Hargreaves et al. (1995) and they discovered that jazz was not popular amongst girls, showing that opinions can be formed early on.

To foster an interest in jazz and improvising some choose to provide educational projects such as the very successful ‘Jazz Camp for Girls’ workshops originating in Denmark and led by Jazz North in the UK, with female role models, exclusively for female and non-binary participants. In the professional sphere we have an example by way of Interchange, a 16-piece contemporary jazz ensemble led by Issie Barratt, featuring some of the most innovative women jazz composers and improvisers from across the UK. This is in line with Teichman (2018) who makes the case for all girl spaces. Yet some women do not want to have a segregated space and be treated differently:

I’ve never found it an advantage to be a girl. If a trumpet player is wanted for a job and somebody suggests me, they’ll say “What, a chick?” and put me down without even hearing me...I don’t want to be a girl musician. I just want to be a musician.’ (Norma Carson, 1951, in Dahl (1984), p. 85).

Herzig (2022) also discusses the role of women only bands and the call from numerous women to be recognized as musicians rather than women musicians, yet she states that there is a role for all-woman ensembles ‘for overcoming a century of obstacles, misconceptions, and assumptions’ (p. 468). Herzig goes on to advocate for the benefits of all-woman ensembles to promote a nurturing safe space without the pressure of having to prove anything, to promote self-esteem and as a space for mothers (p. 476). MacDonald and Wilson (2006) in their study of jazz musician identities have documented the dominant patriarchal power structures at play and state that identity as a jazz musician may ‘perpetuate a patriarchal social context by problematising feminine identity’ (p. 74). Whichever way the project or educational context is developed, it is the environment and the safe space that is the important bit, be that a mixed gender space or a woman only space so that everyone feels enabled to be able to experiment and take a creative risk (Ansdell et al., 2020).

## Curriculum making: whose music?

Classroom teachers are left to construct their own curriculum from brief policy guidance (Anderson, 2022). In Anderson’s (2021) analysis of curriculum topics in years 7–9 chosen by a sample of 13 secondary schools in England neither jazz nor improvisation made it onto the list of topics under study. ‘Musical Elements’ was the most popular topic (p. 11). Instrumental teachers generally have more freedom to choose their own curricula although may have to work towards school examinations.

Whereas in primary schools (age 5–11) play based learning, creativity and process learning approaches are commonplace, there is an increasing emphasis on examinations and product driven learning in secondary schools (age 12–18) with a focus on musical skills and knowledge (Lamont and Maton, 2010). Tensions exist with what policy documents and examination structures validate as appropriate musical skills and knowledge, such as staff notation and the western canon and

what teachers might wish to do in classrooms to develop musicianship, for example popular or jazz music styles and an emphasis on creativity and student voice (Stakelum, 2008; Wilson, 2022). The tug of war between this political power dominance and the music teacher in school has been an ongoing concern for some time regarding musical value (Anderson, 2021). Fautley and Daubney (2019) discuss the hegemonic issues which arise between learning about music and making music and who is responsible for decision making—what should be taught and learned. In opposition to this predominant discourse of measurable outcomes and increasingly government led curriculum planning, Small, in his seminal first book *Music, Society, Education* (1977) called for an alternative ethos in education whereby ‘explorers... will often not know where they are going until they arrive’ (p. 221) and it is still worth considering this nearly half a century later.

The recently published non statutory English ‘Model Music Curriculum’ (MMC) (Department for Education, 2020) seems to have as its central purpose one of ‘children developing notation skills’ (Fautley and Daubney, 2022) with Nick Gibb, the government minister of the time in charge of the production of the MMC stating that the ‘aim is to make sure that every child is taught to read and write musical notation and has been introduced to the musical giants of the past...’ (Gibb, 2021). Women musicians have been erased or are virtually non-existent in jazz histories (Van Vleet, 2021) and therefore less likely to be studied in schools. The hierarchy of values is also discussed by Moore (2012, 2014) and Anderson (2021) whereby they show evidence that western classical music and pedagogy dominates policy.

There can be a great deal of variation in music education between schools and even in the same school, depending on available resources and individual teacher knowledge and prioritization (Stakelum, 2008; Georgii-Hemming and Westvall, 2010). Pupil ownership of learning in music and engagement is also an ongoing concern in the United Kingdom and in other countries (Finney and Philpott, 2010; Wilson, 2022).

A common theme across the UK is that teachers are anxious about assessment. Accountability in schools is high, and measurement of progress is a concern (Priestley and Minty, 2013). This study explores these issues through the lens of jazz and improvising and how they might be applied, or not, in the secondary school.

## Pedagogical approaches

Most music teachers in the UK have predominantly studied classical music and as a result the pedagogical skill set developed is more suited to teaching western art music (Green, 2002, 2009; Finney and Philpott, 2010). The apprenticeship model of teaching is common in music education, known also as the ‘quasi-classical’ method of music teaching (Woodford, 2004) or the ‘master-disciple’ method of teaching Western Classical music (Turkenburg in Schippers, 2009). The presence of power relations in the apprenticeship model is ‘often associated with a highly commanding position occupied by the master’ (Burwell, 2013, p. 288).

This does align with current rhetoric on the need to achieve measurable learning outcomes and contrasts with Small’s (1977) suggested open exploratory pedagogical approach. Wright (2019) also calls for more space in music education to create an ‘ethos of experimentation’ which is in line with the philosophy underpinning jazz *in* education. It could be suggested that the pedagogy required to teach jazz and improvisation in a secondary school requires a ‘different’ skill

set and that it draws on what has become known as an informal pedagogy (Green, 2002). An informal music pedagogy focuses on the importance of the social context for group learning and music making with experimentation, improvisation, playing by ear and collaboration foregrounded (Green, 2002, 2009). In recent years Green’s (2002) informal learning pedagogy has become more prevalent in the UK through ‘Musical Futures’ and more teachers are becoming confident at embedding informal learning approaches in their practice (Mariguddi, 2021; Wilson, 2022). Although Green’s work is not specific to jazz, but instead looks at the related field of popular music, I suggest it provides a model for a valid learning experience in jazz and is one that teachers can draw on where they will understand playing by ear, collaboration and improvisation through popular music genres. Jaffurs (2006) also states the importance of the informal context in the formal educational environment when learning jazz to support authenticity, as discussed in Green’s (2009) work.

Cognitive apprenticeship has been discussed by De Bruin (2019) as a useful schema for analysing teaching and learning experiences in improvisation in his research with tertiary level students in the one-to-one instrumental lesson—this involves modelling, scaffolding, coaching, articulating, encouraging reflective processes, exploration, and eventually fading of expert guidance as the learner demonstrates their expertise and makes their thinking visible. A similar approach can be found in Black (2017) who draws on the work of Rogoff (1990) in her research with secondary school jazz combo students. A key difference in Rogoff’s (1990) theory of guided participation is that cognitive development is impacted by the sociocultural context. Learners acquire knowledge by being initially guided by experts, gradually undertaking more complex tasks, gaining more expert knowledge and taking more ownership of learning, through the process called guided participation, moving from apprenticeship to participatory appropriation.

Some secondary schools have a jazz ensemble or band, directed by a non-jazz trained teacher in the same way as any other ensemble, where the emphasis is on reproducing repertoire from notation and not improvisation. This type of ‘school jazz’ (Jaffurs, 2006) is commonplace (Mantie, 2007) and although referring to the United States (US) I would suggest this is equally applicable in the UK. Gatien (2009) suggests that non-improvising jazz bands is a product of low teacher-efficacy in teaching improvisation. Studies show that many music teachers are not comfortable with teaching improvisation (Koutsoupidou, 2005; Madura Ward-Steinman, 2007; Higgins and Mantie, 2013; Heble and Laver, 2016). This may be linked back to this fear of risk-taking or as Bull (2019) describes in her study of classical musicians a need to ‘get it right’. For the classically trained musician, improvisation can be an anxiety-inducing experience (Wright and Kanelopollous, 2010) as learning to ‘let go’ can be a source of anxiety.

Questions regarding the teaching and learning of musical improvisation are often asked in connection with genre and prior experience. Campbell (2009) categorises these neatly into three areas: learning to improvise music; improvising to learn music and improvising music to learn (p. 120). Whilst some genre specific methods or classroom pedagogical methods may be concerned with the first of these, I suggest that the last of these is the one that may be most beneficial for realising an individual’s full creative potential. With the development of confidence in improvisational skill comes the development of critical thinking skills, empathy, creative agency and considerations for social justice (Heble and Laver, 2016).

This study seeks to look for ways that gender inequities might be addressed, leading to changes in gender participation in jazz and improvising so that all might fulfil their creative potential.

## Materials and methods

### Methodology and design

Teachers from diverse musical backgrounds and contexts may have vastly different experiences, therefore the research which is the subject of this paper sought to address the gap in knowledge about jazz and improvising in the UK secondary school. A descriptive questionnaire design (Mertens, 2015) was chosen to be appropriate for gathering data to capture their experiences. The questionnaire contained a series of closed quantitative questions and some open-ended qualitative questions to elicit further in-depth responses.

The questionnaire was administered via JISC online surveys and shared through various music teacher social media channels, as well as circulated on mailing lists by the Scottish Association of Music Education (SAME), National Youth Jazz Orchestra (NYJO) and the Independent Society of Musicians (ISM). The questionnaire was launched just at the start of the COVID-19 pandemic in 2020 when schools in the UK were placed into unexpected lockdown.

Information was sought from participants about their experiences, attitudes and beliefs regarding jazz and improvising in relation to their work with young people in schools. Questions related to demographics, experience in jazz, experience as a musician, professional learning, the content of teaching, confidence, anxiety as well as perceived barriers and benefits to incorporating jazz and improvising in their teaching. Quantitative data were gathered using five-point Likert style questions and qualitative data through open ended free text responses.

This paper focuses on these research questions:

- What are teachers' experiences, beliefs and attitudes towards jazz and improvising in their practice?
- What gender differences occur regarding teachers' experiences, beliefs and attitudes towards jazz and improvising in their practice?

### Data analysis

Quantitative responses were analysed using Statistical Package for Social Sciences (SPSS) software, version 26, to produce descriptive and inferential statistics. Whilst analysing the data, a process was carried out in order to ascertain if the statistical tests required to be parametric or non-parametric. Scores were first inspected for normal distribution, as assessed by visual inspection of their histograms. Normal distribution was then assessed by using Shapiro–Wilk's Test ( $p > 0.05$ ). If scores were not normally distributed, then non-parametric tests were selected. When non-parametric tests were used, parametric equivalent tests were also carried out and the same results were confirmed on each occasion. Following a period of immersion in the data, the qualitative data were coded manually and developed into themes, following a process of in depth reflexive thematic analysis, based on Braun and Clarke's (2006, 2019) six stage process. The data were revisited until patterns of shared meaning were constructed, with final themes being generated, allowing

participants' experiences to guide the coding. Quotes from participants will be used to support the quantitative findings.

### Participants

One hundred and seventy responses were received from practitioners in Scotland, England and Wales, with 57% ( $n=97$ ) of these from Scotland and (43%,  $n=73$ ) from England/Wales. As very few responses were received from Wales the decision was made to combine the two countries into one category. No responses were received from Northern Ireland. Responses were received from practitioners working with young people in Academies, Local Authority, Free and Independent schools. More women completed the survey overall (53%,  $n=90$ ) compared to men (47%,  $n=80$ ). This pattern was consistent in Scotland and England/Wales. Most of the participants (94%,  $n=159$ ) were from a white ethnic background. The respondent characteristics (gender and ethnicity) are in line with data on secondary music classroom teacher characteristics from Scottish Government (2021) and the Department for Education England (2020), therefore this can be considered a representative sample. (28%,  $n=47$ ) of the respondents had a jazz qualification: 36%,  $n=17$  were female and 64%,  $n=30$  were male. No participants identified by any other gender. Over one third of the respondents (38.32%,  $n=64$ ) had attended some form of in-service training, or course related to jazz or improvisation with (56%,  $n=36$ ) of them being female. There was a satisfactory spread of respondents from teachers with less than 3 years up to those with 21 years plus teaching experience.

Figure 1 shows the data broken down by professional role within the school and gender. From the list of categories in Figure 1 the secondary classroom teachers and head of department/faculty heads were then collapsed into the broader category 'classroom teacher' (CT) with all others collapsed into the broader category 'instrumental teacher' (IT). Respondents who answered 'other' were heads of instrumental service so were matched to the category 'IT'.

### Identity as a musician/musician type

It can be seen in Figure 2 that 64% ( $n=58$ ) of the women who responded identified as classical musicians whereas 33% ( $n=26$ ) of the men identified as classical musicians. 33% ( $n=26$ ) of the men who responded and 12% ( $n=11$ ) of the women who responded identified as jazz musicians. In the category described as 'other' the unanimous response was 'musician'.

### Personal experience (former or current) of jazz and improvisation

It should be noted in Figure 3 that 53% ( $n=42$ ) of the men perform regularly or are professional/semi-professional performers, whereas this figure was much lower at 23% ( $n=21$ ) for the women.

### Main instrument played

Some respondents identified more than one instrument as being their 'main instrument' so for the purposes of this analysis only the first

Professional role within the school	Male	Female		
Secondary classroom teacher	13	27	}	CT
Head of department/faculty head	10	21		
Peripatetic instrumental teacher (employed by local authority or hub)	29	21	}	IT
Peripatetic instrumental teacher (self-employed)	9	8		
Freelance musician	6	3		
Youth Music Initiative tutor	3	0		
Private instrumental Tutor	2	3		
Community musician	1	0		
Other	7	7		
<b>Total</b>	<b>80</b>	<b>90</b>		

FIGURE 1 Professional role within the school and gender.

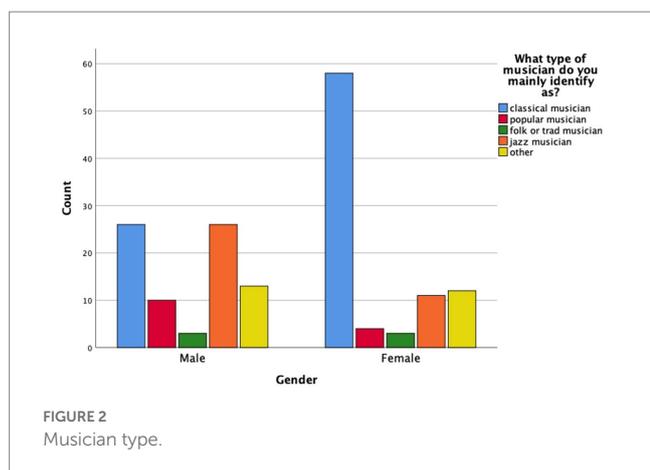


FIGURE 2 Musician type.

one listed has been selected. A crosstabulation was carried out in order to ascertain frequency of instrument responses, along with the relation to gender and experience in jazz. A frequency comparison was run using NVivo to see if there was any difference in the instrumentation of those who identified as having no/very little experience in jazz compared to those who performed regularly or who identified as being professional or semi-professional musicians. See Figure 4.

Piano was the main instrument played overall by respondents in the study. Voice is more prominent for females. Except for the saxophone which features in the female pro group, other instruments traditionally associated with 'jazz' and 'males' (trumpet, guitar, drums) all feature in the male 'pro' group only.

### Experiences, attitudes and beliefs

Respondents were asked to comment on a range of statements regarding teaching content/strategies in jazz and improvisation, perceived confidence levels and improvisation in a range of genres. Mean values were calculated. Respondents were then asked to comment on a range of statements related to perceived jazz

Personal experience	Male		Female	
	jazz	impro	jazz	impro
None	3	1	12	5
Very little	19	11	37	41
Moderate	16	18	20	28
Perform regularly	7	17	12	6
Professional/semi professional	35	33	9	10

FIGURE 3 Personal experience (former or current) of jazz and improvisation.

improvisation anxiety. This was adapted from the Wehr-Flowers (2006) Jazz Improvisation Anxiety Scale which in turn was based upon the Fennema and Sherman Mathematics Attitude Scales (1976). A reliability analysis was carried out on the jazz improvisation anxiety scale comprising 10 items. Cronbach's alpha showed the ten-item scale to have good reliability, alpha=0.96 for the CT group and alpha=0.97 for the IT group. Reliability and validity data from previous studies was not available on the other aspects of the study, however items were summed into composite measures and a Cronbach's alpha statistic was calculated for each group of items to check appropriateness of fit. Negatively framed statements were reversed as appropriate prior to this process. The Cronbach's alpha statistic for each composite measure was as follows: teaching content/strategies: 0.92 for the CT group and 0.95 for the IT group; improvising in a range of genres: 0.81 for the CT group and 0.87 for the IT group; perceived confidence levels teaching jazz and improvising: 0.93 for the CT group and 0.95 for the IT group.

### Experiences: teaching content/strategies

See Figure 5 activities highlighted in yellow (with higher mean scores) are infrequently studied (3 is once or twice per term, with 4 being not at all.) Activities highlighted in turquoise (with lower mean scores) are more frequently studied (1 is five or more times per term, with 2 being three to four times per term.) It can be noted that the IT group have lower mean scores for every item common to both groups,



Content/strategies	Class teachers (CT)		Instrumental teachers (IT)	
	M	SD	M	SD
<i>I am aware of the school exam board jazz concepts and incorporate them into my teaching</i>			3.00	1.20
<i>I include jazz repertoire in my teaching</i>			1.99	1.07
<i>I include jazz improvisation in my teaching</i>			2.18	1.20
<i>I teach school exam board jazz concepts through an understanding music (listening) context</i>	2.45	.90		
<i>I teach school exam board jazz concepts through a composition context</i>	3.07	.69		
<i>I teach school exam board jazz concepts through a performing context</i>	2.79	.87		
<i>I teach 12 bar blues in a performance context without any improvisation</i>	3.26	.86		
<i>I teach 12 bar blues in a performance context with improvisation</i>	2.76	.75		
<i>I encourage young people to learn aurally (without the sheet music)</i>	2.51	.98	1.88	.99
<i>I teach jazz related concepts in the Broad general Education/Key Stage 3</i>	2.58	.77		
<i>I teach jazz related concepts in the Senior Phase/Key Stage 4 and beyond</i>	2.48	.83		
<i>I teach jazz improvisation in the Broad general Education/Key Stage 3</i>	2.92	.65	2.72	1.25
<i>I teach jazz improvisation in the Senior Phase/Key Stage 4 and beyond</i>	3.30	.69	2.58	1.25
<i>I include improvisation from a range of genres in my teaching</i>			2.18	1.17
<i>I teach improvisation from a range of genres in the Broad general Education/Key Stage 3</i>	3.01	.84		
<i>I teach improvisation from a range of genres in the Senior Phase/Key Stage 4 and beyond</i>	3.28	.68		
<i>I use repertoire from ABRSM/TCL jazz exams in my teaching</i>	3.68	.73	3.14	1.15
<i>I encourage young people to listen to jazz</i>	2.51	.90	1.89	.99
<i>I teach young people how to improvise using blues scale activities</i>	2.75	.67	2.37	1.20
<i>I teach young people how to improvise using pentatonic scale activities</i>	2.76	.75	2.24	1.20
<i>I use call and response patterns to develop jazz improvisation</i>	2.82	.88	2.29	1.27
<i>I personally demonstrate swing feel and groove</i>	2.58	.95	1.85	1.06
<i>I personally demonstrate improvised jazz solos</i>	2.86	.89	2.26	1.23
<i>I use Aebersold/irealpro (or similar) materials to support the teaching of improvisation</i>			2.93	1.25

FIGURE 5 Experiences: teaching content/strategies.

Range of genres	Class teachers (CT)		Instrumental teachers (IT)	
	M	SD	M	SD
<i>I facilitate informal learning type sessions (e.g., 'musical futures', playing by ear, using chord charts, peer learning)</i>	2.54	.99	2.03	1.13
<i>I teach improvisation in non-western genres (e.g., gamelan, samba)</i>	2.93	.73	3.29	.94
<i>I teach free improvisation</i>	3.46	.74	3.15	.85
<i>I teach jazz improvisation</i>	3.16	.66	2.32	1.21
<i>I use graphic scores</i>	3.32	.80	3.34	.99
<i>I use improvisation as a basis for composition</i>	2.83	.84	2.83	1.09
<i>I teach improvisation in contemporary commercial music (e.g., pop, rock, indie)</i>	3.13	.87	2.79	1.23
<i>I teach improvisation in response to stimuli</i>	3.03	.91	2.72	1.16

FIGURE 6 Experiences: teaching a range of genres.

instrumental teacher group. The male instrumental teachers use improvisational activities from a range of genres more than their female counterparts, whereby there is no significant difference in the classroom teacher group.

### Attitudes and beliefs: jazz improvisation and anxiety

Results in Figure 7 indicate that females are significantly more anxious towards learning jazz improvisation and that CTs are in turn more anxious than ITs. The mean score for females was lower than the mean score for males on every statement of the anxiety scale which further reinforces the differences. Length of time teaching did not have any statistical significance on anxiety towards jazz improvisation in either context.

### Mean anxiety scores

#### Classroom teachers group

A Mann–Whitney U-test revealed a significant difference in the scores of males (Md=2.10, n=23) and females (Md=3.40, n=48), U=316, z=−0.2.9, p=0.00, r=−0.34.

#### Instrumental teachers group

A Mann–Whitney U-test revealed a significant difference in the scores of males (Md=2.00, n=57) and females (Md=3.30, n=42), U=686, z=−0.3.6, p=0.00, r=−0.36.

The anxiety variable used in this survey was utilised from Wehr-Flowers (2006) who classified it as being designed to measure feelings of anxiety, dread, nervousness, and associated bodily symptoms related to doing jazz improvisation. The anxiety dimension ranged from feeling at ease to those of distinct anxiety. Mean scores for the anxiety scale for female class teachers are the highest at 3.30 suggesting that anxiety might be more debilitating for females than for males. Anxiety scores were significantly higher for females in both the IT and CT group (Figure 8).

The data show no mean responses in the not very confident or not at all confident bracket (acknowledging that there are standard deviations from this). There are few areas that the respondents self-report that they feel least confident in. An independent samples t-test was conducted to compare the overall confidence scores for males and females.

#### Classroom teachers group

There was a significant difference in scores for males (M=2.37, SD=0.79) and females [M=2.86, SD=0.79; t (69)=−2.43, p=0.018,

Item	w	Jazz Improvisation Anxiety Scale	Class teachers		Instrumental teachers	
			M	SD	M	SD
1	+	Jazz improvisation doesn't scare me at all	3.20	1.27	2.50	1.44
2	+	It wouldn't bother me at all to take a professional learning course in jazz improvisation	2.51	1.20	1.87	1.05
3	+	I wouldn't worry about improvising a jazz solo	3.14	1.28	2.44	1.42
4	+	I wouldn't get nervous performing a jazz improvisation	3.42	1.19	2.73	1.49
5	+	I would be at ease performing a jazz improvisation	3.39	1.22	2.51	1.49
6	-	Improvising jazz would make me uncomfortable and nervous	3.22	1.20	2.39	1.40
7	-	I get a sinking feeling when I think of trying to improvise jazz	2.80	1.26	2.08	1.32
8	-	My mind would go blank and I wouldn't be able to think clearly if trying to improvise jazz	2.72	1.22	2.11	1.29
9	-	A test on jazz improvisation would scare me	3.26	1.33	2.62	1.49
10	-	Jazz improvisation makes me feel uneasy and scared	2.75	1.15	2.12	1.36

#### Mean anxiety scores

	Female	Male		Female	Male
Class Teachers (CT)	3.30	2.52	Instrumental Teachers (IT)	2.97	1.88

FIGURE 7 Jazz improvisation and anxiety.

How confident do you feel about...?	Class teachers		Instrumental teachers	
	M	SD	M	SD
Demonstrating an improvised jazz solo	3.06	1.29	2.44	1.49
Demonstrating an improvised solo using the blues scale	2.52	1.15	2.23	1.35
Leading improvisation activities using call and response patterns	2.23	1.00	2.00	1.22
Using free improvisation activities in your teaching	3.06	1.16	2.07	1.18
Facilitating informal learning ('Musical Futures' type sessions (e.g. playing by ear, group work, using chord charts)	2.32	1.01	1.79	1.06
Teaching improvisation in non-western genres (e.g. gamelan, samba)	2.72	1.22	3.04	1.46
Teaching jazz improvisation	2.94	1.15	2.44	1.41
Using graphic scores in your teaching	2.83	1.12	2.74	1.33
Using improvisation as a basis for composition	2.61	1.08		
Teaching improvisation in contemporary commercial music (e.g., pop, rock, indie)	3.00	1.16	2.44	1.34
Demonstrating swing feel and groove	2.38	1.13	1.88	1.14
Teaching rhythm section players how to play appropriate accompaniment patterns for jazz music	2.87	1.24	2.59	1.43
Facilitating learners to compose in a jazz idiom	3.28	1.21	2.58	1.41
Reading and interpreting extended chord symbols	2.41	1.15	2.20	1.35
Facilitating a classroom culture tolerant of ambiguity connected to musical improvisation, where there may be no correct answers	2.3	1.05		

FIGURE 8  
Attitudes and beliefs: confidence levels.

two-tailed]. The magnitude of the difference in the means [mean difference=0.49, 95% CI: -0.89 to -0.88] was **moderate** (eta squared=0.08).

## Instrumental teachers group

There was a **significant difference** in scores for males ( $M=1.99$ ,  $SD=0.93$ ) and females ( $M=2.79$ ,  $SD=0.1.09$ ;  $t(96)=-3.93$ ,  $p=0.000$ , two-tailed). The magnitude of the difference in the means [mean difference=0.79, 95% CI: -1.20 to -0.39] was **large** (eta squared=0.14).

The data shows that males are more confident than females in both the CT and IT group.

## Confidence and musician type

Respondents were asked to categorise the type of musician they identified as (Figure 2). The assumption of normality for confidence scores was satisfied for most combinations of gender and type of musician, as assessed by Shapiro-Wilk's test ( $p>0.05$ ) however group sizes for folk/trad in male and female and jazz in female were too small, thus violating assumptions of normality for a two-way ANOVA. A Kruskal-Wallis test was carried out in place of this.

## Classroom teachers group

A Kruskal-Wallis test revealed a **statistically significant** difference in confidence levels across 5 categories of musician (Gp 1,  $n=45$ : classical, Gp2,  $n=7$ : popular, Gp 3,  $n=3$ : folk/trad, Gp 4,  $n=4$ : jazz,

Gp 5,  $n=10$ : other),  $\chi^2(4, n=69)=15.76$ ,  $p=0.003$ . The classical group recorded the highest median score ( $Md=3.00$ ) followed by folk/trad and other ( $Md=2.27$ ) popular ( $Md=2.20$ ) and jazz ( $Md=1.80$ ).

## Instrumental teachers group

A Kruskal-Wallis test revealed a **statistically significant** difference in confidence levels across 5 categories of musician (Gp 1,  $n=39$ : classical, Gp2,  $n=7$ : popular, Gp 3,  $n=3$ : folk/trad, Gp 4,  $n=32$ : jazz, Gp 5,  $n=15$ : other),  $\chi^2(4, n=96)=45.82$ ,  $p=0.000$ . The folk/trad group recorded the highest median score ( $Md=3.69$ ) followed by classical ( $Md=3.08$ ), popular ( $Md=2.00$ ) other ( $Md=1.92$ ) and jazz ( $Md=1.38$ ).

As might be expected, the educators with most confidence to teach jazz and improvised music were the jazz musicians in the survey, with the least confident being the classical musicians and the folk/trad musicians.

## Perceived barriers to learning jazz and improvisation

The respondents were asked to comment in optional free text boxes as to what they thought barriers might be to a young person learning jazz or improvisation. They were then asked to add optional comments regarding any barriers in their own way when thinking about teaching jazz and improvisation. These qualitative responses are used to further illuminate the previous quantitative responses. These perceived barriers to learning and teaching may explain why teachers do or do not implement jazz and improvised activities in their teaching, so are therefore worthy of analysing to attain a rich, thick

description (Geertz, 1978). The following themes were constructed: fear; lack of resources and not fitting the system in schools.

## Fear

There was an overwhelming response in this theme, with many holding beliefs that aligned to using the word 'fear' and making comment regarding the open nature of jazz and improvised music. It was perceived that learners would be fearful of having choice, that there seems to be a preference for knowing how to get something right:

'Fear of getting it wrong has become more prevalent in the past few years.' (T1).

'There is a massive 'fear' factor from teaching staff' (T4).

Getting things wrong, fixed mindset, lack of listening practice (T17).

Although teachers were asked to describe their perceived barriers to learning these frequently manifested as barriers in the way of teacher beliefs. There were also several comments made regarding learners not feeling comfortable to play in front of each other, fearing failing and making mistakes, looking stupid and feeling intimidated.

'embarrassment from playing 'badly' in front of peers. Unsure what to do/play.' (T3).

'Scared of failing or making mistakes or looking stupid in front of their peers (T6).

For some there was a perceived mystery, or respondents felt that their learners would not be aware enough of the music and would fear it as a result:

'there is a myth surrounding jazz and improv that it is quite niche and a difficult thing to do' (T8).

'some see it as 'old people's music' and many are afraid to take a solo' (T10).

The data show that some teachers feel that there are gendered inequities regarding jazz and that a patriarchal culture exists:

'...I also think developing confidence, especially among females is a problem, and the lack of female role models (especially instrumentalists) among jazz is problematic for me—from personal experience I've found that jazz seems to be a very macho culture, and female jazz musicians have found it very difficult.' (T12).

There were also comments which showed some beliefs that jazz was an exclusive type of music:

'perceived lack of inclusivity from those who play jazz. It feels like you are listening at an exclusive club.' (T9).

## Lack of resource

The major resource cited as lacking was teacher knowledge, with some respondents also citing lack of access to teachers with experience in jazz and improvisation. This contrasts somewhat to the fact there was agreement/strong agreement to the phrase 'anyone can improvise.'

'some teachers are scared of teaching it or feel that if they are not a jazz musician then they are not qualified to teach improvisation' (T21).

'Lack of willingness to learn it, time pressures within schools—we still have to conform to a small set of musical concepts in the education system unlike the real world...so many classroom music teachers never actually play an instrument in public, and certainly do not have any jazz experience, hence they would never teach it. The lack of music provision in primary schools has also now had a drastic effect on the level of general music ability in S1.' (T32).

Some respondents went on to say that there was a perceived feeling of disdain regarding jazz:

'too many teachers do not know how to incorporate improvisation and (in my experience) actively discourage those pupils from jazz and improv' (T12).

'the opportunities to learn it do not exist. The majority of teachers cannot improvise or understand (and look down on) the specifics of jazz.' (T13).

Lack of access to live jazz was frequently mentioned, with teachers saying that young people did not get to see, hear or get to know the music:

'people thinking its Glenn Miller and only that' (T14).

Some commented on the lack of ensembles playing jazz and improvisation for their learners to be able to join:

'lack of school/local authority music ensembles and suitably qualified/enthusiastic staff' (T17).

Several teachers believed that there was an issue regarding the lack of skills, knowledge and confidence on the part of the learner, relating this in some cases to a general lack of funding in music:

'lack of confidence and basic performing skills' (T18).

'Not understanding chords and keys sufficiently well.' (T19).

## Not fitting the system in schools

The data show that teachers feel that there are time pressures and a culture in schools whereby focusing on getting things correct to pass exams is a key driver.

‘the constraints of exams, getting it right’ (T2).

Jazz and improvisation, with its ambiguity was not perceived to easily ‘fit’ this model and some even struggled to justify this learning and teaching approach within their schools.

‘schools like to see measurable progress, and so for that reason it seems that only the aspects of jazz that can be taught and measured are focused on. Jazz also does not seem to be as highly regarded or valid within education, when I’m doing improvisation activities I often feel self-conscious that other members of staff might think I’m just ‘messing around’ if they came into a lesson.’ (T21).

Teachers commented on priorities in the curriculum, and the hierarchies, with classical music and notation-based activities taking priority, to fit with perceived expectations.

‘the teaching of classical music seems to be far greater than jazz in my opinion. I feel this takes away from an improvisational approach to music.’ (T44).

There were many comments from teachers who believed that learners would find working without musical notation a barrier:

‘pupils are so used to reading the notes from a page’ (T23).

‘no music in front of them, scared of it, do not know what to do’ (T24).

## Perceived barriers to teaching jazz and improvisation

The following themes were constructed: perceived lack of ability; encountering negativity; lack of resource.

### Perceived lack of ability

Many respondents commented on a perceived lack of skills/knowledge or ability to be able to teach jazz and improvisation:

‘Lack of experience in the genre. As is the case with pupils fear of not knowing what to play when a teacher has been so reliant on notation for most of their musical lives’ (T25).

There were various comments regarding lack of personal training/experience and lack of confidence, as well as further comments about the fear of getting things wrong.

‘My knowledge of jazz and improvisation is limited. I feel comfortable with teaching what is expected of the curriculum, but to go further than this would be challenging for me. It is mainly a confidence issue on my part’ (T31).

‘Terrible in service days’ (T43).

There were many comments about a lack of pedagogical understanding—not knowing how to teach jazz and improvisation—both CT and IT groups made comments related to this, although most of the comments were from the IT group.

## Encountering negativity

Although both CT and IT groups made comment about encountering negative perceptions from others, most comments about this came from the IT group. These comments link to the earlier theme of the belief of not fitting the system in school, based on the experiences these teachers have had:

‘biggest barrier is negative perception of jazz’ (T4).

‘not taken seriously as a style by managers’ (T28).

‘there is still a lingering feeling that this is not ‘proper’ music and sometimes fear and lack of engagement from colleagues who find the prospect of improvisation rather scary’ (T29).

## Lack of resource

Although both CT and IT groups made comments regarding lack of resources, most of the comments of this nature were from the CT group. Resources and rooming were seen to be an issue for the CT group, as well as comments regarding children having access to music in general.

‘Having the resources like access to a drum kit, bass amp, piano if I’m teaching a small ensemble. And enough time to explain jazz concepts and nuances.’ (T30).

‘more pupils learning instruments/music from a young age’ (T31).

Teachers commented on lack of time in the curriculum and the constraints of the exam requirements as well as the need for learners to have an advanced skill set in order to begin playing jazz and improvising, which did not fit with the perceived requirements of the curriculum:

‘Have so much else to teach within the curriculum and often improv is not part of the schools set out yearly plan so as a new teacher I do not always feel confident introducing it’ (T3).

'it requires a high level of skill and knowledge of your instrument. Pupils often do not have the time needed to invest in developing advanced skills.' (T21).

After analysing the quantitative and qualitative data separately, results were compared in order to identify similarities and differences. There are many teachers uncomfortable, feeling anxious and lacking confidence with teaching jazz and improvisation and results show that gender is a significant barrier regarding access. Experiences, attitudes and beliefs across the CT and IT groups are not always the same, therefore different challenges are experienced, which will be discussed in the next section. The data points to systemic barriers which will be discussed. Although most responded agree or strongly agree to the prompt 'anyone can improvise' this did not appear to match the qualitative responses when teachers were asked to apply this to themselves.

## Discussion

The findings indicate that there can be a great deal of variation in the amount of time spent on jazz and improvising in UK secondary schools depending on available resources as well as competencies, attitudes and beliefs of the teacher and that teachers foreground different things to suit their knowledge and prioritisation (Stakelum, 2008; Georgii-Hemming and Westvall, 2010). Many respondents were anxious at the thought of having to 'let go' without notation (Després et al., 2016). Female teachers reported feeling significantly less confident and significantly more anxious when it came to teaching jazz and improvisation which is in keeping with the literature (Koutsoupidou, 2005; Wehr-Flowers, 2006; Madura Ward-Steinman, 2007; Higgins and Mantie, 2013; Heble and Laver, 2016). The qualitative data shed particularly rich light on this aspect, with fear of failure coming through as a significant issue. This is a matter for concern as it impacts on the potential for creative music making approaches taking place in secondary school and therefore affects the learning experience for young people.

Findings showed that male CTs undertake jazz and improvisation activities significantly more than female CTs, however in the IT group there is no significant difference. Length of time teaching had no bearing on the results which suggests that experience is not a contributing factor to choices made regarding jazz and improvising. When considering improvisation from a range of genres there is no significant difference in the CT group, yet in the IT group males undertake improvisation from a range of genres significantly more than female ITs. This may suggest that female ITs may be comfortable teaching jazz styles, or undertaking jazz activities, however it is potentially the improvisation element which causes a challenge. This aligns with Mckeage (2004) whereby female participation decreases as demands in improvisation increase. An interesting finding is in the CT group whereby there is no significant difference for gender and improvisation for a range of genres, which may suggest that female CTs are more comfortable facilitating improvisation in a range of genres than they are in jazz improvisation. Teaching improvisation in non-western genres was an unpopular activity for the IT group, however this was a more popular activity for the CT group. This may reflect curricular content related to exam boards which would be studied with the CT group and therefore possibly be more familiar to some.

Results do show that the IT group spend more time overall teaching jazz and improvisation than the CT group. This could be as a result of the IT group having more freedom to choose content, or the fact that CTs have a crowded curriculum to cover and may feel that jazz and improvisation cannot play a major part in this (Anderson, 2021). Notation-based teaching was dominant throughout, with creative and improvisatory approaches in music lessons taking a far lesser role, concurring with research which states that the curriculum is dominated by a focus on technical development, skills of reproduction and an emphasis on musical notation (Stakelum, 2008; Georgii-Hemming and Westvall, 2010; Wilson, 2022).

A key finding from the data which aligns with the literature is that many teachers are faced with systemic barriers and the performativity agenda, and that jazz and improvising does not easily fit into what they feel is expected of them in the curriculum and school (Burnard and White, 2008; Priestley and Minty, 2013). There are tensions between what they would like to do and what they feel is expected of them (Anderson, 2021; Wilson, 2022). The prioritising of examinations and pedagogies associated with the dominant classical canon (Allsup, 2003; Fautley and Daubney, 2019) influences how the subject is taught as well as what is taught. This needs to be addressed in order to disrupt the hegemonic status quo and to challenge these practices.

Many participants reported that they lacked the professional skills and knowledge to teach jazz and improvisation yet over a third had reported that they had attended some form of in-service training, or course related to jazz or improvisation, although this was not always well received and reported as inadequate. This suggests that more tailored professional learning in jazz pedagogy for teachers is needed. The data show that females show a desire to improve their practice in jazz and improvisation, however not as many females had a jazz qualification. This may suggest that females are willing to learn entry-level concepts but do not want to/lack confidence to progress to more advanced areas of study in jazz and improvisation in line with Mckeage (2004).

The study resonates with the literature which states that most music teachers come from a Western art music background (Allsup, 2003; Moore, 2012, 2014) and that there are gendered differences in the numbers coming from classical and jazz backgrounds (Raine, 2019). It can be noted that the instruments played by the respondents do align with gender stereotyping of instruments to a large degree (Abeles and Porter 1978; Mckeage, 2004; Abeles, 2009). In Abeles' (2009) study, 20% of males and 10% of females did not conform to gender stereotypes so this pattern may continue to change with time.

Almost all teachers believed there to be many benefits to gain from jazz and improvising, however this did not translate into much of this type of music teaching happening in practice. The data exemplify the notion that many of the respondents are unsure of pedagogical strategies required in order to facilitate a climate for learning where using 'mistakes' as a natural learning opportunity is to be encouraged (Healy, 2014).

There are a number of options for addressing these issues. Evidence has shown there is a need for more tailored professional learning, both in initial teacher education and in-service continuous professional learning, in a supportive environment, to support women to develop personal jazz improvisation skills and pedagogical skills. An important distinction must be made regarding *what* is taught and *how* something is taught. This can be related to Campbell's (2009) categorisations—learning to improvise music;

improvising to learn music and improvising music to learn (p. 120). Drawing on strategies from the cognitive apprenticeship schema (De Bruin, 2019) and Rogoff's (1990) guided participation theory, making thinking visible for the different contexts of one-to-one lessons, ensembles and classroom teaching would help support teachers across these contexts.

Encouraging experimentation and risk taking so that women can get more comfortable and less anxious is paramount. This is an area in which more time could be devoted to during initial teacher education (ITE) in the UK as this would undoubtedly enhance access and equity of opportunity. ITE can play a big role by providing safe spaces for women to embody this way of music making and pedagogy—this jazz *in* education practice and 'ethos of experimentation' building on the work of Wright (2019) and Small (1977), encouraging the use of 'mistakes' as a natural learning opportunity (Healy, 2014). This may help overcome the fear of failure. Workshops should also be embedded in ongoing professional learning so that women can experience jazz and improvising practically and as they become curriculum makers, they can come to know how to take a creative risk and to apply these jazz in education processes across the curriculum, to help make things 'fit the system'. Providing the opportunity for mastery experiences (Dweck, 2000) to build self-efficacy (Bandura's, 1982) would be advantageous. Helping students understand anxieties experienced during jazz performance and working through these experiences, with heightened physiological states (Wehr, 2022), with supportive female role models to reduce tokenism (Wehr, 2016) can all help create a safe learning space (Ansdell et al., 2020).

These need not be 'women in jazz' spaces, as this can further highlight a separation. Instead, educators should promote a safe space for all to flourish, through inclusive pedagogy and having 'big ears' (Tucker, 2002) to listen for gender and to counter the masculine hegemony found so often in jazz spaces (Caudwell, 2010; Dobson, 2010; Jovicevic, 2021; Hall and Burke, 2022). Work needs to be done to continue to challenge the multiple power dimensions (Ansdell et al., 2020) so that all can make and share music together.

The study resonates with the literature which states that most music teachers come from a Western art music background (Allsup, 2003; Moore, 2012, 2014) and that there are gendered differences in the numbers coming from classical and jazz backgrounds (Raine, 2019). More could be done to encourage jazz graduates to enter teacher education courses and to promote jazz undergraduate courses to females (Raine, 2019). Gender associations with instruments have implications for young women and gender nonconforming students potentially not seeing role models in jazz and improvisation (Eros, 2008) so more must be done to raise awareness of this so that a young person can believe any instrument is a possibility. However, it must also be acknowledged that anyone playing an instrument not traditionally associated with jazz could be encouraged to develop skills in jazz and improvised music, thus further reducing barriers to access. Resources regarding repertoire for listening and performance featuring women should be highlighted to teachers so that they can normalise women in jazz without referring to 'female' jazz musicians. More opportunities need to be created for the right conditions for women to thrive in jazz. Teachers could

be encouraged to embed jazz in education practices in various popular units of work such as 'musical elements' (Anderson, 2021) and not just topics in 'jazz'—for example by 'normalizing' activities such as playing by ear (Green, 2009). This would help create a climate for developing jazz and improvisation activities and reduce anxiety at the thought of stepping outside of comfort zones and could also remove the potential barrier of notation for some. Many contemporary composers (across genres) use graphic scores, so a recognition by policy makers that these are a valid form of musical literacy would be beneficial.

Almost all teachers believed there to be many benefits to gain from jazz and improvising, however this did not translate into much teaching happening in practice. There are undoubtedly many benefits from learning any type of music, however, more could be done to share the benefits specific to learning in jazz and improvisation. This may help teachers understand the implications of introducing or giving a bigger space in the curriculum to jazz and improvisation unlike now where it is a low priority (Higgins and Mantie, 2013; Anderson, 2022). More advocacy could be done to share the benefits of learning and teaching which may be specific to jazz and improvisation and which could enhance all areas of the wider curriculum. This may encourage teachers, managers and policy makers to realise the specific benefits that jazz and improvisation can bring.

## Limitations and future directions

It should be noted that 37% ( $n=63$ ) of the respondents in this survey perform jazz regularly or are professional/semi-professional jazz performers.

Given that there is a large percentage of 'jazz' minded educators as part of this sample, this points to the fact that there may be even less jazz and improvisation going on in classrooms around the United Kingdom than this survey suggests. It is acknowledged that this study is set within the parameters of the UK music education system and that although context will differ greatly, it is hoped that by using thick description (Geertz, 1978) the reader may be able to relate to their own experience and apply what Lincoln and Guba (2000) define as the process of transferability. Respondents were recruited online just as the COVID-19 pandemic began. This may have impacted potential respondents as teachers were suddenly thrown into unexpected lockdown. A more ethnically diverse sample and more respondents from Wales and Northern Ireland would be interesting to study for comparison. Intersectionality is a vital lens for studying power inequalities. Future studies could address gender and race or gender and disability in jazz and improvisation regarding education and the impacts of this. The experiences of gender fluid and gender non-conforming teachers and students would also be worthy of study. It would be beneficial to capture data from the perspective of the young person in the classroom and the instrumental lesson as teacher and pupil perspectives may differ. It would also be beneficial to gather data from case studies where jazz and improvising is successfully embedded within practice in UK secondary schools, particularly led by women musicians coming from a range of backgrounds.

## Conclusion

This study builds upon previous research highlighting structural barriers and gendered inequities and highlights data to help paint a picture of the landscape of jazz and improvising currently taking place in UK secondary schools. It provides evidence showing that gender really does influence choice. Whether that is through a perception of ability, self-efficacy, performance opportunity, willingness to take a risk, willingness to challenge the norms of curriculum or through pedagogy.

Evidence has shown that female music teachers in the UK, who are in the majority, encounter more barriers than their male colleagues and this in turn leads to them having less confidence and more anxiety regarding jazz and improvisation. Creating a climate for learning whereby everyone feels enabled to be able to experiment and take a creative risk is paramount. Nurturing a creative disposition from an early age in music education, with informal learning pedagogies as routine could underpin the development of jazz and improvisation in classroom and instrumental music, building resilience in learners. Providing mastery experiences (Dweck, 2000) normalising recovery and learning from 'unsatisfactory' performances (Maehr et al., 2002) as well as promoting higher self-efficacy in jazz and improvisation learning (Bandura, 1982) is paramount.

Children having access to music education and instrumental tuition from an early age is vital to develop jazz and improvisation amongst all other forms of music making and sharing. Learning in a socio-cultural environment with the skills found in jazz and improvisation—with an emphasis on exploration, experimentation, learning aurally, group interaction and collaboration, embodying such qualities as risk-taking, reflexivity, spontaneity, exploration, participation and play embodies as Higgins and Mantie (2013) suggest—a distinct way of being in the world. These qualities are unique to jazz and improvisation and could have huge educational potential—the skills valued in the opening quote, as really learning music. This is *jazz in education*.

We need teachers with confidence to embed jazz and improvisation practices in their work in order that young people can access this and take ownership of their music making. Work must be done to empower women at all levels to realise this ambition. Making music together and having positive mastery experiences will help build self-esteem and negate any potential fear of failure. It is vital that professional learning in pedagogy is provided in tandem with experiences in music making. This may enable women to disrupt and challenge the hegemonic status quo (Fautley and Daubney, 2019) and take a creative risk (Ansdell et al., 2020).

It is hoped that this paper has offered a unique contribution to the field by way of documenting teachers' experiences, attitudes and beliefs in relation to jazz and improvising in secondary schools in the UK, as well as illuminating perceived barriers to and issues regarding the nature of learning, teaching and the doing of jazz and improvising with a particular focus on gender, equity, access and inclusion. There

are real barriers for women teachers in secondary schools that need to be addressed if changes in gender participation in jazz are to happen.

The aspiration is this:

'A gender equal education system. When girls and young women are in school or learning they are happy and safe and can take part in all the topics and activities they want to do.' (Children's Parliament, 2022, p. 6).

Just imagine if there was no fear of failure.

## Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

## Ethics statement

The research involving human participants was designed taking account of the ethical guidelines of the British Educational Research Association (BERA, 2018) and was approved by the ethics committee of Edinburgh College of Art at the University of Edinburgh. All participants were provided with information about the study and were guaranteed anonymity and confidentiality.

## 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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