Check for updates

Digital DJing in the GCSE Classroom: Art or instrument?

JAKE WILLIAMS

University of Birmingham, UK
Email: mrjakeone@gmail.com

Between 2022 and 2023 I ran two experimental DJing workshops in a school in East London with Year 10 GCSE music students. They were experimental in the sense that I had not run workshops with this age group before and that I was sharing some experimental techniques with digital DJ technology (DDJT) that I had been exploring in my own practice. They proved to be highly engaging for the young people and highlighted significant, and sometimes unexpected, benefits of using DDJT in the classroom. The results of the workshops are analysed in the context of the 2016 addition of DJing as an 'instrument' for the performance component of the GCSE assessment, alongside claims that this is a 'challenge to colonisation'. While the addition is viewed as positive, it is questioned whether viewing DJing as being equivalent to other instrumental playing captures the plurality of a practice that is distributed across sonic, social and discursive realms. Historical and conceptual precedents for viewing DJing both as an instrument and as an art are explored, and it is suggested that it could also be assessed under the GCSE Art & Design criteria.

1. INTRODUCTION

This article will focus on two workshops that I held in 2022 and 2023 at an East London school[1] with two separate intakes of Year 10 music students.[2] Since 2016, DJing has been an option for students to take as an 'instrument' in the GCSE music performance assessment. These sessions offered a natural experiment for looking at the way DJing is taught at GCSE level in the UK. Despite having a relatively strong music cohort, the school did not offer DJing as an instrument in its GCSE music performance assessment (or indeed teaching of music technology of any kind), neither did the local music hub.[3] These sessions were an opportunity to trial DJing sessions with students, but without the official GCSE framework – an opportunity to shed light on both the practice and the official framework that usually governs it. I was also able to compare different approaches with different intakes of the same year group in the same school, as I employed slightly different approaches in each.

1.1. 'Djing as worldizing'

The workshops were part of a wider practice research project into digital DJ performance. My own creative practice utilises a technique that film sound designer Walter Murch coined 'worldizing' – the re-recording of a film's musical soundtrack playing through speakers on location. The technique afforded Murch a sonic 'depth-of-field' whereby the 'worldized' versions could be blended with the originals to bring the music in and out of focus (Ondaatje and Murch 2008). The process also adds environmental noise to the recording and, as a fan of musique concrète, the 'beautiful complexity' (Bulley 2020) that re-recording gives a piece of music would not have been lost on Murch. I have used worldized versions of popular music captured from various sources (e.g., Bluetooth speakers in my local park during COVID) in my own DJ sets, blending them with the original versions of the tracks. Digital DJ technology affords the playing of mobile phone field recordings, the easy identification and sourcing of the original tracks via the discovery app Shazam, and a set of tactile processes for improvising with these audio materials.

The project has been interesting creatively but has also helped me think through the practice of DJing which is, at its core, the act of playing a piece of studio recorded music into an environment. The environments are, of course, not only sonic but also social, and a recording's meaning can change depending on the social space it is played into (Williams 2021). Brewster and Broughton (2022), who are sceptical of the academic theorisation of DJing, define it as an 'improvised emotional artform' – picking the right piece of music for the right time to take the crowd on a journey in a nightclub. The ability to navigate the nuances of the social environment in which you are

[1]The school has been anonymised to protect the privacy of staff and pupils. It is a non-selective secondary school maintained by the local council. Like the borough itself, the student makeup is socio-economically and ethnically diverse.

[2]Year 10 is the first year of the two-year GCSE assessment phase, also known as Key Stage 4. Students are typically aged 14–15.

[3]Music education hubs are funded by local councils and provide music education services to the borough. The provision of peripatetic music instrument teachers is one of the services.

Organised Sound **00**(00): 1–11 © The Author(s), 2024. Published by Cambridge University Press. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.
doi:10.1017/S1355771824000086

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

playing is, many would argue, the most important skill a DJ can possess.

In addition to the sonic and social perspectives, I have also explored a third possible meaning of 'worldizing' in the context of DJing. This is one that explores the discursive ecologies (Williams 2021) present in the phonographic materiality (Brar 2021) of the recordings themselves. Recorded music participates in, as well as being a document of, global musical conversations that go back to the invention of the phonograph and before (Denning 2015). DJs can highlight and activate these conversations by juxtaposing music both with other pieces of music and with the hyper-local social environment of the playing. This improvisation between content and context is key to the art of DJing.[4]

In the school workshops, as I will explain in more detail later, worldizing-related methodologies were only used as an initial prompt for sound and music collection.[5] I was more interested in seeing what the students did with the technology with minimal guidance, and then comparing the results of the very freeform sessions with the expectations of the GCSE assessment. The worldizing lens, however, provides a way of viewing DJing as uniquely plural practice in which the creativity is distributed (Glăveanu 2014) across sonic, social and discursive realms. Further research into the GCSE Music curriculum also led me to question whether this was the best, or at least only, fit for the practice and whether it could also be explored within GCSE Art & Design.

Before describing and reflecting on the workshops, I will give an overview of both the GCSE Music assessment and the Art & Design.[6] I will also lay out some historical and conceptual precedents of viewing DJing both as a musical instrument and as an art practice.

2. GCSE MUSIC ASSESSMENT

The changes to GCSE assessment in 2016 that added DJing also shifted the weighting of the written exam in determining overall marks from 20% to 40%. This was in line with a general move towards exam-based assessment and away from coursework at the time (Burgess and Thomson 2019). The remaining 60% of the assessment comprises one composition and two performances – one solo and one ensemble. The assessment outcomes are:

AO1: Perform with technical control, expression and interpretation.
AO2: Compose and develop musical ideas with technical control and coherence.
AO3: Demonstrate and apply musical knowledge.
AO4: Use appraising skills to make evaluative and critical judgements about music.

AO1 is assessed via the performance component, AO2 by the composition and the last two via the exam. The exam questions are split across four potential areas of study: Musical Forms and Devices, Music for Ensemble, Film Music, and Popular Music.

All students must complete the exam section that is focused on the Western Classical Tradition (1650–1910). The set pieces given in the sample assessment are Mozart and Bach, in which students are to 'identify the main features of binary, ternary, minuet and trio, rondo, variation and strophic forms'. The students must complete this section and questions based around pieces from one of the other areas of study. In the sample material for the Popular Music area, there are questions on 1970s and 1980s rock music. 'Since You've Been Gone' by Rainbow (1979) is given as a sample. The questions require students to identify compositional techniques via Western musical theory terminology, identify the style and identify the year it was released.

For the composition component, students are asked to create one piece in response to a set brief and another where they devise their own. The set briefs are split across the four potential areas of study; however, a sample for Popular Music was not readily available online. For free composition, the 'brief itself is not assessed, however learners are assessed on their musical response to the brief'. There is an opportunity to contextualise their work in their own brief as they are to 'provide details of the audience or occasion plus additional musical details'.

For the performance component, students are required to record themselves performing two pieces, at least one of which should be with an ensemble. One of the pieces must be a set piece linked to one of the aforementioned areas of study, while one can be an original composition. The music must be in some way notated, although for DJ performances this is described as 'a detailed and accurate lead sheet'. Improvisation 'to a stimulus of their own choice' is allowed. Suggested stimuli are a chord sequence or scale. It is unclear whether more abstract stimuli are acceptable.

[4]I borrow the idea of DJing as an improvisation between content and context from Paul Miller (aka DJ Spooky) who, in conversation with Vijay Iyer, posited that improvisation is potentially a vital tool for navigating the tensions between content and context presented by digital information technologies (Iyer and Miller 2009).

[5]I held other workshops with different age groups, both with adults and younger participants than the Year 10s at this school, where these methodologies were explored more explicitly. However, I wanted to keep the focus of this article on the GCSE age group.

[6]There are four exam boards in England, but I have chosen the WJEC Eduqas guidance as it is the exam board used by the school. While there are differences between the boards in the guidance for assessing DJing, the overall makeup of the assessments remains the same. Citations for all guidance quoted here are WJEC (2015, 2019a, b).

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

The performances are assessed across three sub-criteria: 'accuracy', 'technical control' and 'expression and interpretation'. All performances must demonstrate

> technical control, expression and appropriate interpretation, accuracy of rhythm and pitch, appropriate pace and fluency, effective use of dynamics, stylistic awareness, and empathy (in ensemble playing)

For DJing, technical control is measured across several potential techniques:

> beat matching including pitch-shifting or time stretching, beat mixing, turntablism, use of EQ, use of FX, use of a variety of techniques, e.g. scratching, fading, echo, etc.

It is not clear whether the use of automatic beat sync is allowed or manual beatmatching is required.[7] Guidance to achieve a higher-than-average mark is

> use of four or more tracks within the same genre and with different BPM or use of two or three tracks within different genres; Use of EQ/FX **and** scratching. (Their emphasis)

2.1. GCSE Art assessment

Unlike music, GCSE Art & Design escaped the move towards examination by written assessment. The assignment requires that the student submits a self-directed portfolio (60%) and a response to an externally set brief (40%). The assessment outcomes are:

> AO1: Critical understanding
> AO2: Creative making
> AO3: Reflective recording
> AO4: Personal presentation

The externally set assignment requires that the student responds to a brief or stimulus within a supervised '10 hour sustained focus period'. The briefs are broad and fit into three possible categories: *Theme*, *Visual Assignment* or *Written Brief*. Some example themes given are 'outside', 'fragile forms', 'narrative' and 'emotional'. Visual assignment is a creative response to a series of given images. Examples of the written briefs are 'respond to a journey', 'play with scale' and 'explore dereliction and deterioration'.

The specification states that it

> gives opportunities to follow a course which encourages creativity, sustained investigation, experimentation, design and making as a means of developing technical and expressive skills, extending experience and personal response, as well as developing imagination and critical, reflective thinking.

Students must 'use drawing to support the development process within each chosen area of study'. However, 'students are not required to demonstrate technical mastery of drawing skills unless this is relevant to their area of study'. Rough drawings can be used to document and detail artistic intention and process. These can support or be supported by written statements.

3. DJING: INSTRUMENT OR ART?

As DJs play music, it may seem obvious that its correct place of study is in a music class. However, if we examine DJ practice closely, it complicates this assumption. In this section I have detailed some historical and contemporary precedents for thinking of DJ practice in both frames. This is by no means exhaustive and is provided simply to show a plurality of ways in which turntablism and DJing have or can be been viewed. There have also been claims for the inclusion of DJing in GCSE, and the creation of formal graded music exams in DJing, as a tool for decolonising the curriculum (Muggs 2020). Given that much of what is now referred to as DJ culture is rooted in Black music forms such as reggae, hip hop, house and techno, it is also important to critically examine these claims.

3.1. DJing as an instrument

Drawing on previous work including Broughton and Brewster, Katz, and Pershould, Sophy Smith (2013) lays out a broad history of turntables being used as a compositional device. She quotes commentators discussing the gramophone's place as a musical instrument from as early as 1911, showing it was a live debate even then. She then goes on to detail its use by composers such as Ernst Toch in the 1920s, new music composers John Cage and Pierre Schafer, dub reggae sound systems in Jamaica, New York club DJs such as Francis Grasso, Larry Levan and Walter Gibbons, and hip-hop innovators from the 1970s to the present day. The term 'turntablist' was coined in 1995 by DJ Babu to make a distinction between those who just 'play music' and those who 'manipulate sound and create music' (Gragg 1999 cited in Smith 2013). Smith divides key turntablist techniques into three categories:

> structural techniques, including the breakbeat, general mixing, punchphasing and backspinning; rhythmic

[7]Manual beatmatching is the ability, necessary with vinyl records, to match the tempo and phase of two records by ear using the pitch control. This was commonly viewed as a fundamental skill of vinyl DJing but, while still extremely useful, is not strictly necessary with DDJT due to the automatic beat sync functions of the technology. Whether it is a key skill DJs can possess is still a hotly contested debate. While some view manual beatmatching as a sign of being an authentic DJ, some contemporary DJs view the use of sync either as fundamental to their practice or necessary for certain creative techniques. Some more on this in Ravens (2020) and Attias, Gavanas and Rietveld (2013).

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

> techniques, including scratching and beat-juggling; and melodic techniques, including the creation of melodies via the turntables' bass, tone and pitch controls. (Smith 2013: 153–4)

Mark Butler has defined a set of '*musical* technologies'. These are not the machines themselves but 'principles of design that facilitate the kinds of actions that characterize improvised performance in Electronic Dance Music' (Butler 2014: 44). These principles are defined as 'repeating, cycling, going, grooving, riding, transitioning, and flowing'. There is not enough space here to define these individually, but together they provide a taxonomy for working with pre-defined materials that is more relevant to EDM contexts than hip-hop turntablism.

Smith signposts the release of the Technics 1100 in 1980, and even more significantly its successor, the 1200 MK2 in 1984, as significant developments, as they were the first turntables 'to meet the creative and technical needs of the DJ'. In their 'application as an instrument rather than merely a reproductive device, the Technics turntables would change the shape of music history' (Smith 2013: 113). Published in 2013, developments in digital DJing are broadly viewed as positive by the turntable teams that Smith interviews, who use the technologies to expand the possibilities of their existing skill set via DVS (vinyl records that are imprinted with timecode so that digital files can be controlled with an interface that feels like a turntable). Hip-hop turntablists have incorporated dextrous finger-drumming and hot-cue restructuring into their routines as an extension of more established techniques using DVS.

Electronic dance music (EDM) DJs such as Karizma and James Zabiela employ classic hip-hop turntablist techniques, such as scratching, using Pioneer CDJs (the digital successor to the Technics turntable as the industry standard nightclub tool). More commonly, the CDJ cue button is used as a rhythmical percussion device in combination with pitch manipulation using the slider (e.g., DJ EZ and Lotic).

In 1997, John Carluccio developed a system called Turntable Transcription Method (TTM) for retroactively transcribing famous turntablist scratch routines (Miyakawa 2007). The purpose of this was twofold: it was a pedagogical device, enabling budding turntablists to learn from the work of previous masters; and it was used to gain legitimisation from the wider musical community. Carluccio and his collaborator DJ Raydawn felt that turntablism would never be recognised as the virtuosic musical activity it undoubtedly is until it was notated. This was later echoed by DJ Radar, who composed his own system, based more closely on traditional Western musical notation, with extra articulations and composed a 'turntable concerto'. Although TTM met with some ambivalence by the DJ community at the time, it is still used a teaching tool.

In 2018, an organisation called Future DJs collaborated with the London College of Music Examinations (LCME) to create a formal graded musical instrument examination in DJing in the UK. To achieve the highest mark in the LCME exam, students must demonstrate the ability to scratch at least to an intermediate level, read TTM notation, manual beat-juggle and finger drum using hot cues, that is, there is a strong focus on technical virtuosity (LCME and Future DJs 2020b).

Smith details how turntablist groups work in ensembles for improvised performance and composition. Outside of these hip-hop crews, turntablists Maria Chavez, Mariam Rezaei and Victoria Shen have a turntable trio for example. There are also precedents in the context of rock, jazz and electronic bands, including several I have worked with personally, where both DJs and/or sequencer operators have been employed to introduce scratching or electronic loops and textures.

3.2. DJing as an art

While DJs (generally) play music of various kinds, there are several conceptual precedents for framing DJing as an artform akin to a mixed-media fine art practice. Alongside Cage and Schaeffer, Smith gives equal credit to two primarily visual artists, Lazlo Moholy-Nagy and Christian Marclay as 'major turntable pioneers' in the period between 1930 and 1980. Often viewed as a successor to Marclay, the contemporary turntablist Maria Chavez found the visual art world more accepting of her experimental approaches than the techno scenes where she started her career. She has performed or presented work at art galleries and art institutions globally. It is also worth noting that the Black Obsidian Sound System (B.O.S.S.), a 'community of queer, trans and nonbinary Black and people of colour involved in art, sound and radical activism', were nominated for the Turner Prize in 2021 (B.O.S.S. 2021).[8]

More generally, sonic art is now an established category in the art world, even if there have been many debates around its boundaries and definitions. The term was coined in 1970 and primarily sound-based work has been presented in major galleries for at least

[8]They rejected the nomination, citing the 'extractive and exploitative practices in prize culture, and more widely across the industry—one where Black, brown, working-class, disabled, queer bodies are desirable, quickly dispensable, but never sustainably cared for' (B.O.S.S. 2021). https://docs.google.com/document/d/1l8Cl9Iiyt6hgaumbXP8xdlJojI0nFjriwzF_ynUK_bU/edit#heading=h.1z1kmjmim3dt. (accessed 21 March 2024).

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

20 years (Licht 2009). In 2010, Susan Philipsz won the Turner Prize with a sound piece.

Looking at popular music, musicians and bands with an art school (rather than conservatoire) training were highly influential in the 1960s and 1970s (Frith and Horne 2016), as well as in the post-punk movement of the 1980s (Butt 2022). Simon Reynolds coined the term 'conceptronica' as a comment on the press releases for electronic music in the 2010s, which obviously originated in 'art school or postgraduate academia, and [are] comfortable speckling both their work and their conversation with references to critical theory and philosophy' (Reynolds 2019). There are, of course, many precedents of highly conceptual electronic/dance music from before the 2010s; for example, the activist group Ultra-red, the Mille Plateaux record label and Terre Thaemlitz (DJ Sprinkles) were all active in the 1990s.

The use of pre-recorded media by turntablists has drawn comparisons to the assemblages and collages made by the Futurists and Dadaists (Weissenbrunner 2017). Smith frames all turntable composition as straddling both modernist and postmodern sensibilities. They are modernist in their 'preoccupation with progress, innovation and experimentation' and postmodern due to their 'appropriation and recycling of existing musical texts'. DJ Spooky extends these comparisons, making little distinction between DJing, sampling and remixing in the digital domain (DJ Spooky and Lunenfeld 2004). Referencing the art/activist group the Situationists, he describes it as

> wandering through an indeterminate maze of intentionality can become the totality of the creative act. Selection, detection, defining morphologies, and building structures, that's what make the new art go round. The challenge is to keep striving to create new worlds, new scenarios at almost every moment of thought, to float in an ocean of possibility. (DJ Spooky and Lunenfeld 2004: 31)

Jesse Stewart, using DJ Spooky as a key example, warns against subsuming 'hip-hop under the slippery rubric of postmodernism' as this runs the 'risk of obscuring its origins in the African diaspora and its continuities with earlier Afrological forms[9]. He proposes the term 'Afro-postmodernism' to describe creative works that explore the

> fragmentation, plurality, and intertextuality normally associated with postmodernism, but [locate] these processes within the cultural matrix of the African diaspora. (Stewart 2010: 340)

The highly influential DJ style pioneered by Venus X, Shayne Oliver, at the queer NYC party GHE20G0TH1K exemplifies Afro-postmodernism as Stewart defines it. The style utilises the specific creative affordances of CDJs and involves being extremely fluid with tempo and genre. Beyoncé and Rhianna are juxtaposed with syncopated club music of many forms, field recordings and textural ambience sometimes in purposefully jarring and chaotic ways (Lhooq 2017). Venus X challenges orthodoxies around the necessity for smoothness in DJing saying

> continuity is white power. Continuity is patriarchy ... it meant to disrupt those traditional male perspective and conservative ideas of what nightlife and music are supposed to be. (Venus X in Lhooq 2017)

There are similarities in approach (if not aesthetics) to DJ Spooky's 1990s ILLBient nights and the subsequent SoundLab events setup by Beth Coleman and Howard Goldkrand in New York. These nights sought to mix hip hop with 'electronic, electro-acoustic, and classical sources, as well as ambient and industrial soundscapes' with an aim of critiquing the 'conservatisms of the NYC music scene' of the time (Stewart 2010). While DJ Spooky sometimes refers to himself as a conceptual artist, Venus X and the many DJs influenced by the GHE20G0TH1K style generally frame their work primarily as a musical activity, despite many of them being multidisciplinary artists. It is also true that jazz musicians often incorporate Afro-postmodernist references into the work of others in their improvisations. So why insist on framing these DJs' work as art? First, I do not wish to make a false dichotomy, the answer is certainly 'it's both'. DJing is a boundary practice where creativity is distributed across consumption, curation and creation. However, DDJT's affordances for manipulating pre-recorded texts allows for artists to be playful and agile (Green 2011) across sonic, social and discursive dimensions without anything like the base-level technical skill required to do something similar with a saxophone, for example (on the part of the player or listener). I have no wish to diminish the considerable technical ability of any of the DJs I have mentioned, but if we only consider their technique and not the breadth of the discursive and socio-sonic aspects of their Afro-postmodern sonic collages, we are missing a huge part of the work.

3.3. A challenge to colonisation

In 2020, Joe Muggs wrote an article in *The Guardian* entitled 'DJing Formally Offered at GCSE a Challenge to a "colonised curriculum"' (Muggs 2020). He described the introduction of the DJing GCSE assessment and the development of the Future DJs/LCME graded exam in DJing as being 'welcomed

[9]It is worth noting that scholar and writer Kodwo Eshun believes that the term postmodern is entirely inappropriate when discussing 'remixology' practices in Black electronic dance music due to the detached sense of irony commonly associated with postmodern forms of bricolage. (Eshun in Weheliye: 216)

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

for promoting greater inclusivity'. Their efforts are praised in the article by Dr Monique Charles, DJ Sherelle and youth work practitioners, one of whom stresses the urgency of looking at the formal recognition of the practice through a 'Black Lives Matter lens'. This certainly does need urgent attention; however, it is important to examine exactly what it means to decolonise the music curriculum.

DJ decks are the primary performance tool for many forms of contemporary Black electronic dance music and their inclusion in a music curriculum provides a more direct way for some young people to engage with the music that matters to them. However, Chris Philpott (2022) warns against decolonisation and inclusion discourses that favour 'curriculum as content'. Simply changing the existing curriculum to include a more expansive list of musical genres and technologies runs the risk of reifying this content and absorbing it into the 'white racial frame' (Ewell 2021) of Western music theory via assessment strategies and knowledge production. Philpott argues for an 'emergent curriculum as an antidote to curriculum as content' (2022). This emergent curriculum would centre students' experience and meaning, and learning would emerge from context-specific discussions and interactions. Arguably, it would be important to include music theory and the white racial frame in these discussions so that its relevance could be assessed and critiqued.

This is touched on in *The Guardian* article. Jazz musician Xhosa Cole stresses the importance of learning about the *culture* of Black electronic music, not just techniques and technology. In the LCME exam, the only engagement with genre is via a set of listening exercises where students must identify various dance music genres based on stylistic elements (LCME and Future DJs 2020a). Austin Smart of Future DJs claims that teaching culture is the 'foundation' of their book *How to DJ* (Dent, Smart and Smart, 2021); however, on close examination it has some problematic aspects. It provides some very clear instruction on certain techniques, but its section on dance music genres categorises them by a set of aesthetic/mood descriptors, a sample drum pattern, a list of key tracks, and a single contextual paragraph by an artist in the genre. Techno, for example, is 'powerful, dark and mechanical in mood' and 'often in minor keys'. The contextual paragraph comes from an act called Abstract Man. They describe techno as

> A celebration of the beauty of originality and the power of people unified by shared values and beliefs. In its truest form, it encompasses freedom, unity, openness, and connection. Techno can ground us: finding meaning and calm in the rhythms, strength and stability in the low frequencies and connection to ourselves, our challenges and each other. (Abstract Man in Dent et al. 2021: 124)

There is no mention of techno's Black origins and political significance, and only one of the five tracks listed is by a Black artist. Using the language of wellness, this statement participates in the kind of whitewashing of dance music that King Britt is fighting to counter via his Blacktronika course (King Britt and Rodgers 2022). In a recent interview King Britt stated that

> authentic electronic music all comes from an urgency and struggle as a form of expression. The whole fact that Detroit techno was the soundtrack to the fall of the Berlin Wall, as well as the rebuilding of Detroit, speaks volumes and should be taught in all schools. (King Britt and Rodgers 2022)

In short, if their efforts are to decolonise education via Black electronic dance music, cultural context needs to be engaged with seriously so as not to reduce expansive Black artforms to a set of stylistic or aesthetic descriptors that are narrow to the point of inaccuracy.[10]

The GCSE assessment is not as rigidly focused on technique as the LCME exam. However, the assessment criteria focus on technical ability and harmonic accuracy which, given the rest of the syllabus, we must assume is viewed through a Western classical music theory lens. To use George Lewis' terms (1996), this runs the risk trying to fit genres and practices that are Afrological in design into a Eurological context. Writing on hip-hop education, Hein explains that these terms

> describe musical logics emerging from and historically characteristic of Black and white cultural environments respectively … Hip-hop is embodied, kinetic, and affective, and as such, it demands a more Afrological teaching approach … a postcolonial view entails the recognition that musical value is a form of social capital and is therefore socially contextual. (Hein 2022: 68–9)

However, DJing potentially provides an excellent tool for a more emergent approach to music education. Research by Pete Dale (2017) into DJing in schools describes successfully involving students (in the case of his study, mostly male, white and working class) who were, in some cases, severely disengaged from schooling. He attributes this success to the value placed on their own music, in this case mostly the rave style happy hardcore, which is generally codified as white but had origins in Black dance music forms. The positive effect this kind of validation has on a young person's sense of self-worth is echoed in studies by

[10]The essentialist statements about techno's 'mood' in *How to DJ* (Dent et al. 2021) do not acknowledge the extreme diversity within the genre. Also, the drum pattern sample reifies the assertion that techno drum patterns do not have a snare or clap on the second or fourth beat. This assumption is light-heartedly critiqued in a tweet by techno originators Octave One (@octaveone 2022).

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

Ethan Hein (2022) of hip hop in classrooms in the United States and explorations of popular song lyrics in creative youth work (Howard 2021). Dale (2017) sees this work as endorsing a more child-centred approach to teaching and learning that was common in the 1960s and 1970s, but which schooling has increasingly moved away from since the 1980s. The inclusion of DJing as instrument at GCSE level can certainly support some of this work within the current framework, but there is a risk that a Eurological assessment criteria and rigid canonical exam may continue to alienate young people. While it may help get some disengaged students a pass, they are unable to excel unless they engage with these other parts of the curriculum. I am unsure this provides the kind of validation that Dale and other educators advocated for. A decolonised, child-centred, emergent approach that values the music that young people bring to the classroom, discusses its rich discursive qualities and cultural context, and values it *on its own terms* could have great benefit for all students.

I have detailed the GCSE assessment criteria, some precedents for viewing DJing both as an instrument and an art, and the importance of developing an emergent curriculum. In the rest of the article, I will describe the workshops and reflect on my observations, along with teacher and co-facilitator feedback, in relation to these ideas.

4. SCHOOL WORKSHOPS

Initially, I wanted to carry out a field recording exercise with the young people. However, it proved too complicated to get the required number of field trip permissions to leave the school campus with the students and this aspect had to be re-thought. It was decided that, for the 2022 group, I would come into class a month prior to the workshop, introduce the project and set a task for the students to gather field recordings using their mobile phones in their own time. They were also asked to select some pieces of music in any genre. Students were to send the recording files and music selections via email ahead of time so I could prepare personal playlists on the iPads they were using. In the introductory session there was a discussion around the question 'What is a DJ?' where different types of DJ were discussed, such as club and radio. As we were not going to be playing to a club full of dancing people, it was suggested that we would be making a 'soundscape' out of the tracks and recordings, possibly one that said something about their local area. Scheduling constraints meant I was unable to give an in-person presentation to the second group, so a pre-recorded video was shown in class. In the video version, I suggested we would be making an audio 'collage' using sound and music. I kept the suggestion that the local area could be a source of inspiration. Eventually, the first group sent a mixture of voice notes and lists of musical tracks for me to prepare. The second group only sent tracks, no recordings. This is probably because the first group were set the field recording task as a specific homework, while the second group were told we were working with 'sound and music' and therefore could choose what they sent in.

For the workshops themselves, the music classes were split into two groups of about 14. Each group received one workshop lasting 2.5 hours. Seven iPads were laid out with entry-level Pioneer DDJ200 controllers.[11] The iPads were running Pioneer's free WeDJ software. Headphone splitters were used so two students could use a single station. This removed the possibility of pre-fader headphone-cueing that is commonly used by DJs, but this was not necessary for these initial exploratory sessions. To each session I brought a (different) co-facilitator to help offer guidance and to observe.[12] Consent forms approved by the University of Birmingham had been sent to carers, and verbal consent was also sought from the young people. It was explained that any recordings would be anonymised and stored privately, and that they could refuse to be recorded or withdraw at any time.

I was interested in what the young people would do with the material they had collected and basic knowledge of the controls of the interface. There was no discussion of 'how to DJ'. The concept of beatmatching was briefly explained, but the utility of the automatic sync function was demonstrated for anyone wishing to mix tracks with heavy rhythmical content without clashing. I also explained that there are numerous creative ways of getting from one track to another without beatmatching, especially if the tracks are of significantly different tempos. Basic controller and mixer functions were then explained; for example, cue and play buttons, platters/jog wheels, pitch control, volume faders, EQ and filters. The students were given some time to explore these functions with the two demo tracks that come preloaded with WeDJ. I then went on to demonstrate the rest of the features of the software/controller. This mainly focused on the performance pads. Found on most DJ controllers, these are a set of eight pads that are used for: setting points in the audio file to instantly jump to for restructuring or triggering like a sample; setting instant loops of various sizes; applying a temporary audio effect such as reverb, stutter, or

[11]The equipment was purchased with my personal research funding with some assistance of a seed-funding grant from the music college ICMP.

[12]One was funded by an Arts Council DYCP grant that allowed for workshop mentoring, the other from my personal research funding.

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

flange when the pad is held down; and triggering a preloaded bank of audio samples included with the software.

Out of the 2.5 hours, I spent approximately 30 minutes demonstrating the functions. This was in bite-sized chunks followed by practice time. For a total of approximately 1.5 hours the pairs worked together to get to grips with the basic interface and then build a short (1–3 minute) performance to show to the class at the end. During this time, my co-facilitators and I observed and made suggestions when requested. In the final 30 minutes, each pair plugged their iPads into a set of speakers and performed for 1–4 minutes. The instructions for the performances were very open – simply use two or more tracks/audio files and blend or transition between them. The pairs could perform 'back-to-back' (each member of the pair taking turns to play a track) or simultaneously, manipulating a deck each.

Almost everybody managed to deliver a performance of some kind. One student, who was working on his own due to an uneven number of people in the class, declined to perform. In a small minority of cases, only one of the pair contributed to the performance. A couple of attempts were very truncated due to unexpected technical hitches. Aside from these, every performance demonstrated a transition between tracks and use of the DDJT features. The most common functions employed were the pad FX, EQ and filters. This is not surprising as they provide the most immediate and dramatic sonic transformations. In some cases, the pad work was delivered with rhythmic dexterity and the tonal changes facilitated effective transitions. Some students, unguided, had found the X-Y FX controller on the iPad app's touchscreen interface and added this to their performance. Most blended different genres, sometimes in unusual and interesting ways. In some cases, hot cues were used to restructure tracks. One pair played the intro of one song and then switched the drop of another in the same key. One group used two copies of the same hip-hop instrumental and cut between them, changing the timbral qualities of the version on the second deck each time. Where the students utilised field recordings (not all those who collected them did), fragments of a spoken voices were triggered as samples using the hot-cue functions or they were used structurally – once as a breakdown, the pair then returning to the original track, and the other as an introduction. There were some examples of harmonically matched mixing and some where the sync button had been used to match tempos and blend beats, although this was less common. Some students used the sample pads, specifically the air horn, which has also proved popular with other groups of young people.

Genres represented were diverse: house, hip hop, grime, pop-rock, pop-EDM, R&B, old school rave, Turkish rap, Afropop/Afroswing and dancehall. I was surprised there was no drill as many of the school's teachers tutors had flagged this as a popular genre, although this might have been due to a school rule against the playing of music with explicit lyrical content. Three of the performances used the same syncopated club tracks by Bakongo (UK funky artist Roska's experimental alter-ego) that I had supplied in a playlist of possible DJ tools to use. These were the only tracks used from that folder.

4.1. Feedback

The music teachers commented on how engaged the students were throughout the duration of the workshops. One said that they had never seen them concentrate for so long on anything at any one time. From my observation (and that of the co-facilitators and teachers), the students enjoyed simply having their heads down and getting hands-on with the equipment. They (mostly) worked in pairs constructively and harmoniously. Sometimes it was hard to break them away from what they were doing to show them some more features of the software, much of which they were happy just to explore themselves. Both boys and girls were engaged. One of the co-facilitators commented that the some of the most creative work observed was from the girls. This is important to note because Dale's research observed that it was mainly young boys who were interested in DJing. It would be interesting to see if this gender parity persists when the young people are given an option to *choose* a DJing workshop, rather than the participation being mandatory for the whole music class. The teachers were also encouraged by the relatively low cost of the entry-level controllers,[13] the expense of the equipment being commonly perceived as a barrier (Jenkins 2019).

During the practice time, the students were observed actively experimenting with all kinds of functions of the software, often vigorously hitting the performance pads and operating faders. They were much more reticent when it came to performing in front of the class. A co-facilitator suggested that, while they were experimenting in private, they reverted to a more conservative approach when presenting to their peers. One of the teachers pointed out that this was the first time that the young people had shared their own musical tastes in the class and it was something they could be nervous about. A teacher acknowledged that the DJ session had validated the young people's music tastes, and that this is important and something they

[13]The total cost of an entry level controller and second-hand iPad is around £350–400, which is less than a third of the cost of Pioneer's flagship options.

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

should do more of. The confidence to share something personal could be beneficially nurtured. Having to perform in front of their peers highlighted the context of the classroom and how this relates to their music tastes. Interestingly, when field recordings were used, the recordings were of their peers in the school environment, and it was the voice aspects that were most used. The soundscapes were those of the school itself.

The teachers explained that there were a certain number of young people, who were into contemporary electronic music styles such as drill, who were disengaged from the syllabus. The best fit available was drums or keyboards which were not exciting to them. This, along with more general disengagement from the syllabus, meant students were at risk of failing. It was suggested that switching to DJing might get them through because, quite simply, DJ technology is used for performance in the genres they relate to. It was also suggested that we could run introductory workshops with Year 9 students to see if it encouraged any of them into taking music.

4.2. Reflection

Much of what the students demonstrated in the workshops were, albeit in rudimentary ways, creative techniques that could be used to achieve a decent mark in the GCSE performance assessment once developed and finessed. Without the requirement to manually beatmatch and blend tracks of a similar genre/tempo, many went directly to creative approaches utilising tracks of differing tempos and genres. Pad FX and EQ were commonly used to rhythmically manipulate the tracks, as in some case hot cues and loops were deployed for restructuring and remixing. Field recordings were used in musically interesting ways, either structurally or as a sample trigger. We should remind ourselves the students did all of this in a two-hour session with very little prompting beyond the basic functions of the equipment. This speaks to the tactile and intuitive nature of DDJT and its affordances for creativity with little base-level technical skill. I think it is unlikely the same would have happened with traditional instruments. It is exciting to think what a 20-minute performance would look like if these initial gestures from a two-hour workshop were harnessed and developed over two years. However, the question is what is the best focus for this development?

Given the highly distributed nature of creativity in DJing and plurality of approaches and styles, I would argue that it would be beneficial to work within a framework that values experimentation, context and reflection equally alongside technical skill. The students' musical tastes could be engaged with much more extensively and the sense of valorisation would be much higher if their creative approaches are assessed on their own terms rather than within a framework based on Western music theory. A focus on contextualisation could also enable moves towards a more child-centred, emergent and decolonised approach, rather than simply content-as-curriculum. Truly generative explorations of Afro-postmodernist sound collages could be encouraged. Budding turntablists could still develop extreme technical prowess, other technical approaches could also be equally valued, but the context of these manipulations would be equally as important as the content. This is currently Art & Design, not Music. In theory, the music route would still be available if they preferred, particularly if they wanted to form ensembles with other musicians.

In an art setting, fieldwork of various kinds could be employed to explore the social and discursive aspects of DJing. Projects based on the local area could bring the kind of value that has been attributed to documentary filmmaking in creative youth work (Howard 2021) and explore what the anarchist educator Colin Ward called *Streetwork* (Ward and Fyson 1973), a view of education where the classroom is used to process and discuss the surrounding urban environment. DJ equipment could be used as a tactile device to explore sound manipulation for mixed-media presentations and performances – for example, theatre – similar to the ways in which forward-thinking educators such Gertrud Meyer-Denkmann (Meyer-Denkmann, Paynter and Paynter 1977) and Brian Dennis (1970) explored tape machines in classrooms in the late 1960s and 1970s.

There are obvious benefits to including DJing within GCSE Music as it stands. It provides a space to validate young people's music tastes and a technology that is aligned with the performance of Black electronic music genres. Many DJs would not require significant extra training to deliver the GCSE programme, so more awareness among DJs that school tuition is a possible extra income stream might be beneficial. Future DJs also provide free and low-cost training to tutors via their Virtuoso platform. However, there does need to be the budget to employ tutors. Schools and music hubs are under considerable financial pressure, making it difficult to provide equipment and tutors. More awareness regarding low-cost iPad and controller solutions may help regarding equipment at least. The recent government National Plan for Music (HM Government 2022) has stated that music technology should play an important role in contemporary music education and that music hubs should provide resources and guidance. There is some suggestion of funds being allocated for this, particularly through pilot schemes for disadvantaged students, although there are not details on how this

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

will be distributed. It is likely, however, that external funding bodies, charities or social enterprises will need to be involved to make DJing in schools a widespread reality, art or instrument.

5. CONCLUSION

In theory, the Music assessment could change towards being as open as Art & Design. I would argue this would be of great benefit. The space for contextualisation could be made much broader and allow for a true diversity of musical approaches, not just styles. In practical terms, however, this would require not only a wholesale change to the assessment but to the ideology that is currently guiding it. DJing is such a rich practice that, perhaps similar to writing or filmmaking, it seems a shame to limit it to just one area of study, especially if the schools were to have the equipment. This would have benefits beyond DJing: sound art and avant-garde music practices of all kinds could be explored. It would, of course, require teachers who had some knowledge of and willingness to engage imaginatively with these practices. A friend, whose daughter is currently studying GCSE Art, pointed out that the subject can currently be let down by unimaginative teaching and an over-focus on the drawing component. The teachers at the school I worked with are a testament to the fact that good teaching can also greatly enhance what students are able to achieve in the current music assessment, that is, a restrictive curriculum taught well is probably better than an expansive one taught badly. However, if we are looking for ideals, it would be fascinating to further research the possibilities of adopting a 'DJing as art' approach alongside utilising it in a music instrument context.

Acknowledgements

Many thanks to the music teachers and Year 10 students at the East London school where these workshops were held, co-facilitators Adrian and Elisha and ICMP.

REFERENCES

@octaveone. 2022. Someone Just Told Me 'Techno' Can't Have a Snare on the '2' and '4'. *Twitter*. https://twitter.com/octaveone/status/1580994732322193408 (accessed 2 October 2023).

Attias, B., Gavanas, A. and Rietveld, H. 2013. *DJ Culture in the Mix: Power, Technology, and Social Change in Electronic Dance Music*. New York: Bloomsbury Academic & Professional.

B.O.S.S. 2021. A Public Statement Regarding the 2021 Turner Prize Nominations by Black Obsidian Sound System. https://docs.google.com/document/d/1l8Cl9Iiyt6hgaumbXP8xdlJojI0nFjriwzF_ynUK_bU/edit#heading=h.1z1kmjmim3dt (accessed 21 March 2024).

Brar, D. S. 2021. *Teklife/Ghettoville/Eski: The Sonic Ecologies of Black Music in the Early Twenty-First Century*. London: Goldsmiths Press.

Brewster, B. and Broughton, F. 2022. *Last Night a DJ Saved My Life: The History of the Disc Jockey*. London: White Rabbit.

Bulley, J. 2020. Something in the Air … Sound Artist James Bulley on Britten, Oram and The Sonics! https://theculturevulture.co.uk/cultures/james-bulley-artist-opera-north/ (accessed 21 March 2024).

Burgess, S. and Thomson, D. 2019. *Making the Grade: The Impact of GCSE Reforms on the Attainment Gap between Disadvantaged Pupils and their Peers*. Sutton Trust.

Butler, M. J. 2014. *Playing with Something That Runs: Technology, Improvisation, and Composition in DJ and Laptop Performance*. New York: Oxford University Press.

Butt, G. 2022. *No Machos or Pop Stars: When the Leeds Art Experiment Went Punk*. Durham, NC: Duke University Press.

Dale, P. 2017. *Engaging Students with Music Education: DJ Decks, Urban Music and Child-Centred Learning*. New York: Routledge.

Denning, M. 2015. *Noise Uprising: The Audiopolitics of a World Musical Revolution*. Brooklyn, NY: Verso.

Dennis, B. 1970. *Experimental Music in Schools: Towards a New World of Sound*. Oxford: Oxford University Press.

Dent, T. C., Smart, A. and Smart, S. 2021. *FutureDJs: How to DJ*. London: Faber Music.

DJ Spooky and Lunenfeld, P. 2004. *Rhythm Science*. Cambridge, MA: MIT Press.

Ewell, P. 2021. Music Theory's White Racial Frame. *Music Theory Spectrum* **43**(2). https://doi.org/10.30535/mto.26.2.4.

Frith, S. and Horne, H. 2016. *Art into Pop*. London: Routledge.

Glăveanu, V. P. 2014. *Distributed Creativity: Thinking Outside the Box of the Creative Individual*. Cham: Springer International Publishing.

Green, O. 2011. Agility and Playfulness: Technology and Skill in the Performance Ecosystem. *Organised Sound* 16(2): 134–44.

Hein, E. 2022. Learning Something Deep: Teaching to Learn and Learning to Teach Hip-Hop in New York City. Music and Performing Arts Professions. PhD thesis, New York University. https://doi.org/10.1386/jpme_00070_1

HM Government. 2022. The Power of Music to Change Lives: A National Plan for Music Education. www.gov.uk/government/publications/the-power-of-music-to-change-lives-a-national-plan-for-music-education (accessed 2 October 2023).

Howard, F. 2021. 'It's Like Being Back in GCSE Art' – Engaging with Music, Film-Making and Boardgames. Creative Pedagogies within Youth Work Education. *Education Sciences* **11**(8): 374. https://doi.org/10.3390/educsci11080374.

Iyer, V. and Miller, P. 2009. Improvising Digital Culture: A Conversation. *Critical Studies in Improvisatio /Études critiques en improvisation* **5**(1). https://doi.org/10.21083/csieci.v5i1.1017

Jenkins, D. 2019. Hit the decks to engage music students. *The Times Educational Supplement*. www.tes.com/maga

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press

zine/archived/hit-decks-engage-music-students (accessed 2 October 2023).
King Britt and Rodgers, T. 2022. 'We Cross Examine with Old Sonic DNA': King Britt and Tara Rodgers in Conversation on Blacktronika, Music Technology and Pedagogy. *Organised Sound* **27**(1): 55–8. https://doi.org/10.1017/S1355771822000231.
Lewis, G. E. 1996. Improvised Music after 1950: Afrological and Eurological Perspectives. *Black Music Research Journal* **16**(1): 215–46. https://doi.org/10.2307/1519950.
Lhooq, M. 2017. The Art of Disruption: How CDJs are Changing DJing. *Resident Advisor*. https://ra.co/features/3087 (accessed 2 October 2023).
Licht, A. 2009. Sound Art: Origins, Development and Ambiguities. *Organised Sound* **14**(1): 3–10.
LCME and Future DJs. 2020a. *DJ Handbook: Artist*. London: London College of Music Examinations.
LCME and Future DJs. 2020b. *DJ Syllabus. Qualification specifications for: Debut, Breakthrough and Artist Levels*. London: London College of Music Examinations.
Meyer-Denkmann, G., Paynter, E. and Paynter, J. 1977. *Experiments in Sound New Directions in Musical Education for Young Children Adapted for Use in English Schools*. London: Universal Editions.
Miyakawa, F. M. 2007. Turntablature: Notation, Legitimization, and the Art of the Hip-Hop DJ. *American Music* **25**(1): 81–105.
Muggs, J. 2020. DJing Formally Offered at GCSE: A Challenge to a 'Colonialised Curriculum'. *The Guardian*. www.theguardian.com/music/2020/sep/08/djing-formally-offered-at-gcse-a-challenge-to-a-colonialised-curriculum (accessed 2 October 2023).
Ondaatje, M. and Murch, W. 2008. *The Conversations: Walter Murch and The Art of Editing Film*. London: Bloomsbury.
Philpott, C. 2022. What Does It Mean to Decolonise the School Music Curriculum? *London Review of Education* **20**(1). https://doi.org/10.14324/LRE.20.1.07.
Ravens, C. 2020. A Decade of DJing: How Technology Changed the Art Form. *DJ Mag*. https://djmag.com/longreads/decade-djing-how-technology-changed-art-form (accessed 2 October 2023).
Reynolds, S. 2019. The Rise of Conceptronica. *Pitchfork*, 10 October. https://pitchfork.com/features/article/2010s-rise-of-conceptronica-electronic-music/ (accessed 2 October 2023)
Smith, S. 2013. *The Process of 'Collective Creation' in the Composition of UK Hip-Hop Turntable Team Routines*. London: Routledge.
Stewart, J. 2010. DJ Spooky and the Politics of Afro-Postmodernism. *Black Music Research Journal* **30**(2): 337–62.
Ward, C. and Fyson, A. 1973. *Streetwork: The Exploding School*. London: Routledge and Kegan Paul.
Weheliye, A. G. 2005. *Phonographies: Grooves in sonic Afro-modernity*. Duke University Press.
Weissenbrunner, K. 2017. Experimental Turntablism – Live Performances with Second Hand Technology: Analysis and Methodological Considerations. Unpublished PhD thesis, City, University of London.
Williams, J. 2021. Shazam Walks and Voice Notes: Soundscape, Urbanism, and Sonic Territories. In M. A. Fariman, D. C. Lee and D. A. Hakiminejad (eds.) *City, Public Space and Body*. London: Goldsmiths University.WJEC 2015. *WJEC Eduqas GCSE in Music Sample Assessment Materials.* Cardiff: WJEC.
WJEC 2019a. *WJEC Eduqas GCSE in Art and Design Specification.* Cardiff: WJEC.
WJEC 2019b. *WJEC Eduqas GCSE in Music Specification.* Cardiff: WJEC.

https://doi.org/10.1017/S1355771824000086 Published online by Cambridge University Press