Examiners' Report
Principal Examiner Feedback

Summer 2017

Pearson Edexcel IGCSE
Music Technology (6MT03) Paper 01

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Summer 2017
Publications Code 6MT03_01_1706_ER

6MT03 Examiner's Report 2017

This feedback is provided to centres on this year's submitted coursework, organised as the three tasks, log book and administrative details. The report is intended to provide additional support to centres and guidance on how to improve students' outcomes.

The best work was typified by:

- accurate and mostly complete musical parts
- convincing timbres with evidence of editing and sound shaping using synthesis
- shaping of MIDI performances using velocity, pitch bends, note length editing where appropriate
- processing and effects use to match the original including the creative use of effects present in both pieces
- clean, clear vocal capture, suitable dynamic processing and careful use of EQ which had challenges for both pieces
- balance and pan that reflects the original; placement of vocals in particular can be challenging

Task 3A – Sequenced Integrated Performance

The choices:
How Deep Is Your Love – Calvin Harris & Disciples
Singularity – New Order

About 10 to 15% chose Singularity.
Both pieces offered opportunities to demonstrate the ability to recreate a range of production features, including detailed reverb use, delays, vocoder, pitch shift, modulation FX, guitar FX, autotune.
In both pieces, the main musical parts were relatively straightforward but with detail in the form of subtle variations and additional supporting instrumental and percussion/drum elements that added depth. The vocals did not place unrealistic demands on singers at this level.

How Deep Is Your Love

Pitch

Piano and electric piano combination caused problems; wrong octaves, parts omitted or copied into incorrect sections. Incorrect chords were also common. Vocoder pitching often omitted. Low BVs and quiet male doubling BVs often omitted completely or partially.

Rhythm

Hi hat variations in the different sections were often attempted but many details tended to be missed. Similar with the percussion, the clap and snare parts. The rhythm of the bass part was usually correct; problems often occurred with the syncopated pushes in the electric piano and piano part, and the high syncopated piano vamps.

Timbre

Bass timbre was clearly given significant attention by many candidates, with a reasonable attempt in many cases. The variations in timbre were less often included or successful when attempted. Drums also showed some decent attention, some success with the variety of hi hats, lo-fi and electronic percussion, kick, claps with different pitches, snares. Electric piano and piano seemed to get less attention. The piano in particular is heavily EQ'd in the original. The vocal treatments were addressed under style and creativity.

Balance & Pan

The vocal balance is always a challenging area. Good practice in other areas such as EQ, FX use and dynamic control are essential in achieving a good outcome here. There were not too many submissions with extreme errors in balance, but it is still common to see one or two elements dominating a mix to the detriment of others. Careful referencing of finished mixes on a variety of listening set-ups is always recommended.

Dynamics

The lifts and drops in this piece presented many opportunities to demonstrate control of global dynamics. These were often supported by anticipatory musical elements such as the rising pitched snare roll and delay, changes to the kick drum timbre or filtered synth risers and drops. Many students attempted some of these elements and produced a sense of changing dynamics in line with the original, and some detailed submissions handled this aspect very well.

Articulation

The bass note lengths caused some problems, though a lot of submissions reflected the need for careful attention to the correct shaping to achieve the right feel. Percussion, high hats and snares also needed a lot of shaping and often this was attempted at least in part. Sometimes the handling of electric piano and piano was clumsy.

Style and Creativity

Re-triggered/autotune vocals, detuned backing vocals (where included) and vocoder were generally handled quite well. Vocal reverb often misjudged. Vocal delay supposed to be present throughout, and the long feature delays towards the end often omitted. Pitch shifted snare roll and delay was sometimes omitted, but usually attempted and the best submissions handled this very well. Variations in clap reverb attempted fairly often. While many of the obvious FX are included in the work, there is often a lack of attention to the other more subtle mix effects, displaying a lack of understanding with general mix techniques. It is also clear that many students use reverb and delay by inserting it into a track rather than using send and return. This can make balance between dry and effected level awkward – a change in one produced a perhaps unwanted change in the other – and also results in mono effects in some software.

Singularity

Pitch/Rhythm
Often a lot of correct to nearly correct work, but missing parts - guitar lines and double BVs often omitted. The bass line was sometimes interpreted incorrectly, particularly the running quavers in the verse.
The drum parts including the different cymbal and hi hat patterns were usually attempted, but inaccuracies were common.

Timbre
Some good work on timbres for drums, bass, guitars, showing that students had clearly spent some time on addressing the challenges presented.

Dynamics
Many pieces struggled to maintain and build the energy levels moving from intro, to verse, to chorus and interlude sections; as with the Calvin Harris, the correct combination of parts is essential and missing elements make the effective shifts in dynamics very hard to achieve.

Articulation & Phrasing
The bass line was a point of focus here, as was the guitar part when it was sequenced. Successful candidates also had a well-shaped arp part/synth part in the verse. Detail in drum parts were sometimes given less attention than they deserved; while some parts of the drums and hi hats were deliberately mechanical, there are other parts needing shaping.

Style & Creativity
While it was clear some attempts had been made, and in the best work there was some pleasing successes, effects on Vocals and Drums (reverb in particular) often misjudged – both room size and amount. The resonant synth in the breakdown was created in nearly all cases; some students did this by adding a second synth at the point where the resonance increased, displaying a lack of understanding of automation and synthesis controls.

No fade on some submissions.

Task 3B - Multi-track Recording

Suitable facilities for recording are provided by the majority of centres, and a range of microphones, a recording space and mixing environment are clearly available to students in all but a very few cases. Understanding of the importance of room treatment seems to be increasing.

It is evident that many centres develop close critical listening skills on their courses and pay attention to creating the right listening and work environment.

Choice of material continues to play a big part in the success of the final piece. Candidates who make suitable choices usually have a more realistic goal to work to. Pieces chosen need to be:

- Played to a good standard with control and accuracy
- Use straightforward recording and production techniques

At this level, there are plenty of skills needed in managing a recording of a simple, basic production; pieces with complex music or production are usually beyond the capability of candidates and are not necessary to demonstrate the assessed capabilities and outcomes.

Some centres clearly offer a lot of support in helping students to choose a piece to record, even to the extent of all candidates recording the same piece of music, or one, two or three choices. Whilst this is clearly an option to ensure suitable material is recorded, there are a number of disadvantages:

- Students do not have complete ownership of the project
- Can lead to a 'production line' approach to recording with very similar sounding finished products
- It can be argued that the learning experience is devalued; students do not have to make decisions about what makes a piece suitable and realistic as a recording project, then manage the performers of that particular piece, consider the unique challenges of how to produce the recording and do the final mix

The best work in this category did show some very high quality recordings that would not have been out of place on a band demo. In these cases, all aspects assessed showed considerable good practice in the assessed components.

Strengths and weaknesses demonstrated in this task are listed below:

- Capture if often handled quite well for most instruments
- Difficulties arise with drum overheads; balance and tone of cymbals and hi hats sometimes need more careful consideration. This might be a case of room treatment/positioning of kit in room as well as microphone type, polar pattern and placement
- Vocal parts sometimes lack focus or suffer from drifting on/off mic. The role of producer is quality control, and close listening is needed during recording to ensure cohesive delivery
- Piano, strings and percussion often lack clarity
- Brass, sax, acoustic guitars are usually handled quite well
- EQ can often suffer from problems in the bass end, either lack of bass or uncontrolled and indistinct frequency distribution. This is an area where monitors are essential for making decisions
- Mid range can be congested; log books often indicate large boosts of 10 or 15 db. It is usually better to remove unwanted frequencies than boost desired areas
- Dynamic processing had huge variations, from almost none to extreme squashing and pumping. Compression always depends on the material being processed, and is not a substitute for uncontrolled dynamics in performance. The best work showed up in clear, snappy drum mixes, present vocals, even bass delivery and general cohesion across the mix
- The fashion for extreme compression use appears to be receding slightly, or maybe centres realise this is a difficult technique to do well. More moderate use of compression generally yields better results

- Some students and centres still feel the need to use multiband compression, which almost always has a poor outcome. At this level students are not expected to be able to use a tool that generally requires many years' experience
- Effects use in the best work showed use of perhaps two well-selected and contrasting reverbs, used as send and return on a number of parts in the mix to ensure cohesion. There might also be some subtle delay on some lead parts. In the majority of work, there was little consistent use of reverb across the whole mix, and many students choose an alarmingly high number of individual reverbs on inserts. This has the disadvantage of making balance unpredictable, as changing the wet/dry mix on an insert changes the balance of the dry signal as well as the amount of reverb so the two aspects can never be handled independently
- Balance of instruments and vocals depends a lot on successful capture and processing. Again it is fairly evident where monitors have not been used and headphones have been relied on instead. Listening to finished mixes on a variety of systems, and making adjustments through several mix stages is standard practice and should be planned for in carrying out the task
- Stereo placement is often handled quite well; extreme width can be problematic especially for stereo placements such as drum overheads. Poor balance can lead to pan problems on loud parts. Some mixes still get submitted as mono except for use of stereo reverb.

Acoustic instrument requirements not met:
There are still a surprising number of pieces that do not meet this requirement, including entire centres in some cases. An adjustment is applied to the marks if less than four acoustic instruments are present, reducing the total mark by $1/12^{th}$ for each missing part.

Task 3C – Composing Using Technology

It is encouraging to see more centres understanding the requirement of sound design as an integral part of the compositional process. Some are still pursuing the notion that recording or sequencing a song and adding a filter or a timed delay in a few places constitutes composing using technology. The approach expected is to use a wide range of techniques to create an original and convincing sound palette. A range of synthesis, sample and audio manipulation, and creative effects techniques need to be included to fulfil the requirement of the task. These techniques require development and practice. For example, chopping up a speech to make a rhythm, rap-like delivery can be an excellent approach, but if it is done with little attention to the timing and integration with musical ideas it will always sound like an afterthought. The same applies to matching dynamics, and creating effective balance and EQ when using a range of samples, resulting in material that sounds like it does not belong.

Musical elements as in previous years showed stronger control of structure, texture and in some cases rhythm – where there was some excellent worj in the best submissions – than of harmony and melody. This is understandable

considering the styles generally chosen, which are most appropriate to the task, but there is always an opportunity to include variety and development in all aspects of the musical construction.

Brief 1

Very few submissions took advantage of the opportunities to reflect the electronic sound design equipment shown in the images. Many used samples of President Kennedy's speeches or news reports relating to the assassination. As with brief 2, there was sometimes a lack of development and direction to pieces that were based on static and lifeless soundscapes.

Brief 2

It was quite common for students to misinterpret the requirement to use the text and reflect its meaning. In these cases students chose samples / speeches about war, or sometimes even violence in general such as knife crime, or wrote their own lyrics about war and violence. Often these focused on a different interpretation and missed the central message of the text.

As with previous years, it is often the case with this set text brief that a fairly dull narration is used over a bed of washy synths with a few effects; this approach can be successful but only with extensive editing of vocal part, varied sound design and development of musical ideas to avoid stagnation.

Some thoughtful, interesting exploration of these themes apparent through use of sampled speeches and news items, composed raps and sung elements.

Brief 3

Often there was good practice here in the choice of samples, including students working creatively to create rap-like rhythmic delivery by editing and chopping speech from elsewhere. Notable examples included Fred Dibnah, Michael Sheen and Arthur Scargill. Students also exploited the sounds of industry to good effect in some cases.

Log Books

Many centres now produce an electronic pro forma for candidates to use, which helps make a well presented log book in most cases. Sometimes the questions get muddled up, or sections omitted, which then need to be resubmitted. The majority of centres now seem to understand the need for brief but relevant information in the log books, rather than providing difficult to negotiate reams of large screenshots. It is also useful for students to learn to observe the settings and controls used in their work, and write down the relevant information in a concise way. This has knock-on benefits for their ability to answer technical questions in the written paper.

Where centres are using their own electronic document, it is important to remember to include the full information on front and rear pages for each candidate, and to make sure the log book is submitted as a single document rather than a series of loose sheets.

General Admin

Some problems here, though issues seem to be less frequent.

Signatures of student and teacher are a requirement to authenticate the submission of every candidate, and have to be supplied if omitted from the original.

If methods used are unclear from the log book then requests for further details are sometimes necessary.

CDs are generally managed well, with fewer instances of data CDs, use of unplayable CD-RWs or DVDs. Some centres obviously bounce the final mix to mp3 before burning an audio CD. There is no good reason for this, and the quality will be affected.