Examiners' Report/
Principal Examiner Feedback

Summer 2012

GCE Music Technology 6MT03
Portfolio 2

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General Introduction

This year's work was of a similar standard to that shown in recent series. The integrated sequencing tasks seemed to present the most difficulties to candidates. Recording work continues to show some excellent work at the top end, and generally this task has the best standard of the three. Composing using technology again had a wide range of standards. At the top end centres are exploiting the use of technology in sound design and putting this to good musical use on the context of compositions, but a significant number of submissions still ignore the requirement to get actively involved with creative sound design.

Equipment levels show that centres are making suitable choices in the majority of cases, more than was the case even a few years ago. Recording equipment, sequencing programs and computer based instruments are now mostly of a suitable standard. Where there may be an issue is in the use of studio monitors and a suitable listening environment. Students should be encouraged to check all work on a regular basis using studio monitors rather than headphones and final mixes of all tasks should always be completed on monitors where practical – certainly for recordings.

There are still a number of submissions that use downloaded MIDI files for task 3A and shared audio by different candidates for both tasks 3A and 3B. This is plagiarism and can result in candidates being disqualified from their examinations.

There were a small amount of other instances of non-permitted approaches, such as use of sequenced material in the recording task.

Centres are reminded of their obligations in signing the declaration in the log book, thus stating that the work is carried out in accordance with the specification.

Task 3A: Sequenced Integrated Performance

Headlines

- Missing or incomplete instrumental parts continues to be a problem
- Rhythm was frequently rigid and mechanical; incorrect drum patterns were common
- Musical subtlety and detail often lacking, lack of attention to articulation and dynamics
- Capture of audio varied from very poor to excellent, though the latter was rare
- Integration of audio often had problems in balance, EQ, effects use and dynamics processing

Gary Numan's *Cars* and *Echo Beach* by Martha and the Muffins were this year's choices.

There was a lack of good quality work in this task. Many of the subtleties were not present in students' work, with many basic errors in terms of musical accuracy and in re-creating production techniques.

The majority of work fell into the 'Adequate' or 'Good Holistic' descriptors (refer to mark scheme in Specification document), and displayed several of the weaknesses highlighted above.

Some commonly occurring features, good and bad, are listed below:

Cars

- Mistakes in the main synth riff – there are at least two synths playing this in addition to the bassline, students often only had one, and there are changes at end of the phrase which were most often missed.
- The rhythm of this pattern and the intro melody were often incorrect.
- Drum patterns caused some problems, with errors in the kick being most frequent.
- Variations/rolls were usually attempted with varying success, though they often lacked shaping.
- Velocity shaping of hi-hats was often handled poorly or not attempted at all.
- The tambourine pattern on the bridge seldom had successful use of flange.
- The synth pattern on the bridge often caused problems with pitch, rhythm and articulation.
- Timbre choice was generally fairly good though when parts are missing this affects the timbre mark. Errors often occurred with the main synth riff being represented by distorted guitar, and the intro synth and bridge pedal note synth not having suitable shaping/LFO settings. Most candidates attempted the clap reverb with varying success.
- Bass slides were often attempted and were reasonably successful on the whole.
- Shaping to create suitable articulation of synth and bass lines was often misjudged with errors in note lengths.
- Dynamic variations were often fairly clumsy. Contrasts between verse and bridge were often not well managed.
- Vocal capture was usually handled fairly well and the particular EQ used was attempted by most students, though it often ended up too dull or harsh.
- Vocal compression was often poorly handled, over-compression being the most common problem.
- The balance and blend of the whole mix was rarely handled very well. Vocals were often isolated or dominant, and reverb used was inconsistent across the entire mix.
- Vocals were double-tracked in something less than half of the work; double tracking was often successful and showed care and attention to detail.
- A large number of students also recorded bass guitar. Some chose to record tambourine. Bass was usually the more successful of these two choices.

Echo Beach

- The organ part was often incomplete/inaccurate; detail of the melodic lines above the chords was often missing.
- The flute-synth line was often incorrect in terms of rhythm or pitch, or both. Often it doubled up the organ throughout the phrase instead of just playing correctly at the end of the phrase.
- Articulation and variations in the bass part were often inaccurate. It is a complex part and it is not expected that all the details are 100% accurate, but it should be a close representation.
- Drum fills and crescendos were usually attempted, but few managed to be wholly convincing.
- Missing backing vocals was quite rare; where candidates had used up their track count on other parts they sequenced the BVs though not many candidates chose this approach.
- The sax was usually presented with some attempts at shaping the articulation and dynamics. In only a few cases was this skilled and accurate.
- Dynamic variations across the different sections of the song were often fairly clumsy.
- Velocity shaping on hi-hats, drum fills, bass usually received some attention.
- Bass slides often attempted.
- As with *Cars*, vocal capture was usually reasonably good but suffered from a lack of decent compression and EQ.
- Balance and blend problems were similar to *Cars*.
- Most student recorded guitar as well as the two vocal parts. This was usually fairly successful. Where the guitar was sequenced it was usually unsuccessful as this is a very hard part to recreate using sequencing.

Task 3B: Multi-track Recording

Headlines

- Often the best response of the three tasks
- Some very impressive, high quality recordings are being produced
- Capture of instruments usually handled well
- Mix and production aspects tended to be less well executed than capture
- The tendency for massive over-compression and driving of levels beyond clipping is still all too common
- Some poor choices are being made to accommodate the acoustic instrument/percussion requirements, including modification of the stimulus for no good reason

Choice of song:
Pieces that contained brass sections or rock songs with acoustic guitar, tambourine or shaker, and fairly straightforward production techniques consistently prove to be the best choices. Successful entries chose material that was within the capabilities of the students (or other available musicians) in terms of performance.

Less successful choices included big band recordings with large horn sections that were mostly or entirely recorded in one room. This approach limits the ability to use processing tools to enhance the mix, and depends greatly on the acoustic of the room and interplay between microphones, and how well this is managed on the recording, which is often not that well. Another common approach was to adapt or re-arrange classic rock or pop songs to incorporate percussion – djembe or bongos plus cowbell, tambourine and/or shakers seems to be a popular choice. This creates a number of problems – arrangements using these instruments are often not handled well, the playing is often of a questionable standard, and they become hard to blend and balance in the mix. If they are not in the original, there is a good reason for it.

Some centres still ask large number of candidates to record the same song for Task 3B. There is potential for malpractice from the sharing of audio files if this approach is taken. Furthermore, it should be noted that candidates must plan and execute a recording project of their own devising, making decisions about how to capture the instruments. It appears that in some centres students use exactly the same microphone choice and placements for all recordings, which is not in keeping with the requirements of the task.

Capture

There is continuing evidence that centres are paying more attention to the recording environment, addressing the problems of recording in a classroom without treatment - even a simple duvet behind the vocalist helps. Some centres have obtained acoustic treatment to further control the recording environment. There was good work on backing vocal capture in particular, also acoustic guitars, and less incidence of poor kit capture due to problems with the acoustic environment. Some of the least successful recordings were of strings and pianos, both of which represent challenging tasks.

The use of amp modelling units for electric guitar capture seems to be declining, possibly as centres realise the advantages in capturing the sound of even a modest amp often produces better outcomes.

Noise was more of a problem than it should be using modern digital equipment - usually careless distortion, top and tail of file or extraneous noise on acoustic guitars etc. Low level masters were also assessed in this component, and continue to be a regular problem.

Processing

EQ is one of the areas where there are often several significant misjudgements. The best candidates work showed that they had understood that cutting frequencies is often better than boosting. Many others used extreme settings that showed no real understanding of correct use.

Dynamics processing was also often clumsily handled, with over-compression on bass and drums being common. Vocal compression was usually handled better, with some good work being seen in this area.

Successful compression across the whole mix was unusual, and use of gates very rare. Poorly applied limiting to masters and poor use of multiband compression is still common.

FX was usually limited to reverb use, often with errors in judging amounts or matching ambience across the whole mix. Poorly recorded instruments with excessive ambience is also a problem area. Other FX use was rare, apart from electric guitar.

Mixing

Balance of instruments usually produced a few difficulties in placing at least some of the parts effectively. Problems frequently arose with vocal parts, drums, bass & kick drum, and while some examples of automation to control levels at suitable points were seen, many submissions could have spent more time on this aspect of the work.

There was some impressive work in blends of similar instruments such as backing vocals and horn sections, with percussion being the least successful.

Panning approaches were often sensible, with drum overheads handled well and suitable instruments placed centrally, though a few misjudgements often occurred such as instruments placed too wide in the mix and becoming isolated. Percussion was often handled poorly.

Acoustic Instrument/Microphone count/Track count requirements

Quite a number of entries did not fulfil these requirements, which has a negative impact on the marks awarded. Examiners apply an adjustment based on subtracting $1/12^{th}$ for each missing track or instrument.

Task 3C: Composing Using Music Technology

Headlines

- Some very good work showing understanding of style and development of ideas
- Some entries showed very good ability to be creative with a range of sound design and manipulation techniques and combine it with imaginative, stylistic composition
- It is still common for candidates to ignore the expectation to explore sound design as an element of their work
- Attention to general music production techniques often lacking – severe over-compression, distorted master, crude EQ, poor balance, untidy start and end edits
- Musical elements were often lacking control and development. Simplistic repeated patterns were common

Responses to the briefs

The set text brief and the current affairs brief were attempted by roughly the same number of students. Probably only about 10% chose the moving image brief.

Brief 1: 'Hackers'

Candidates often managed to create quite a few successful atmospheres and moods. The scenes were usually represented with some success. On the whole this brief encouraged the most adventurous approach to compositional techniques, with variety and development in melody, harmony, texture and rhythm usually attempted. Students also managed to incorporate some tech use in these submissions, possibly helped by the contemporary nature of the brief.

Improvements could often have been made in the build up of tension, and use of more development throughout the scenes instead of relying largely on repeated ideas. A few students managed to use motifs to represent the characters, but this idea could have been exploited a lot more.

Brief 2: 'Rainforest'

This saw a number of different approaches – rock band type song with several live parts; rap based vocals, sometimes using the RnB approach of having a sung refrain as contrast; heavily manipulated vocals, often spoken but chopped, glitched, effected to produce new timbres. The first approach saw some stylish work, but usually lacked any tech use so lost marks. The second and third approaches produced some very good work at the top end, with great exploration of the technology and imaginative electronic sound palettes.

Responses using the third approach were most common, and a lot of these had unsuccessful attempts at vocal manipulation and creative fx use, as well as being simplistic musically with little development. Many pieces had a bed of rainforest animals and rain/thunderstorm samples that continued throughout the song, and restricted the development in many areas, not least timbre. Cliché is fine in composition, but over-reliance on any one idea is too frequent and more effort could be spent on development and variations.

Brief 3: 'You're right to protest?'

Many responses to this brief focused on the student protests or the riots that occurred last summer. Some went further afield and back in time, drawing on material from the Tiananmen Square protests, the Arab Spring and the American Civil Rights Movement.

Candidates found a wide variety of quotes from politicians and the public, and in the best work these were cleverly integrated into the composition using a variety of editing and manipulation techniques, producing samples that have strong rhythmic and/or melodic identity despite being derived from speech. It is pleasing to see these kinds of responses, which often exploited technology in many different ways, showing a good appreciation of the approaches expected for this piece of work.

It was probably more common to see some decent integration of quotes without a really strong presentation of points of view, or a scattergun approach where quotes had little relevance to each other.

These responses often used electronic styles which obviously allow for the use of technology in a wide variety of ways. Dubstep was particularly popular. It was rare for candidates to show real command of these approaches, though the best work was very convincing. Often there were a limited number of techniques used, or unsuccessful attempts at sample manipulation, creative fx use and synthesis. Many pieces had simplistic approaches to the music, with a few repeated beats and riffs plus pads or pedal notes and no real development.

A few candidates chose to write a song based around these themes, with the required use of samples, which is an ambitious approach but was successful in some cases.

Poor quality samples from You Tube often made the task difficult, but the best responses worked hard to minimise these problems using EQ and other editing techniques.

Musical elements

It was unusual to see work that displayed a real command of compositional processes, with style, variety and flow. Most pieces depended too much on repetition. Quite a large number of pieces were very basic, and struggled to make sense of the musical conventions of melody, harmony, rhythm.

The use of loops from sequencing software or libraries displays a lack of creative input (particularly for beats) and will not gain credit unless there is further manipulation.

Many students again ignored the time requirement (3 minutes). This is assessed under response to brief, and students failing to meet the time requirement will not be able to access the higher marks here.

A small number of submissions failed to use the minimum number of parts. In these cases an adjustment was applied by subtracting 1/6th of the total mark for each missing part.

Administration

About 10-15% of centres were contacted for either replacement CDs with errors or in wrong formats, or for signatures on logbooks, delaying the marking of students' work. While it is understood by the examining team that CD errors do occur, all CDs should be checked for playback in a standard CD player (not computer CD drive).

A small minority of centres were very careless with the CDs, submitting work that had clearly not been checked where mixes started or stopped halfway through, or vocals were left out of the Integrated Sequence mix. Examiners contacted centres in these cases to request replacements, which it should be noted there is no obligation to do, and usually the correct mix was supplied on the replacement though sometimes the same or a even a more error-prone submission was received.

Some centres work arrived significantly late, and some of the email addresses given by teachers were incorrect, again delaying the communication between examiner and centre. It is appreciated when centres deal with any problems swiftly and efficiently. Replacement items were swift to arrive in the vast majority of cases.

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