The Guide To Composing Music For Video Games

Exploring the art of video game scoring

One of my favourite workshops to run over the years is on the topic of film scoring. Lately I've had an interest in adding video game music composing into my workshop "repertoire" so I've been doing some research into how to break it down and make it work effectively for students. I wanted to have 2-3 video game scoring projects that could be done by students in grades 5 and up.

There are a lot of similarities between film music and video game soundtracks.
In both genres music plays a similar role:

- creates a mood or emotion
- creates a sense of time or place
- represents a character
- preempts what's about to happen

The unique problem faced by video game music composers

There are also a couple of subtle but important differences. In a video game soundtrack, music can directly affect how a player emotionally reacts in a gaming scenario. Think of that time you played a game in which the music grew in intensity: your heart started to beat faster, your palms became sweaty and suddenly your game character died because you couldn't stay calm enough to succeed. I know more than one person that has turned off the sound on a game in order to help them achieve a difficult level!

This is connected to the most important difference between film scoring and video game scoring: the way in which a player reacts in a game has a direct effect on the soundtrack itself. The player's actions determine how long a scene will last, how abruptly a level ends and when the battle will begin. Chance

Thomas - composer of a number of video game soundtracks including DOTA 2 - describes the player as the "director and producer" of the soundtrack.

It was this last aspect that I found most interesting. Film composers compose their soundtrack to the "locked picture" - the final, edited version of the film. They know exactly how long each musical cue needs to be, when the hit points occur and when the action will take place. But in a video game the length of each scene (or level) can vary greatly. One player may move through a section quickly and another may take a long time and changes in gameplay within a level are triggered by the actions of the player. So how does the video game music composer logistically work with this in mind?

Connectable musical "blocks"

I was lucky enough to catch a webinar run by Noteflight which answered this question perfectly: an online masterclass titled Video Game Composers - the Five Critical Skills.

The presenter was the aforementioned Chance Thomas, author of *Composing Music for Games* and he described the approach that many game composers take: they compose a series small "blocks" of music which can vary in length and be connected in any order.

Each musical block has a different function:

- Intro - sets the mood for the gameplay that's about to occur. Also sets the musical palette for the game soundtrack
- Loop - "the workhorse of the gaming industry". A short, repeatable section of music which can be played over and over until the gameplay changes or the character dies (!)
- Transition - connecting music (ie. music that accompanies a cut scene that aims to maintain the player's interest)
- Stinger - music that represents an important event in the game
- Tag - a short ending which signals the conclusion of a level or section

This made a lot of sense to me and I decided it would be easy for students to take this approach when composing their own video game soundtracks. I decided to use the musical loop "connectable block" concept and settled on two projects to start with:

- Compose a Super Mario-style theme using the free online tool [Beepbox](#)
- Compose a more in-depth original Epic Battle Music Theme

Project #1: compose a Super Mario-style theme using the free online tool Beepbox

Early video game music was generated by computer chip and sounded very synthesised. Think Super Mario Bros. There are even a number of composers who use the sampled sounds of computers to create original music - a style known as Chiptune music. A few weeks ago I stumbled on the free online tool [Beepbox](#) which is the perfect resource for students to use to create their own Super Mario-style theme.

Here are a few suggested parameters for the composition:

- Create a 4-bar loop
- Include an A and a B section
- Use at least 3 layers, one of which must be a drum pattern
- You can also limit the notes of the Beepbox grid to a specific scale

Beepbox allows you to do this simply and easily and the result is a super-cool very retro sounding game theme!
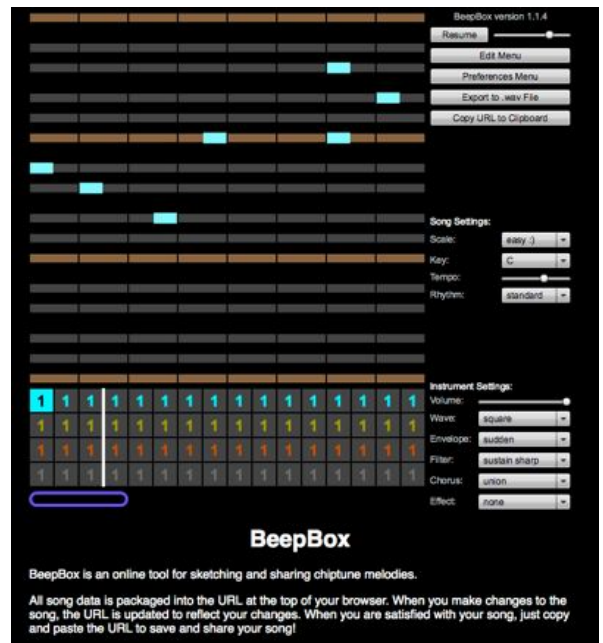

Above: Beepbox

Project #2 compose an Epic Battle Music theme

Chance Thomas talks about the use of a "layered loop" in gaming music: a loop of music that can be played over and over again and that changes or grows in intensity through the clever use of varying orchestration.

Taking this concept, students can create an epic battle theme which is 4 bars in length, but has 3 different versions.

- The first 4-bar version of the theme is gentle and a little mysterious. This would be used say, when the player is walking around, exploring the landscape

- The second 4-bar version of the theme includes a few extra parts to increase the intensity. This part of the theme would be triggered when the player is nearing a bad guy and/or they are approaching a combat situation

- The third 4-bar version of the theme is the most intense and includes all instrumental parts. This version of the theme would accompany the battle itself. It's strong, powerful and fierce

For this more in-depth project, it's best to use multitrack recording software (DAW) such as GarageBand, Mixcraft, Abelton Live, Logic, Pro Tools, Soundation or Soundtrap. I've also done a great version of this on the iPad using the GarageBand app and it would work well in the Music Studio app (Xewton) too. Choose a software program or app that allows students to record their own software instrument parts - at least 8-10 tracks minimum and preferably one that has some orchestral instrument sounds.
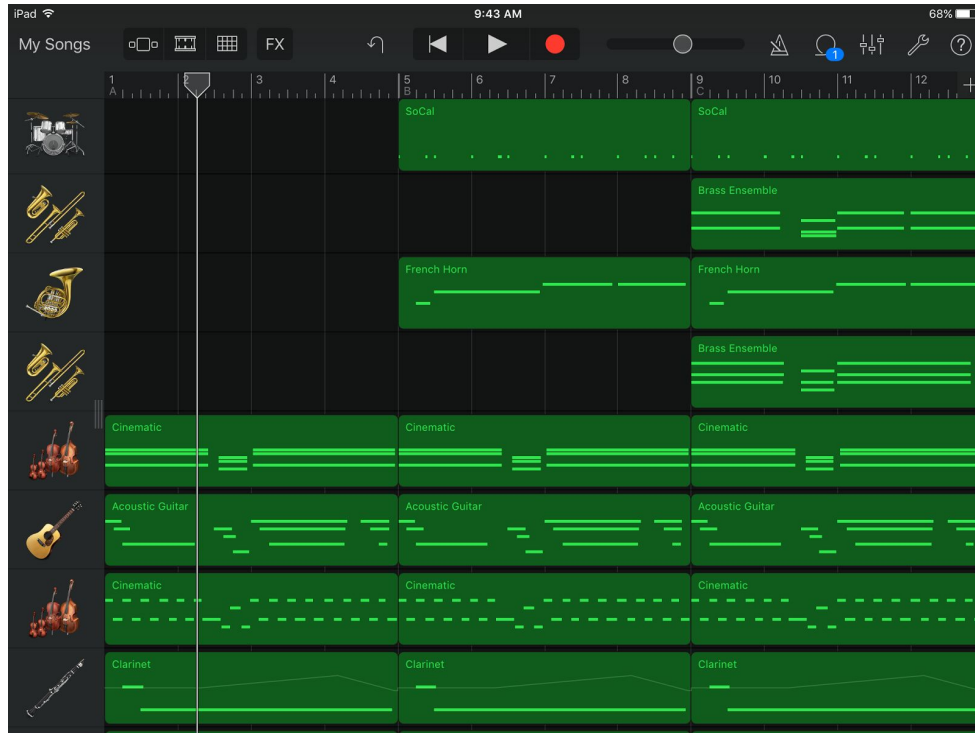
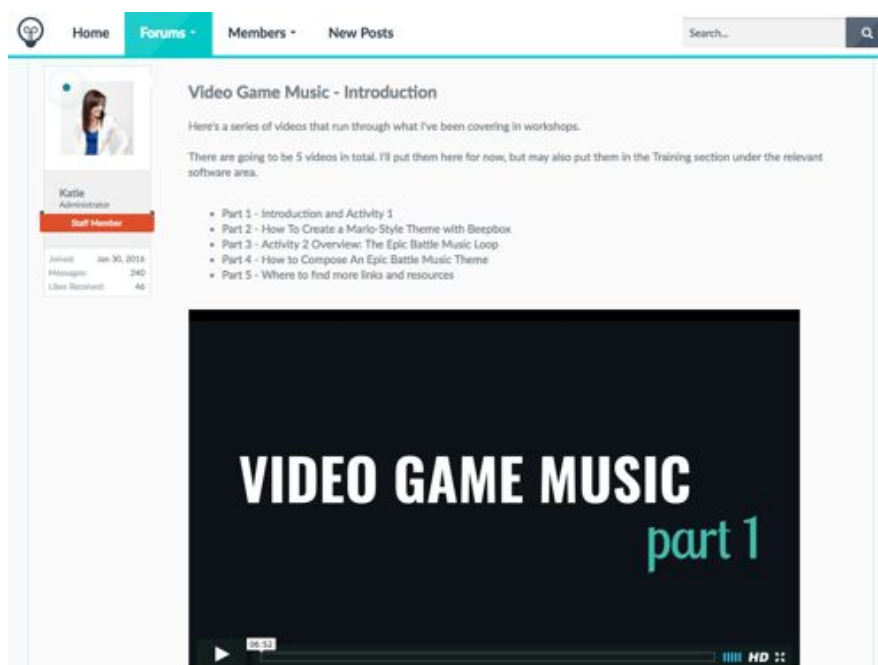*Above: Epic Battle Music theme in GarageBand for iPad*

Next steps for Project 1 and 2: match the music with gameplay footage

After the game music has been composed by students, they can match it up with footage of an actual video game walkthrough ([you can find some here](#)) or with still images from different game scenes. To do that, you'll need to use video editing software, or a music software program that allows you to import video (such as Garageband, Mixcraft, Logic or Pro Tools). On iPad, you can "Share" your GarageBand video game theme straight across to the iMovie app where you can match the music with the game footage or images.

Step-by-step tutorial videos for project #1 and #2

There was quite a bit of interest in this topic inside the [Midnight Music Community](#) - my online professional development community for teachers who want practical tips on how to use technology in music education.

I ended up creating a 5-part video series that covers the background information and walks you through exactly how to do the 2 composition projects mentioned above using a variety of software options including GarageBand, Soundation, Mixcraft and GarageBand on iPad.

The tutorial video for project #1 covers how to get the most out of Beepbox, how to use the settings and how you can extend the project by exporting the finished theme in order for students to add an audio recording of themselves singing or playing.

The video for project #2 reveals my epic battle music "recipe" - the simple way that you can provide students with a framework for composing their own original battle music theme, in the style of Game Of Thrones and other similar themes.

I'll be adding instructions for members of the Midnight Music Community on how to create video game themes in other musical styles like these:

- Mediaeval
- Romantic
- Peaceful and atmospheric
- Car race
- And others!

If you're interested in learning more about this project and seeing the step-by-step tutorial videos for these video game projects (and more), you can become a member of the Midnight Music Community here.

Further reading and other resources

- Webinar: Video Game Scoring Masterclass - from Noteflight
- Composing Music For Games book by Chance Thomas
- Epic Battle Music compilation on Youtube (one of the many!)
- Video Game Music Wikipedia article
- Creative Commons and Public Domain video game footage on the Internet Archive
- I have many other video game resource links on my Pinterest board Video Game Music

Want more? Come and join me in the
MIDNIGHT MUSIC COMMUNITY

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WHAT IS THE MIDNIGHT MUSIC COMMUNITY?

Hello I'm **Katie Wardrobe** (music technology in education specialist) and I've opened the Midnight Music Community: anytime, anywhere, music technology training, lesson ideas, accountability, and hand-holding (for those that want it!) **especially for music educators**.

INSTANT ACCESS TO MORE THAN 12 ONLINE MUSIC TECH COURSES

Not just software how-to! These courses teach you software from an education-specific angle and include student project ideas. Courses include iPads, GarageBand, Mixcraft, Sibelius, Interactive Whiteboards, Pro Tools, Music Tech for Beginners and more.

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Do you have iPads, Chromebooks, Macs or PCs and you're not sure what to do with them? Discover engaging lesson plans, printable guides and checklists you can use straight away with your students - all inside the community

PRIVATE MEMBERS-ONLY FORUM: SHARE IDEAS & SOLUTIONS

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MEMBERS-ONLY TRAINING VIDEOS AND Q&A SESSIONS

New training videos and other resources will be added into the forum regularly. There will also be Q&A sessions especially for members.

About Katie

Hello! I'm Katie Wardrobe – a music technology trainer and consultant with a passion for helping music teachers. I'm a qualified teacher (but no, I don't currently teach in a school) and I run hands-on professional development workshops in Australia and overseas. I have a series of online courses and digital products that help support music teachers and I have presented at more than 50 conferences and other music education events.

My workshops, courses and presentations focus on easy ways to incorporate technology through a range of creative projects into what you are already doing in your music curriculum. I write regularly on my blog and focus on practical ideas and resources that can be used in the classroom or teaching studio.

You can find out more about what I do on the [Midnight Music website](#).