

Heroic music causes accidents and inspiration

Do you ever have a fun fact that sticks in your mind? When I searched for the source of this fun fact, I didn't realise that I had heard it almost two decades ago. In 2004, Britain's RAC Foundation for Motoring named a strident classical piece for the second year in a row as the No. 1 tune not to play while driving, based on research that says shows loud music can cause accidents.

Are you wondering what the piece was? It was Wagner's "Ride of Valkyries".

However, when I read into the numerous news articles that picked up on this fun fact, the choice of music was the same, but its reasons behind why it was the most dangerous differed. Some said it was because the music was too loud, others said it was music that had a fast or increasing tempo, while one thought it was to do with the rising pitch. Ride of Valkyries certainly has all of those, although I believe the increasing tempo is an auditory illusion.

Other pieces they said would increase the likelihood of a car accident were

- "Dies Irae" from Verdi's Requiem "Firestarter" by The Prodigy
- "Red Alert" by Basement Jaxx
- "Insomnia" by Faithless

This fun fact came to mind as I read a recent research study titled "Heroic music stimulates empowering thoughts during mind wandering" led by one of my favourite researchers, Professor Stefan Koelsch. Mind wandering is a cognitive state, you might also know it as daydreaming, when our default mode network takes over. This is the mode where the automated activities we do each day, like driving, is engaged.

This research study found that when 62 participants were presented with an excerpt of heroic or sad music, mind wandering would emerge while listening to both types. But here was the big difference, the thoughts that the participants had while their minds were wandering were very different.

Heroic sounding music evoked more positive, exciting, constructive, and motivating thoughts, while sad sounding music-evoked more calm or demotivating thoughts.

Using music in the classroom

The applications of this research are varied and wide. It seems evident that heroic music may elicit positive, exciting and motivating thoughts in the educational space. Still, the one that was far more interesting was the idea of constructive thoughts.



Listening to heroic-sounding music appears to be an effective strategy to heighten low self-confidence as well as improve constructive thought.

Koelsch, S., Bashevkin, T., Kristensen, J., Tvedt, J., & Jentschke, S. (2019). Heroic music stimulates empowering thoughts during mind-wandering. Scientific reports.

In psychology, constructive thoughts could be defined as the capacity to resolve problems in daily life with little stress resulting.

If I apply this definition to students in my classroom, those with consistent, constructive thoughts would seem to sail through each day, taking every challenge, change or new concept in their stride. Those students who do not experience consistent, constructive thinking may be struggling with their attention span and emotional stability throughout the school day.

The natural question arising from this research's findings is, could we use heroic music to enhance constructive thoughts in both students who experience them regularly and those that may struggle? I could imagine an English class where a creative writing task has been set, starting the lesson with a musically inspired mind-wandering session to both motivate and encourage the constructive thinking process. Similarly, if students are about to undertake a timed assessment event such as an exam or time trial, could some purposeful heroic music and active mind wandering enhance their performance?

Using music as therapy for students

Similarly, it is not only the findings concerning heroic music which are important. The impact sad music has to demotivating thoughts should be considered. "These findings have important implications for the use of music in everyday life to promote health and well-being in both clinical populations and healthy individuals."

The researchers point out that students who have been diagnosed with depression or prone to depressive states may have higher risk factors when they listen to sad music and "may even trigger a relapse in individuals with depression." This is an important issue for teachers and parents to consider as a student who suffers from depression and then removes themselves from social contact through listening to sad music through headphones may be compounding rather than improving their depressive state.

Is mind-wandering ok in school?

Mind wandering can often be labelled as time-wasting or lack of attention. It is easy to see why, on the outside, a student that is mind wandering will look a little vacant and off task.

However, research is finding that mind-wandering is very important for productivity and mental health. Our brains need downtime to effectively save cognitive energy for when we most need it.

Understanding a new piece of information or concepts requires a certain amount of "task-unrelated imagery and thoughts".



"Empowering music has been reported to promote self-confidence, possibly by triggering positive thoughts and appraisals related to aspects of self-confidence"

Koelsch, S., et. al. (2019). Heroic music stimulates empowering thoughts during mind-wandering. Scientific reports.

But with the pressure of assessment, high levels of content and school and parent expectations, it takes a strong and brave teacher to allow time and space for mind wandering.

If you want to or have seen the impact of taking the time to include “teacher-directed mind-wandering” (that sounds like a tautology) then this study might just give you the reasons to take the time to include it.

“There is a strong consensus that mind-wandering can have positive or negative thought content. Importantly, mind-wandering with negative thought content is often associated with negative moods: mind-wandering with negative thought content can cause negative mood, and negative mood can cause mind-wandering with negative thought content.”

Suppose we could integrate the use of heroic music into our teaching practice. In that case, we may gain far more than just motivated students. “Mind-wandering with positive thought content, on the other hand, can have positive effects such as facilitation of creative ideas and problem solving, and lead to mood improvements”.

Just maybe not while they are taking driving lessons!

Read More

Koelsch, S., Bashevkin, T., Kristensen, J., Tvedt, J., & Jentschke, S. (2019). Heroic music stimulates empowering thoughts during mind-wandering. *Scientific reports*, 9(1), 1-10.

Researcher to Follow

Professor Stefan Koelsch University of Bergen, Department of Biological and Medical Psychology, Bergen, Norway



“Heroic-sounding music can be used in everyday life to feel more positive, motivated and courageous.

Sad music, on the other hand, reduced positive mood, and diminished feeling determined and active.”

Koelsch, S., Bashevkin, T., Kristensen, J., Tvedt, J., & Jentschke, S. (2019). Heroic music stimulates empowering thoughts during mind-wandering. *Scientific reports*.

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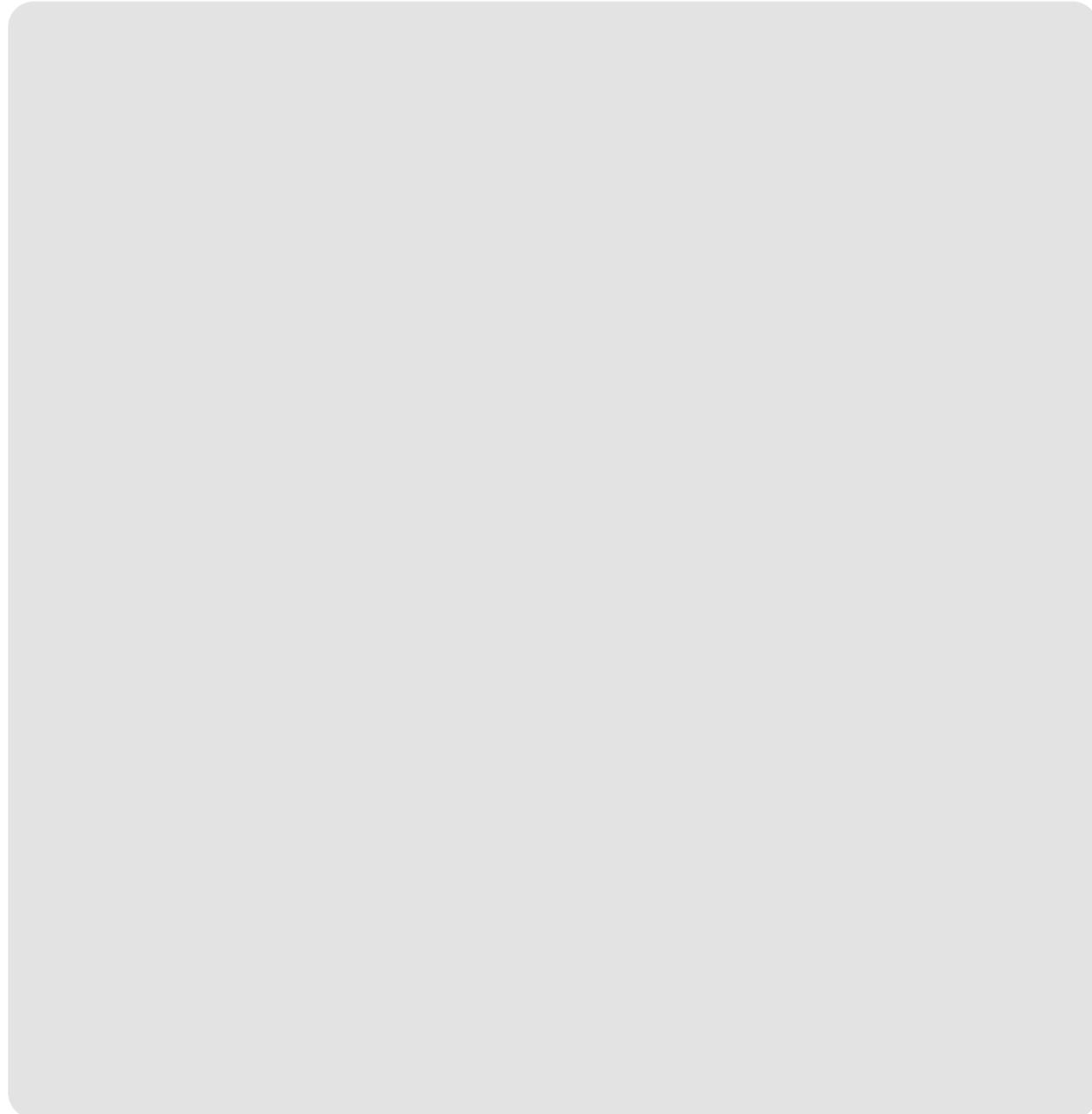
Professional Reflection • Part 1

Personal Brain Buzz

For the purposes of this study they used music they fit into the following categories

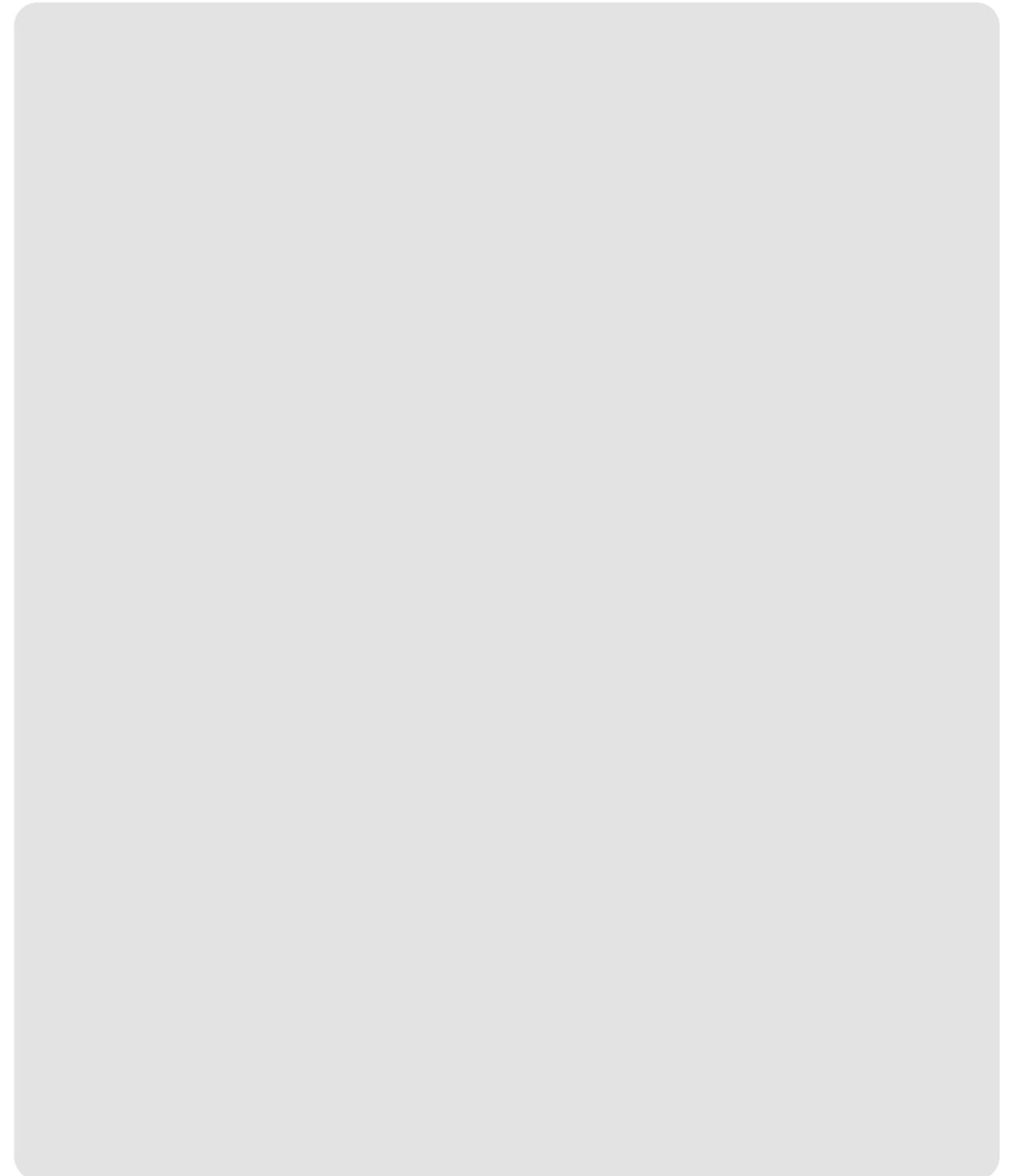
“According to Zentner et. al, empowering music is characterized by vitality, and can have different facets such as sounding energetic, triumphant, fiery, strong and heroic.”

Create your own heroic music list including three classical works and three contemporary works/songs that would fit into this description. Think about which ones would make you drive with greater confidence and maybe experience less fear.



Experiment Time

Compare your list with your colleagues, family members or a friend. Any similar choices and any controversial ones?



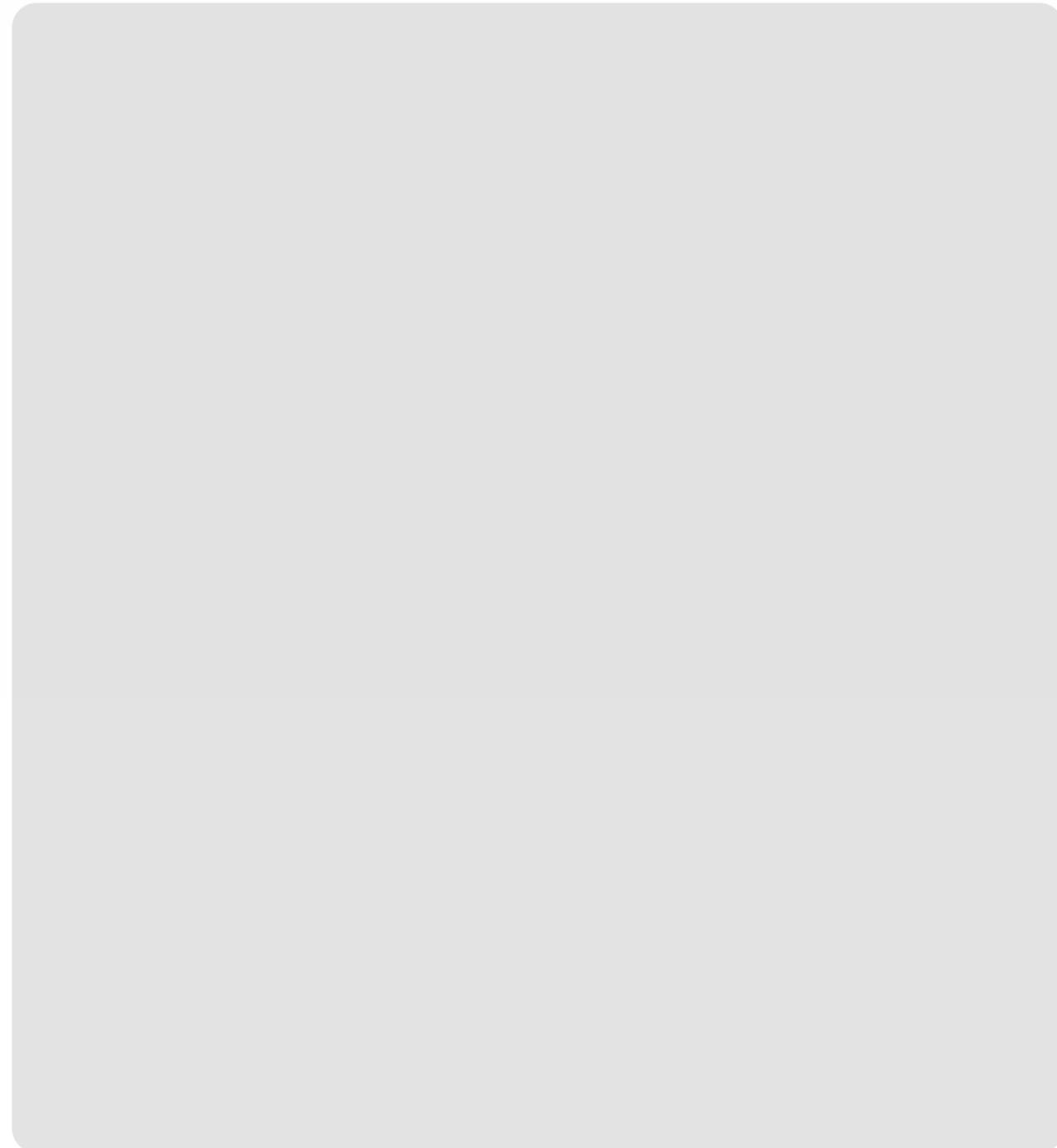
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Professional Reflection • Part 2

Teaching Brain Buzz

Outline two different learning experiences or tasks where you could use a heroic piece to stimulate creativity, motivation, confidence and positivity.

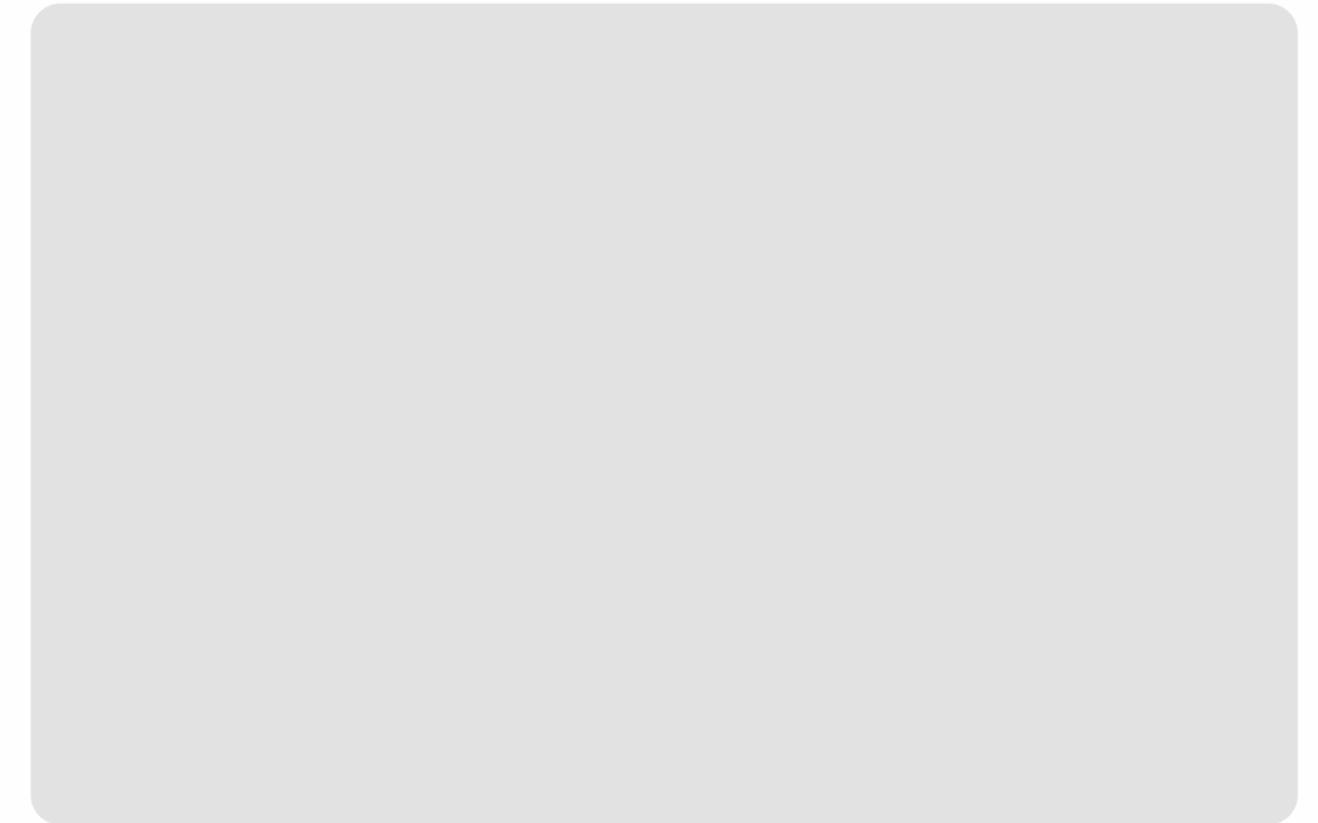
Select the specific piece of music you would use and outline the lesson procedure you would use to introduce the mind wandering experience.



Experiment Time

Select one of your exercises and put it into action with your students. Before delivering the lesson, write three markers of change for your students.

An example could be “Students will write 10% more in the open ended responses than the last practice session on exam responses.”



Questioning Brain Buzz

After completing this professional reflection, write at least two questions you have about this topic.

