

Music education in schools

School resources

Ethnomusicologists have come to conclude that music does something to a person, something not done by anything else in nature or culture Of the many domains of culture, music would perhaps seem to be one of the least necessary; yet we know of no culture that does not have it.

Bruno Nettl¹

A little history and the current key ideas in approaches to music education

Music has often had to struggle for its place in the curriculum in modern times because of its apparent non-essential nature and its association with leisure, pleasure, and entertainment. Interestingly music was one of the first knowledge areas taught in higher education in the West from medieval times (approximately the 6th to the late 15th centuries). Along with arithmetic, astronomy, and geometry, music was part of what was known as *The Quadrivium*, which, along with the subjects of *The Trivium* (grammar, logic, and rhetoric), comprised the first systemised divisions of academic knowledge in modern Western culture. Music at this time, however, comprised the study of harmony and proportion. This mathematical and academic form of music knowledge was well separated from the forms of music played in the everyday world.

At a more practical level, music was significantly intertwined with the formation of the first known schools in Europe. Schools were initially established by the church to ensure the training of proficient choristers. Documented examples include a Schola Cantorum established in Rome around 350 and a school in York in the England in the eighth century². Boys were taught to read Latin, to count, and most importantly to sing. Gradual innovations in music such as notation were eventually taught as well, and here may be found the beginnings of a still existent tension between the theory and practice of music: should the subject of music be about making sounds, understanding how music works, or both?

From early times until well into the twentieth century, music in schools was largely synonymous with singing. With the advent of the phonograph, however, the idea of musical appreciation through focused listening emerged as a powerful force. Taking a more holistic and practical approach, two great music educators also developed systems for the teaching of music around this time - Zoltán Kodály (1882-1967) and Karl Orff (1895-1982). Their approaches comprised active, participatory, and sequenced approaches which involved singing and playing instruments, and included folk music from Europe in addition to the classical canon that traditional programmes usually featured. Both approaches are still widely used in the United States, the United Kingdom, Europe, and, to some degree, New Zealand. These approaches require a certain level of specialised teacher training.

Why include music in the curriculum?

Professor Donald A. Hodges argues that, 'if the purpose of education is to systematically develop the mind and capabilities of every child, it is clear that music has a unique and necessary role to play'³. *The New Zealand Curriculum* justifies music's place in the curriculum first by promoting ideas about the unique affordances of the arts in general: 'Arts education explores, challenges, affirms, and celebrates unique artistic expressions of self, community, and culture'⁴. It goes on to argue that 'Music is a fundamental form of expression, both personal and cultural ... students learn to communicate musically

with increasing sophistication, they lay a foundation for lifelong enjoyment of and participation in music⁵. However, such arguments could, on the whole, be made for other subjects as well. What is it that might be unique about music and provide a firm argument for its inclusion in the curriculum?

There is no doubt that music is ubiquitous as a means of enriching and making cultural practices special. As well as having significant social functions, music offers unique affordances for individual development. Music as a form of human knowledge has its own unique structures, practices, and modes of engagement. The music education philosopher Wayne Bowman suggests that music is unique because of its 'location at the nexus of body and mind, of individual and social, of action and understanding'⁶. In this regard, music, when well taught, can be a potent tool in the formation of individual and social identity, cognitive and emotional development, and the passing on of cultural knowledge. Moreover, recent research suggests that all students have the potential and ability to develop musical intelligence and find personal relevance through involvement with music. The idea of natural talent is less influential: musicality can be taught⁷.

Recent research drawing on genetics, psychology, and neuroscience also suggests there is a biological basis for the human capacity for music. These scholars argue that, while music is both ubiquitous and varied, its basis may be found in certain cognitive structures interrelated with human behaviours linked to natural selection⁸. In other words, music may be in our genes⁹. For example, humans appear to have a propensity towards beat and rhythm and an interest in the characteristics and effects of sounds. We respond before and after birth to the timbre and pitch of our mother's voice and to her responses to music.

It seems, therefore, that there is a strong argument for giving all students the opportunity to develop their musical selves along with the usual emphasis on language, maths, science, and physical education. Ensuring that music is offered as a meaningful subject (not just an occasional experience) aligns with current philosophies of education which argue that education should enable students to realise their particular strengths and interests. It could be argued that schools have an ethical responsibility to provide musical experiences that may ignite a particular interest in music, just as it does for other learning areas. Welch argues that, 'if musical behaviour is integral to human design, it should be equally integral to any educational system that attempts to educate the whole person'¹⁰.

Nevertheless, there still exists a certain mystery about music and how it actually achieves its emotional and spiritual work on us. The ancient Greeks regarded music as possessing certain powers: for example, Plato ruled out the use of many music modes (scales) for educational use because of their likely negative effects on the young such as stirring up inappropriate emotions, an ancient version of the argument often used against certain forms of rock music in the 1950s and 60s. The music scholar and sociologist Tiera DeNora has more recently suggested that 'music has power, or so many people believe. Across culture and time, it has been linked with persuasion, healing, corruption, and many other transformational matters. The idea behind these linkages is that music acts – on consciousness, the body, the emotions'¹¹. This alone might signify why music should be included in the curriculum. Moreover, music and technology have become increasingly intertwined and, as a result, music is more widely and easily available than ever before. This ubiquity has opened new ways for music to exert a positive influence in the lives of many people: for example, the use of sequencing software like Garageband can contribute to emotional wellbeing and to a sense of identity¹².

If we accept the unique nature of musical experience within human cultures and the biological basis for it, then it is important that the available musical 'hardware' in the brain is activated at a time when it is most advantageous. From a neurobiological point of view, the early years of childhood are a crucial time for activating the development of the synaptic connections in the brain¹³. The early development

of awareness of beat, time, and movement in the early years will ideally continue with gradually more sophisticated encounters with music's various and varied elements (see [An introduction to music in the primary school curriculum for non-specialist teachers](#)).

Music transfer effects

There has been quite a lot of publicity in recent years about what is termed music's 'transfer effects' – the positive effects musical development can have on cognitive skills and academic achievement, in particular links with literacy and mathematics. These effects are often used to advocate for music's place in the curriculum, although a recent meta-analysis of earlier studies has found no basis for these claims¹⁴. There is correlation of transfer effects from music to other domains of knowledge, but not proof of causation. This does not mean that types of soft skills cannot transfer from music to other domains as, in the case of instrumental tuition for example, skills such as perseverance, concentration, fine motor skills, learning complex visual patterns, and aural acuity are developed. Similarly, in ensemble music-making, prosocial skills¹⁵ and self-esteem may be particularly enhanced.

Cognitive skills such as working memory, cognitive control, and cognitive flexibility are important predictors of academic achievement, and learning to play an instrument (which is different from classroom music) engages these [executive functions](#). It has been suggested that it is not impossible for such skills to generalise to non-music contexts¹⁶. We also know from cognitive neuroscience that new experiences in children's environments can change the wiring of the brain and that music has extremely powerful effects at the neural level. Music activates many different areas of the brain, and the brain structure of musicians have consistently been found to be different from the brains of non-musicians. In particular, the differences mean that musicians may have enhanced motor, auditory, and visual-spatial brain regions¹⁷.

General music education and specialist music education: what is the difference?

There is some debate about the need for any differentiation between generalist music education and a specialist one. Some researchers argue that music education should focus on performance skills¹⁸ and others regard listening as the key focus, at least for a general music education¹⁹. For example, one theorist argues that most people in the world listen to music rather than perform it, and music education should focus, therefore, on 'developing intelligent and informed listeners'²⁰. A central idea is that music education begins with musical experiences of various sorts, such as singing, listening, composing, and playing, and then that experience is conceptualised to deepen understanding and to lay the foundation for more specialised tasks and activities.

In some ways, music at primary school could be regarded as having a general purpose, introducing all students to some of the key experiences and concepts associated with music, while what might be regarded as specialisation is offered generally from Year 10 onwards in secondary school. Nevertheless, there can be localised exceptions to this generalisation, where some schools, particularly at the intermediate level, have specialist teachers employed to run programmes designed to provide more in-depth experiences with music making, such as band or choral programmes. These co-curricular programmes do not necessarily have the wider educational underpinning that a specialist classroom programme is likely to have, in which students may experience focused listening and composition, and delve more deeply into how music actually works through the introduction of conceptual knowledge. Some students attend schools with both rich and specialised cocurricular and classroom programmes, but this is not the norm in New Zealand, at least in part due to lack of teachers with the confidence to teach it²¹.

What should music education in schools cover?

Music education can be realised in varied ways at school. As a subject, music needs to be an active and creative undertaking, underpinned by the concept of becoming musically literate. The *New Zealand Curriculum* suggests that students should have sequential music experiences guided by four strands:

- Understanding music in context (students come to understand that music always emerges from socio-cultural contexts)
- Developing practical knowledge (students sing, play, improvise, compose, and arrange)
- Developing ideas (composing, arranging, improvising)
- Communicating and interpreting (singing, playing, improvising, arranging).

The NZC expects that students will develop literacies in music (which does not necessarily mean reading music), and fluency with ‘thinking in sound’ through creating, interpreting, and representing music.

In the early years of schooling, students can be introduced to some of the key concepts used to understand how music works such as pitch, beat, rhythm, and dynamics – often called [the elements of music](#) – through singing and through movement to music of various styles. Music’s use and form in varied cultural contexts can also be explored utilising students’ own cultural knowledge and experiences. One way to explore many of these aspects of music education is through movie music. What is interesting about movie music is the way in which it signals to us what we should be experiencing emotionally, thus making obvious the connection between music and emotions (see [this](#) video, for example, where different sound tracks change the affect or emotion of the scene). Movie music also tends to use the wide expressive potential of a western symphony orchestra to achieve these ends rather than popular music, although often the two are juxtaposed. For example, classical style music without words is usually used at the emotional highpoint of a story line. There is great potential in the upper years of primary school, intermediate, or Year 9 for the exploration of music’s use in this context using movies students may know, taking small segments of movies for students to (re)compose soundtrack segments using technologies such as Garageband or acoustic instruments. Music concepts such as timbre, dynamics, melody, and harmony can be explored to create various musical-emotional effects.

Glossary

Articulation: determines how a sound is attacked or sounded

Dynamics: how (relatively) loudly or softly music is played

Graphic notation: the representation of sounds and their colours and form through graphic means rather than using traditional notes on a staff

Musicianship: musical intelligence, or the ability to engage with and respond to music

Pitch: how (relatively) high or low a note is

Staff: the set of five horizontal lines used in typical Western musical notation

Timbre: the tone colour or quality of a sound

Useful resources

Ministry of Education. *Into Music* series Volume 1 (2001), Volume 2 (2002), and Volume 3 (2003).

Ministry of Education. Music education: standard two to form two: a handbook for teachers

Regelski, T. (2004). Teaching general music in grades 4-8: A musicianship approach. Oxford University Press.

Endnotes

- 1 Nettl, B. (2005). *The Study of Ethnomusicology: Thirty-one Issues and Concepts*. Urbana & Chicago: The University of Chicago Press, p. 131.
- 2 Rainbow, B. (2006). *Music in Educational Thought and Practice*. The Boydell Press.
- 3 Hodges, D. (2005). Why study music? *International Journal of Music Education*, 23(2), 111-116, p. 111.
- 4 Ministry of Education (2007). *The New Zealand Curriculum*. Wellington: Learning Media, p. 20.
- 5 Ministry of Education, 2007, p. 21.
- 6 Bowman, W. (2005). To what question(s) is music education advocacy the answer? *International Journal of Music Education*, 23(2), 125-129, p. 127.
- 7 Swanwick, K. (1999). *Teaching music musically*. London & New York: Routledge.
- 8 Geary, D. (2002) Principles of evolutionary educational psychology, *Learning and Individual Differences*, 12, 317–345;
- Morley, I. (2014). A multi-disciplinary approach to the origins of music: perspectives from anthropology, archaeology, cognition and behaviour. *Journal of Anthropological Sciences*, 92, 147-177;
- Peretz, I. (2006). The nature of music from a biological perspective. *Cognition* 100, 1-32;
- Jackendoff, R. & Lerdahl, F. (2006). The capacity for music: what is it, and what is special about it? *Cognition* 100, 33-72.
- 9 Peretz, 2006.
- 10 Welch, G. (2005). We are musical. *International Journal of Music Education*, 23(2), 117-120, p. 118.
- 11 DeNora, T. (2003). *After Adorno: Rethinking Music Sociology*. Cambridge University Press, p. 1.
- 12 Finney, J. (2007). Music education as identity project in a world of electronic desires. In J. Finney & P. Burnard (Eds.), *Music education with digital technology* (pp. 9-20). London: Continuum.
- 13 Gruhn, W. (2005). Children need music. *International Journal of Music Education*, 23(2), 99-101.
- 14 Sala, G., & Gobet, F. (2020). Cognitive and academic benefits of music training with children: A multilevel meta-analysis. *Memory & Cognition*, 48, 1429–1441. <https://doi.org/10.3758/s13421-020-01060-2>
- 15 'Prosocial behaviour includes a wide range of actions such as helping, sharing, comforting, and cooperating. The term itself originated during the 1970s and was introduced by social scientists as an antonym for the term antisocial behaviour'. Cherry, K. (2020). *The Basics of Prosocial Behavior*. <https://www.verywellmind.com/what-is-prosocial-behavior-2795479#>.

- 16 Sala & Gobet, 2020.
- 17 Hargreaves, D., & Lamont, A. (2017). *The Psychology of Musical Development*. Cambridge: Cambridge University Press. 2017, p. 48.
- 18 Elliott, D. (1995). *Music Matters*. Oxford University Press.
- 19 Reimer, B. (1989). *A Philosophy of Music Education*. Prentice-Hall. (originally published in 1970); Walker, R. (2005). A worthy function for music in education. *International Journal of Music Education*, 23(2), 135-138.
- 20 Walker, 2005, p. 135.
- 21 Trinick, R., & Joseph, D. (2017). Challenging constraints or constraining challenges: Initial teacher primary music education across the Tasman. *New Zealand Journal of Teachers' Work*, 14(1), 50-68. <https://doi.org/10.24135/teacherswork.v14i1.103>
- Webb, L. (2016). Music in beginning teacher classrooms: A mismatch between policy, philosophy, and practice. *International Journal of Education & the Arts*, 17(12), 1-14. <http://www.ijea.org/v17n12/>

PREPARED FOR THE EDUCATION HUB BY

Dr Graham McPhail

Dr Graham McPhail is a senior lecturer in the Faculty of Education and Social Work at the University of Auckland. He took up this position in 2015 after twenty years of work in the secondary education sector. His research is centred on the role of knowledge in the curriculum, in particular within C21 schooling and music education contexts. He was lead editor for New Zealand's first volume on secondary school music education *Educational Change and the Secondary School Music Curriculum in Aotearoa New Zealand* published by Routledge in 2018. Graham has published widely, with over 50 outputs in a wide range of journals, books, and CDS both in New Zealand and internationally.