

Inquiry into the extent, benefits and potential of music  
education in Victorian schools

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I am writing this submission based on my experiences as an educator in Victorian Government schools for more than 30 years. For the past 5 years I have been the Principal of Canterbury Girls' Secondary College and the experiences in this role inform part of my submission. I am making the submission in my individual capacity. The submission reflects my private views and not necessarily the views of either the College or the Department of Education and Early Childhood Development.

## **The benefits of studying music**

The research regarding the relationship between music and students outcomes – academic and social – is quite extensive. For the purposes of this submission, I have selected only a few examples to highlight the positive outcomes when students study music and play a musical instrument. (See Appendix A)

## **Current provision of music education in Victoria**

In government secondary schools such as Canterbury Girls' Secondary College currently, music provision occurs in two ways.

### *Classroom music programs*

First, students generally undertake classroom music usually in junior classes before it becomes an elective in middle and senior years. Schools are responsible for the funding of classroom teachers through the student resource package (SRP).

### *Instrumental music programs*

Secondly, students can also elect to participate in instrumental music programs. In these programs, students learn an instrument individually or in small groups and come out of mainstream classes to do so. In addition, these students participate in bands and/or ensembles. Parents contribute financially to the program through a music levy decided by School Council. The Department of Education and Early Childhood (DEECD) allocates an amount to each student through a formula which takes into account the number of students in the instrumental music program. There is a proviso that these students must participate in a band or ensemble in order for the school to be eligible for the DEECD funding.

The DEECD allocated funding is very important in supplementing the SRP allocation and enables schools to offer a wide instrumental music program. It would be detrimental to music programs if the funding was withdrawn or decreased further as the funding provides an addition to the SRP to ensure that students have access to the learning of an instrument. The allocation of funds is undertaken currently by regional offices. There seems to be differences between the way in which funds are allocated across regions and the lack of consistency is an issue. In addition, the model used to allocate the funding is not published and schools do not know what the total pool is and how the funds per school are arrived at. It would be very useful to see the model each year, and for the final figures for each school to be released. Unfortunately, there is a decreasing amount of funds available for instrumental music programs and some schools have had a decrease in their funding allocation for 2013 although

it is unclear if there has been an overall reduction in the total funding across Victoria. This interferes with the ability of schools to adequately fund the instrumental music programs and has had a detrimental impact on the employment of music teachers.

### ***Teachers***

There is a significant issue for schools and music teachers as a result of the way they are employed within the Department of Education and Early Childhood. Music teachers are employed by schools in a number of ways.

First, some teachers are classroom music teachers and do not teach within the instrumental music program (although they may direct a band or ensemble).

Second, some teachers only teach within the instrumental music program and usually also direct a band or ensemble.

Third, some teachers teach within the instrumental music program and within the classroom program.

Many government music teachers teach across a number of government schools, some as many as three schools ie 2 days a week in one school, one day a week in another school etc. They are allocated a base school. A number of years ago, the regional offices were responsible for allocating instrumental music teachers to schools and all such teachers were based in the regional offices before being “distributed” to individual schools. Then a decision was made that this allocation would be replaced by one where teachers would be allocated to schools with each teacher having a base school. This has resulted in issues for teachers and principals. While each school is responsible for the salary for the time the teacher works in their school, the base school is responsible for other aspects such as leave. This is all fine until there is a problem. If a school decides that they no longer have a need for a particular teacher, the base school is informed and the teacher returns to the base school who then becomes responsible for the salary and, through no fault of their own, suddenly has an extra budget cost that was not anticipated. For example, School A is the base school. A teacher teaches at School A two days a week and teaches at School B two days a week. Due to a decrease in funding, School B decides it no longer has a need for the teacher so that principal informs the principal of School A who suddenly has to find an extra 0.4 in salary. In addition, this means that the teacher is excess to the needs of School A so the principal has to work through an excess management process. Given that a school cannot declare a part of a teacher’s time fraction in excess, the teacher finds themselves in excess even though School A still has a need for the teacher for two days a week. This issue and the responsibilities of schools and the rights of the teacher are poorly understood both within the region and by schools and teachers. There is no clear document which outlines these matters. The DEECD document *Management of Excess Teaching Service* assumes that teachers only work in one school. A possible alternative is that School B should be able to declare the teacher in excess and that the teacher remains with that school until they are able to be referred into another position. This would mean that the base school notion would need to be re-considered and a

better arrangement found that recognises that music teachers usually work across a number of schools.

The other issue that arises as a result of the base school idea relates to converting music teachers to ongoing in a particular school. Eg a teacher is ongoing with DEECD and works 3 days a week in School A and two days a week in School B. The base school could be either School A or B or it could actually be a school where the teacher does not currently teach. The position in School A is a 12 month contract to which the teacher was appointed through a merit process by being appointed to a position which was advertised on recruitment on line. The position in School A can be rolled into another contract but currently the teacher cannot be made ongoing at School A as they are already ongoing in DEECD. The only way they can be made ongoing at School A is if the school advertises an ongoing position and they are the successful applicant. It would be much more logical if the music teacher could be made ongoing at the school if they have successfully been appointed through a merit process. In this way the school is able to retain the teacher which they would like to do, and the teacher is able to be secure in their workplace. While schools can always advertise the position as ongoing in the first instance, this is not always possible especially if it is a new instrument and the school is trying to build up numbers before committing to an ongoing position.

The music programs in government schools enable many students to have access to the experiences of learning an instrument and participating in bands or ensembles and are to be encouraged and facilitated.

### **Suggestions for the future optimum provision of music education in Victorian schools**

1. The publication of the funding model each year for the allocation of instrumental music funding, including the final amount allocated to each school
2. The allocation of instrumental music funds to be moved from regional offices to a more centralised body which distributes the funds state wide
3. There should be no decrease in the funding currently available – indeed an increase would provide further impetus to music programs given that such programs have clearly identified positive outcomes in e=terms of student learning
4. The development of a document which clearly outlines the management process including the excess management process for music teachers who work across schools
5. The base school process for teachers needs to be re-worked to take into account the unique situation of music teachers
6. Music teachers who have a contract position in a school and are ongoing with DEECD should be able to be made ongoing in that school if they have been appointed through a merit process

## Appendix A

### Research findings 1

Neuroscience research has shown that music training leads to changes throughout the auditory system that prime musicians for listening challenges beyond music processing. This effect of music training suggests that, akin to physical exercise and its impact on body fitness, music is a resource that tones the brain for auditory fitness. Therefore, the role of music in shaping individual development deserves consideration.

Nina Kraus & Bharath Chandrasekaran, (2010) *Nature Reviews Neuroscience* 11, 599-605

What's more, children who have had music lessons tend to have a larger vocabulary and better reading ability than youngsters who haven't had any musical training. And children with learning disabilities, who often have a hard time focusing when there's a lot of background noise, may be especially helped by music lessons. "Music training seems to strengthen the same neural processes that often are deficient in individuals with developmental dyslexia or who have difficulty hearing speech in noise," Dr. Kraus stated.

The Northwestern researchers concluded their findings make a case for including music in school curriculums. "The effect of music training suggests that, akin to physical exercise and its impact on body fitness, music is a resource that tones the brain for auditory fitness and thus requires society to re-examine the role of music in shaping individual development," they wrote.

[http://www.naturalnews.com/029324\\_music\\_brain.html](http://www.naturalnews.com/029324_music_brain.html)

### Research findings 2

A Harvard-based study has found that children who study a musical instrument for at least three years outperform children with no instrumental training—not only in tests of auditory discrimination and finger dexterity (skills honed by the study of a musical instrument), but also on tests measuring verbal ability and visual pattern completion (skills not normally associated with music). The study, published October 29 2008 in the online, open-access journal PLoS ONE, was led by Drs. Gottfried Schlaug and Ellen Winne.

A total of 41 eight- to eleven-year-olds who had studied either piano or a string instrument for a minimum of three years were compared to 18 children who had no instrumental training. Children in both groups spent 30-40 minutes per week in general music classes at school, but those in the instrumental group also received private lessons learning an instrument (averaging 45 minutes per week) and spent additional time practicing at home.

While it is no surprise that the young musicians scored significantly higher than those in the control group on two skills closely related to their music training (auditory discrimination and finger dexterity), the more surprising result was that they also scored higher in two skills that appear unrelated to music—verbal ability (as measured by a vocabulary IQ test) and visual pattern completion (as measured by the Raven's Progressive Matrices). And furthermore, the

longer and more intensely the child had studied his or her instrument, the better he or she scored on these tests. (November 5, 2008)

<http://www.sciencedaily.com/releases/2008/11/081104132916.htm>

### **Research findings 3**

Researchers have found the first evidence that young children who take music lessons show different brain development and improved memory over the course of a year compared to children who do not receive musical training.

The findings, published (20 September 2006) in the online edition of the journal *Brain*, show that not only do the brains of musically-trained children respond to music in a different way to those of the untrained children, but also that the training improves their memory as well. After one year the musically trained children performed better in a memory test that is correlated with general intelligence skills such as literacy, verbal memory, visiospatial processing, mathematics and IQ.

The Canadian-based researchers reached these conclusions after measuring changes in brain responses to sounds in children aged between four and six. Over the period of a year they took four measurements in two groups of children - those taking Suzuki music lessons and those taking no musical training outside school - and found developmental changes over periods as short as four months. While previous studies have shown that older children given music lessons had greater improvements in IQ scores than children given drama lessons, this is the first study to identify these effects in brain-based measurements in young children.

Dr Laurel Trainor, Professor of Psychology, Neuroscience and Behaviour at McMaster University and Director of the McMaster Institute for Music and the Mind, said: "This is the first study to show that brain responses in young, musically trained and untrained children change differently over the course of a year. These changes are likely to be related to the cognitive benefit that is seen with musical training." Prof Trainor led the study with Dr Takako Fujioka, a scientist at Baycrest's Rotman Research Institute.

<http://www.sciencedaily.com/releases/2006/09/060920093024.htm>

### **Research findings 4**

Stanford University research has found for the first time that musical training improves how the brain processes the spoken word, a finding that researchers say could lead to improving the reading ability of children who have dyslexia and other reading problems. The study is the first to show that musical experience can help the brain improve its ability to distinguish between rapidly changing sounds that are key to understanding and using language. The research also eventually could provide the "why" behind other studies that have found that playing a musical instrument has cognitive benefits.

"What this study shows, that's novel, is that there's a specific aspect of language ... that's changed in the minds and brains of people with musical training," said researcher John Gabrieli, a former Stanford psychology professor now at the Massachusetts Institute of

Technology in Cambridge. "Especially for children ... who aren't good at rapid auditory processing and are high-risk for becoming poor readers, they may especially benefit from musical training."

"Playing music can be good for your brain," *San Fransisco Chronicle*, November 17, 2005  
<http://www.sfgate.com/news/article/Playing-music-can-be-good-for-your-brain-2594581.php>  
(article on recent Stanford research study linking music and language)

### **Research findings 5**

New brain research shows that music improves our brain development and even enhances skills in other subjects such as reading and math. Music enhances creativity and promotes social development, personality adjustment, and self-worth. Music making provides the most extensive exercise for brain cells and their synaptic interconnections.

Weinberger, N. M. "The Music in Our Minds," *Educational Leadership*, Vol. 56, #3;

### **Research findings 6**

Researchers at the University of Munster in Germany reported their discovery that music lessons in childhood actually enlarge the brain. An area used to analyze the pitch of a musical note is enlarged 25% in musicians, compared to people who have never played an instrument. The findings suggest the area is enlarged through practice and experience. The earlier the musicians were when they started musical training, the bigger this area of the brain appears to be.

Hodges, D. (2002) Implications of music and brain research, *Music Educators' Journal* Special Focus Issue: Music and the Brain, 87:2, 17-22.