

The following is a response to the Productivity Commission's interim report, more specifically relating to the pillar: *Building a Skilled and Adaptable Workforce*.

Educating for a productive future – it's time to sing a new tune.

The Australian Federal Government Productivity Commission's *Adaptable Workforce Interim Report* has highlighted "foundational skills provide a fundamental building block for adaptability" (p.5) suggesting improvements to school-based learning - specifically in reading, writing and mathematics - will contribute to a more adaptable workforce.

While a platform that aids educators to create inclusive and digitally enabled learning environments for students is a commendable suggestion, it will not directly lead to building the skills of adaptability therefore offer limited to no return on investment. The professional development required for its use will compound an already-stressed education workforce that is experiencing high attrition rates owing to increased administration responsibilities. While it could be argued that AI and edtech could be utilised to resolve this concern, and support student learning, this will only compound the issue of productivity as the Forbes top 50 AI companies reside outside of Australia¹. The profits incurred from the Productivity Commission's AI recommendation will likely remain overseas.

The Productivity Commission has recognised *adaptability* as a fundamental skill required in a future workforce where employees will need to complete further on-the-job training, reskilling, and upskilling. I recommend the Productivity Commission first rigorously scrutinise not only what is taught in schools, but bravely rethink how successful curriculum can be efficiently delivered and supported through means that are sustainable and incur life-long impact.

Solution: Embed Instrumental Music Education Programmes in all state-funded schools.

Queensland and Western Australian are currently the two states that have a free instrumental music program embedded in their state schools. A quick internet search will reveal that Australian schools possessing embedded and strong music programs consistently perform significantly higher in NAPLAN². This includes consideration of the "comparative average of students with a similar background", and "all Australian students." It is of no surprise that the Sydney Conservatorium High School was rated as [Australia's No.1 Public High School](#). This ranking includes the criterion indicator "high academic performance." This further supports the South Australian government decision to address chronic literacy and numeracy school underperformance by implementing its [Music Education Strategy 2019-](#)

¹ <https://www.forbes.com/lists/ai50/>

² <https://www.myschool.edu.au>

[2029](#) with the view to develop thinking and learning skills, lift literacy and numeracy standards, and build social inclusion and enhance wellbeing³.

Evidence supporting music education providing the foundational skills of productivity.

My own nation-wide 2024 Australian study found that those who had experienced instrumental music education were able to identify a plethora of skills transferable to their non-music workplaces, *further aiding productivity and workplace health*. It determined that instrumental music education introduced at primary school and sustained throughout secondary and beyond meant *a higher likelihood of degree completion, plus significantly developed soft skills and attitudes enabling their current and future employability*. These participants were **confident, self-sufficient, resilient, and more likely to embrace life-long learning**.

My research participants (N=186) hail predominantly from Queensland and Western Australia. These states have the longest-running government-funded instrumental music programmes. Table 1 shows most (94%) possess undergraduate, postgraduate, masters, or doctoral degrees: 56% attained undergraduate degrees (the national average is 32%⁴) and 11% possess a doctoral qualification (the national average is 1.3%⁵).

Table 1

Participants' (N=186) music and non-music qualifications.

Education	Music Qualifications		Non-Music Qualifications	
	n=	%	n=	%
No formal (e.g., self-taught)	5	4	12	6
Some formal (e.g., lessons)	150	81	n/a	n/a
Diploma/Certificate	25	12	36	19
Undergraduate degree	21	11	104	56
Postgraduate degree	0	0	45	24
Masters	2	1	56	30
PhD	0	0	20	11

Their non-music professions span 19 standard industrial classifications (see Table 2). Just under a third identified as health workers, and 12% worked in education – these are two areas of employment in current and future demand (Jobs and Skills Australia, 2024).

Table 2.

³ <https://www.education.sa.gov.au/schools-and-educators/strategies-and-initiatives/music-education-strategy-and-innovation-fund/music-education-strategy-and-music-innovation-fund>

⁴ <https://www.statista.com/statistics/612854/australia-population-with-university-degree/>

⁵ <https://www.vu.edu.au/about-vu/news-events/news/australia-has-way-more-phd-graduates-than-academic-jobs-heres-how-to-rethink-doctoral-degrees>

Participants' professions (N=186).

Employment Category and subcategories	n=	%
Health – audiologist, care/social worker, counsellor, doctor, dermatologist, health researcher, midwife, nurse, occupational therapist, pharmacologist, physiotherapist, psychologist, speech pathologist, veterinarian	59	32
Education – academic, lecturer, principal, provost, teacher/guidance counsellor (primary/high school/tertiary)	23	12
Law – barrister, chief legal officer, lawyer, legal clerk	17	9
Business – owner, consultant, analyst	13	7
Service – government, housing, library, religion,	13	7
Manufacturing and Construction – contracts administrator, estimator, project manager, quantity surveyor	11	6
Administration – government, medical, private business	7	4
Finance – accountant, auditor, economist, funds manager, philanthropy	7	4
Information Technology – analyst, management, software developer,	7	4
Engineering – civil, electronics, mechanical	6	3
Science – botanist, climate change consultant, ecologist, researcher	6	3
Communications – marketing, media	4	2
Agriculture – farming, livestock worker	2	1
Design - architecture	1	<1
Human Resource	2	1
Maths - mathematician	1	<1
Professional Services - consultant	1	<1
Retail – assistant, team leader	2	1
Retired (no reference to prior employment)	2	1
Transport – air and land	2	1
Total	186	100

Table 3 shows the skills and attitudes **attained** from their instrumental music education achieved at mostly intermediate and advanced standard. I then compared the results to their skills **used** in their current jobs. **Green** represents the top five skills, and **yellow** recognised the most comparatively gained/used.

Table 3.

Self-identified skills gained from music engagement compared to current skills used in non-music employment.

Skills Classification	Music Skills n=	% 11-79	Non-Music n=	% 31-96	Music Rank	Non-Music Rank	Comparison n=	Comparison %
Education 32% Health 12%								
Resilience & Perseverance	145	79	160	86	1	8	+15	+7
Autonomy & Self-Direction	141	77	157	85	2	9	+16	+8
Analytical Thinking	139	76	173	94	3	3	+34	+18
Teamwork & Collaboration	134	73	169	91	4*	5	+35	+18
Professionalism	134	73	171	92	4*	4	+37	+19
Flexibility & Adaptability	125	68	163	88	5	7*	+38	+20
Communication	124	67	178	96	6	1	+54	+29
Creativity	121	66	149	81	7	10	+28	+15
Planning & Time management	103	56	166	90	8	6	+63	+34
Inter/Intrapersonal Skills	102	55	163	88	9	7*	+61	+33
Leadership	91	49	145	78	10	11	+54	+29
Critical Thinking	89	48	176	95	11	2	+87	+47
Networking	84	46	125	68	12	13	+41	+22
Technology	32	17	143	77	13	12	+111	+60
Entrepreneurship	20	11	58	31	14	14	+38	+20

*Denotes equal ranking. **Green** denotes top five ranking. **Blue** denotes common skills within the top five of each context. **Yellow** represents the skill/attitude with similar results in both contexts. **Orange** represents the most disparate skill from one context to the other.

In **blue** one can see the common highly ranked skills **attained** through instrumental music education and **used** in their current jobs - *Analytical Thinking*, *Professionalism*, and *Teamwork & Collaboration*. It is interesting to point out that *Resilience & Perseverance* and *Autonomy & Self-direction* were skills and attitudes possessing similar results within both contexts, suggesting those perceived skills from music are highly transferable to their current employment which is largely health and education. It is also interesting to point out that *Communication* - prioritised as the most important in their current employment, is a skill utilised within *Teamwork and Participation*; and that *Critical Thinking* is a process that often follows *Analytical Thinking*.

It would be incorrect to think that **technological skills** were not addressed in their instrumental music education. As Van Laar and colleagues' (2017) systematic review of digital skills research concluded *technical expertise alone was not enough*, "how someone thinks, solves problems, **and learns**, has a greater impact on a person's ability to function in a technologically rich society than just being knowledgeable about specific software" (p.587).

These participants further identified feedback gained in workplace supervisor and peer reviews suggesting more than half possessed skills and attitudes conducive to efficient workplace productivity and future re-/upskilling workplace practice (see Table 4).

Table 4.

Participants' self-identified non-music co-worker perspective.

Descriptor	n=	%	Ranking
Possessing high professional values - ethics, integrity, standards	144	80	1
Possessing a strong work ethic	142	79	2
Intelligent	125	70	3
Willing to learn	124	69	4
Able to take initiative	122	68	5
Able to see both the detail and the bigger picture, plus consider multiple subsequent scenarios – systems thinking	119	66	6
Adaptable	117	65	7
Empathetic	115	64	8
Open-minded	108	60	9
Resilient	98	55	10
Confident	92	51	11
Resourceful	87	49	12
A creative thinker	77	43	13
A perfectionist	67	37	14
Humble	64	36	15
Brave	26	15	16

Prior studies on the “benefits of a quality, sequential and ongoing music education” (p.5) impacting one’s overall school education are *physical development/practical skills*, *learning development (reading, writing, and mathematics)*, and *human development* (self-regulation, self-awareness, and social cohesion) (Collins, Dwyer & Date, 2019, pp. 5-6). However, they further recommended to achieve this, ideally music education should:

- begin in pre-school.
- not just be for the “talented”.
- ensure complex strings, wind, brass and percussion instruments that require effort and mastery are taught.
- encourage students to learn over a long period of time (3-7 years) i.e., attain beyond beginner standard.
- and include teaching pedagogy that is “active, formal and structured” (Collins, Dwyer & Date, 2019, p.7).

Such music learning is known to significantly contribute to neurogenesis, creating brains possessing high function and capability (see Dr Anita Collins’ [Ted-Ed video](#)).

Australia’s current workforce have many musicians either working simultaneously in non-music roles (Throsby & Petetskaya, 2024), or leaving the music profession to pursue non-music careers (Tolmie, 2025). My research further ascertained the stronger the music capability and experience, the more developed their soft skills and attitudes. This in turn meant transferability was greater (more relevant to the adoption of new technologies). Table 5 and 6 illustrate this. In addition to health and education, 11% of musicians possessing dual careers worked in IT.

Table 5. The transferable skills of musicians who have exited the profession to pursue non-music roles.

Skills Classification Education 26% Health 18% Business and Admin 14%	Exited Music Skills n=	Exited % 50-96	Exited Non- Music n=	Exited % 43-95	Exited Music Rank	Exited Non-Music Rank	Exited Comparison n=	Exited Comparison %
Communication	73	96	72	95	1	1	-1	-1
Professionalism	73	96	69	91	1	3	-4	-5
Inter/Intrapersonal Skills	70	92	71	93	2	2	+1	+1
Teamwork & Collaboration	70	92	66	87	2	5	-4	-5
Flexibility & Adaptability	68	89	69	91	3	3	+1	+2
Planning & Time management	68	89	69	91	3	3	+1	+2
Resilience & Perseverance	68	89	68	89	3	4	0	0
Autonomy & Self-Direction	67	88	69	91	4	3	+2	+3
Creativity	67	88	66	87	4	5	-1	-1
Analytical Thinking	66	87	71	93	5	2	+5	+6
Networking	63	83	61	80	6	6	-2	-3
Critical Thinking	61	80	72	95	7	1	+11	+15
Leadership	60	79	60	79	8	7	0	0
Entrepreneurship	45	59	33	43	9	9	-12	-16
Technology	38	50	57	75	10	8	+19	+25

Table 6. The transferable skills of professional musicians who also work in non-music professions.

Skills Classification Health 19% Administration + Education 13% IT – 11%	Dual Music Skills n=	Dual % 70-100	Dual Non- Music n=	Dual % 60-98	Dual Music Rank	Dual Non-Music Rank	Dual Comparison n=	Dual Comparison %
Analytical Thinking	47	100	46	98	1	1	-1	-2
Teamwork & Collaboration	46	98	44	94	2	3	-2	-4
Creativity	46	98	41	87	2	6	-5	-11
Communication	45	96	45	96	3	2	0	0
Flexibility & Adaptability	45	96	44	94	3	3	-1	-2
Planning & Time management	45	96	43	91	3	4	-2	-5
Professionalism	44	94	44	94	4	3	0	0
Resilience & Perseverance	44	94	41	87	4	6	-3	-7
Autonomy & Self-Direction	43	91	43	91	5	4	0	0
Critical Thinking	43	91	43	91	5	4	0	0
Inter/Intrapersonal Skills	43	91	42	89	5	5	-1	-2
Leadership*	40	85	34	72	6	8	-6	-13
Networking	40	85	31	66	6	9	-9	-19
Technology	35	74	38	81	7	7	+3	+7
Entrepreneurship	33	70	28	60	8	10	-5	-10

*30% held leadership positions

Following the responses by the participants who were musically educated but never pursued a career in music (N=186) to the direct question, “In what way were the skills gained from your music education distinctly transferable to your non-music career?” I coded and themed their responses using the [Level 1-4 Global Skills Taxonomy](https://www1.reskillingrevolution2030.org/skills-taxonomy/index.html)⁶ of skills, knowledges, abilities, and attitudes. The most significant response was the attitudinal skill of *self-efficacy* (n=149) where the participants suggested their music education enabled *curiosity and life-long learning* (n=11), *dependability and attention to detail* (n=45), *motivation and self-awareness* (n=45), plus *resilience, flexibility and agility* (n=48).

An example response coded as *curiosity and lifelong learning* included:

“Learning music and being quite good at it gave me confidence to learn and try other new things as an adult [...] That confidence has extended into professional life where I have tried totally new projects and skills even though I may be feeling very unsure.”
(ME114, Federal Public Servant)

⁶ <https://www1.reskillingrevolution2030.org/skills-taxonomy/index.html>

The theme of music enabling *confidence* leading to public speaking, learning/trying new things – such as new technology, was also mentioned as something that empowered people more socially in the workplace. Others also discussed the ability to *focus for long periods of time* (in the age of smartphones, this is a cognition skill in vast decline costing employers much valued productivity⁷), and that their *high standards attained and sustained* in their music making was an expectation they brought into their work environment. Skills such as *pattern recognition* within sight reading, *non-verbal communication*, *mindfulness and joy* experienced with music were all skills and attitudes they perceived transferable to their workplace with some even using their musical skill to creatively achieve non-music outcomes.

Over a quarter commented they used music for health management and workplace resilience. A medical professional suggested - “I can have a stressful day at work and come home and play the piano until I've unwound” (ME16, Medical professional). Another lawyer added, “I also love that it uses my whole brain in a different way to my day job and going to rehearsal means I have to focus on the music and stop thinking about everything else that's going on which can be a fantastic reset and good for mental health balance” (ME147, Lawyer). This is a form of *self-management and care*, vital to workplace health and productivity. Some studies have estimated that the cost of unhealthy workplaces to businesses in Australia is in the order of \$11 billion (PwC 2014) to \$12.8 billion each year (KPMG and Mental Health Australia 2018). The Productivity Commission (2020) estimated that absenteeism and presenteeism in the workforce costs up to \$17 billion per year.

As Luci Ellis (Economic Advisor, Westpac Banking Corporation) has stated many times on public media platforms, “Productivity is just stuff divided by time”. Underrepresented in the Productivity Commission has been the skills of *planning and time management*. The sheer temporal nature of music means the musically trained have an intimate knowledge of the construct that is time. Furthermore, they understand the value of hard deadlines often citing the rehearsal and performance mantra “early is on time, on time is late, and late is left behind”. With this work ethic, they are likewise equipped to accurately estimate the time and processes it takes to acquit all tasks that lead to the end product. The musically educated see correlations between personal practice, rehearsals, mental preparation with team meetings, work-in-progress milestones, client meetings, work contribution, all towards the deadline/launch/event etc⁸.

The World Economic Forum Future of Jobs Survey report 2025 has identified the most crucial skills required by employers for the next 5 years:

“**AI and big data** top the list as the fastest-growing skills, followed closely by **networks and cybersecurity** and **technological literacy**. Complementing these technological skills, **creative thinking** and two socio-emotional attitudes – **resilience, flexibility, and agility**, along with **curiosity and lifelong learning** – are also seen as rising in importance. Also ranking among the top 10 skills on the rise are **leadership and social influence, talent management**,

⁷ <https://www.forbes.com/sites/jackkelly/2023/07/10/the-problem-with-scrolling-through-social-media-during-the-workday/?sh=608d5b273150>

⁸ <https://theconversation.com/an-education-in-music-makes-you-a-better-employee-are-recruiters-in-tune-226960>

analytical thinking, and **environmental stewardship**. These skills highlight the need for workers who can lead teams, manage talent effectively and adapt to sustainability and green transitions in an increasingly complex and interconnected world.” (WEF, 2025, p.37)

In summary, instrumental music education greatly impacts the lives of our future Australians who subsequently represent a highly educated, experienced, largely skilled and professional population who are excellent role models for their peers and mitigate their work-stress through music-making thus creating a more capable and cost-effective workforce. Their skills attained through music are current and future requirements for a strong economy. When considering AI and technological advancements, their technological capabilities such as *Analytical thinking*, *Confidence* and *Willing to Learn* attitudes developed through music will more than enable necessary future adaptability, thus sustaining and **increasing workplace productivity**.

This proposal requires significant investment but less than what is currently proposed in the Productivity Commission’s interim report, resulting greater and more sustainable return and long-lasting social dividends. To achieve improved workplace productivity via a more justifiable process, the Australian Government will need to acquit the following recommendations. To note, this proposal correlates with recommendations to the Australian Government following the federal inquiry into the problems and challenges within the Australian live music industry. Cost-saving strategies exist.

Recommendations

- Embed Commonwealth-funded instrumental music programmes in all primary and secondary state schools throughout Australia modelling prevailing best-practice initiatives, plus expand existing budgets for current school instrumental programmes to enable higher student participation.
- Offer government-funded incentives to private schools who have limited or no instrumental music programmes.
- In acknowledgement of educational value, reform ATAR scaling practices of secondary school music education subjects⁹.
- Include the Arts within STEM conversations (reform to STEAM) and do not deter school-aged students from arts (more specifically music) careers¹⁰.
- Offer government-funded financial incentives and support to universities and conservatoires to prioritise and further develop rigorous instrumental music teacher training.
- Increase the depth of current music curriculum training for pre-service primary and secondary school teachers (currently in decline¹¹).
- Provide financial and infra-structure support for current and new community music initiatives.

⁹ NAAE. (2024, November 14). NAAE advocates for declining creative arts courses. NAAE news. <https://naae.org.au/news/naae-advocacy-for-declining-creative-arts-courses>

¹⁰ White, R. (2019, November 29). The majority of music students drop out before the end of high school – is the ATAR to blame? *The Conversation*. <https://theconversation.com/the-majority-of-music-students-drop-out-before-the-end-of-high-school-is-the-atar-to-blame-126350>

¹¹ https://www.alberts.co/wp-content/uploads/2023/06/Music-Education-ITE-Report_A4_130623.pdf

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