



The power of the arts in learning and the curriculum: a review of research literature

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Introduction

In this article, I contend that The Arts are not an optional addition to core curriculum; they **are** core curriculum and a human right, as outlined by the United Nations. The Arts possess an extraordinary power to transform education. Both Australian and international research continues to evidence the transformative impact of arts-rich education on students' learning, teachers' pedagogy, social and emotional wellbeing for "at risk" community members and humanity more generally. Despite this, the place of The Arts in the curriculum is almost constantly under threat in many Australian schools. Review after review of curriculum, schooling and education (see for example, Donnelly & Wiltshire, 2014; Gonski, Arcus, Boston, Gould, Johnson, O'Brien, Perry & Roberts, 2018; and Masters, 2020) continue to undervalue The Arts in school curricula.

The Australia Council for the Arts found, after surveying over 3000 Australians from a range of economic and geographical backgrounds, that 89% of Australians agreed that "The arts should be an **important** part of the education for **every Australian**" (Australia Council for The Arts, 2014, p. 15, my emphasis). Yet little is actually known about the delivery of The Arts curriculum in Australian schools, despite calls from the National Advocates for Arts Education for a federally funded review into this area (NAAE, 2019). Two reviews more than a decade ago indicated that the delivery of Music

and Visual Arts in Australian schools was patchy and the provision of resources was tied to socio-economic advantage (Davis, 2008; Pascoe, Leong, MacCallum, Mackinlay, Marsh, Smith, Church, & Winterton, 2005).

This article briefly maps the current arts educational landscape in Australia, then provides a snapshot of some significant large scale and multi-arts Australian and international research literature that demonstrates the imperative of The Arts in Education.

The context: The Arts in Australian education

I have worked in education for more than a decade. During this time every Australian Education Minister has called for some form of 'back to basics' in education. This counters the research that continues to demonstrate that much more than a 'basic' education is needed to equip Australian students for contemporary life and work. This review examines why the basics rhetoric is highly problematic and why The Arts (in Australia The Arts learning area includes the five discreet subjects of Dance, Drama, Media Arts, Music and Visual Arts), should be central to curriculum and learning.

Australian education, like education in many other developed countries, has succumbed to the 'standards movement' (Marzano & Kendall, 1996; Robinson & Aronica, 2015). Problems associated with the 'standards movement' have only been amplified by the Organisation for Economic Co-operation and Development's (OECD) introduction of the Program for International Student Assessment (PISA). PISA involves the administration of standardised tests in OECD countries every three years. Student results in reading, maths and science are measured and compared. Robinson with Aronica (2015) reflect:

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The political impact of PISA has grown [...] In 2001, the results attracted relatively mild attention in the European press. In 2013, they made headlines round the world and sent tremors through governments everywhere. Ministers of education now compare their respective rankings like bodybuilders flexing their biceps. Like the press, they seem to treat the rankings as an absolute measure of their success. (p. 7)

While PISA has also produced reports focusing on student wellbeing, this domain rarely receives the same level of media and political attention as the academic rankings.

Bamford's (2006, 2009) vast international research project explored the impact of 'arts-rich' programs commissioned by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and found that "the arts appear in the educational policy in almost every country in the world [and] there is a gulf between the 'lip service' given to arts education and the provisions provided within schools" (2009, p. 11). Bamford's observation reflects the current state of Australian policy and practice. Although the reviews of Music (Pascoe et al., 2005) and Visual Arts education (Davis, 2008) highlighted links between socio-economic advantage and the delivery of quality arts education and resourcing in schools, there has been no national review of Drama, Dance or Media Arts Education, or Arts Education more broadly in Australia. It is my view, however, that the provision of the three remaining arts subjects in schools (Dance, Drama and Media Arts) would be inferior to that for Music and Visual Arts, particularly in early childhood and primary contexts.

This is despite a central entitlement enshrined in the national *Australian Curriculum: The Arts* (ACARA, 2011) that states that:

The Australian Curriculum for the Arts will be based on the assumption that all young Australians are entitled to engage with the five Arts subjects and should be given an opportunity to experience the special knowledge and skills base of each. (ACARA, 2011, p. 4)

In addition, "From the first year of secondary school [...] students will have the opportunity to experience some Arts subjects in greater depth and to specialise in one or more Arts subjects" (ACARA, 2011, p. 4). To date, no national research has been conducted to indicate how the implementation of the *Australian Curriculum: The Arts* has been undertaken in schools. The entitlement to an Arts Education in Australia is also framed by the most recent statement outlining

the Education Goals for Young Australians, the *Alice Springs (Mparntwe) Education Declaration* (Council of Australian Governments Education Council [COAGEC], 2019). The *Alice Springs (Mparntwe) Education Declaration* has two major goals, the first being a broad statement: "The Australian education system promotes excellence and equity" (COAGEC, 2019, p. 4), and the second goal:

Goal 2: All young Australians become:

- confident and creative individuals
- successful lifelong learners [and]
- active and informed members of the community. (COAGEC, 2019, p. 4)

Elaborations accompany the goals and as well as statements outlining how to achieve these goals.

Internationally, The Arts, play, and creativity are included in The United Nations' *Convention on the Rights of the Child* (United Nations, 1989), of which Australia is a signatory. Article 31 particularly deserves attention:

1. State Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.
2. State Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activity. (United Nations, 1989, p. 9)

In Australia, a growing focus on Science, Technology, Engineering and Maths (STEM) (COAGEC, 2018) learning continues to privilege these subjects in schools. The Arts are placed towards the bottom of the subject hierarchy while STEM floats towards the top alongside English and literacy. The Federal Government's 2015 *National Innovation and Science Agenda* strongly pushed for STEM learning in schools, and recent government announcements have included the provision of \$1.1 billion AUD over a four-year period and \$64.6 million AUD for "initiatives to help students embrace the digital age and prepare for the jobs of the future" (Department of Industry, Innovation and Science, 2018, para 3). The House of Representatives Standing Committee on Employment, Education and Training's (HORSCEET) *Inquiry into Innovation and Creativity* recommended that: "the National Innovation and Science Agenda explicitly recognises the importance of STEAM, creative digital skills, the creative industries and the arts more generally" (HORSCEET,

2017, p. XIX). Yet, there has been no visible change by the Australian Government to include The Arts in STEAM rather than STEM.

I've recently drawn on the work of Chalmers and Quigley (2017) and Frey and Osbourne (2013) to argue that we are working in an education paradigm “with the false ideas that Science, Technology, Engineering and Maths (STEM) learning will ‘future proof’ young people and adequately prepare them for a world that we are struggling to imagine” (Saunders, 2018, p. 42). Chalmers and Quigley (2017) claim that the economy and the world have moved into a seventh revolution of artificial intelligence (A.I.), Robotics, Automation and Machine Learning (M.L.) (hereafter referred to as ‘A.I., Robotics, Automation, and M.L.’). They also argue that this A.I., Robotics, Automation, and M.L. revolution is very different from the previous six historical revolutions (from the First Agricultural Revolution through to the Digital Revolution) that have significantly shaped life and work for humans because “while earlier revolutions replaced human effort, this one goes a step further to directly challenge some intrinsic traits that make us human – thinking, problem-solving and decision-making” (Chalmers & Quigley, 2017, p. 3). However, little attention is given to the importance of Arts Education in tackling these challenges.

In contrast, Frey and Osbourne (2013) analysed the susceptibility of much of today's employment being replaced by computerisation in the United State (US). Their investigation revealed that “47 percent of total US employment is in the high-risk category, meaning that associated occupations are potentially automatable over some unspecified number of years, perhaps a decade or two” (Frey & Osbourne, 2013, p. 38). Similar figures have been identified by researchers exploring the Australian employment landscape, noting that “44 percent (5.1 million) of current Australian jobs are at high risk of being affected by computerisation and technology over the next 20 years” (Reading, Thorpe, & Peake, 2015, p. 4). Reading et al. (2015) argue for “business [...] to take a leading role alongside government and the education sector in order to deliver the STEM outcomes Australia needs to remain a competitive, innovative and prosperous nation” (p.4). They claim that: “there will be a growing need for the broad skills that STEM fosters. Critical thinking and problem solving, analytic capabilities, curiosity and imagination have all been identified as critical ‘survival skills’ in the workplace of the future” (Reading et al., 2015, p. 14). There is no mention of The Arts or STEAM in Reading et al.'s paper, nor how the mentioned skills can be fostered in quality Arts learning. In stark

contrast, Frey and Osbourne (2013) identify that ‘creative and social skills’ are evident in jobs that are the least likely to be redundant through computerisation (Frey & Osbourne, 2013). They contend:

[...] as technology races ahead, low-skilled workers will reallocate to tasks that are non-susceptible to computerisation – i.e., tasks requiring creative and social intelligence. For workers to win the race, however, they will have to acquire creative and social skills. (p. 45)

In the United States, the ‘21st Century Education Movement’ has been advanced by the National Education Association (NEA) which formed *Partnership for 21st Century Skills* and collaborated with experts in education, business and government. The original 18 essential skills released by NEA in 2002 have been revised down to four overarching skills and are now referred to as the ‘4Cs’: critical thinking, communication, collaboration, and creativity (NEA, 2013). These 4Cs are in addition to ensuring that students have strong content knowledge (NEA, 2013). Many educators argue that Arts processes are central to realising the 4Cs (Ewing & Saunders, 2019; Gibson & Ewing, 2021; Jefferson & Anderson, 2017).

Internationally, the *OECD Learning Framework 2030* (OECD, 2018) also aims to create a shared vision for education. The learning framework provides three areas of competency, each with a series of descriptors.

Knowledge Disciplinary, interdisciplinary, epistemic, and procedural knowledge.

Skills Cognitive & meta-cognitive, social and emotional, physical & practical skills.

Attitudes and values Personal, local, societal and global attitudes and values. (Adapted from OECD, 2018, p. 4)

The OECD provides a list of 36 skills that “is not exhaustive but constructs are selected that are closely related to the key concepts underpinning the framework” (p. 17) across a range of dispositions and capabilities including: adaptability/flexibility/adjustment/agility; compassion; creativity/critical thinking/inventive thinking; empathy; engagement/communication skills/collaboration skills; hope; self-awareness; mindfulness; and respect, to name a few (OECD, 2018, p. 17). Many of the OECD identified skills are deeply embedded in quality Arts learning and evidenced in the research that follows.

The research

This section provides a brief snapshot of the vast literature exploring Education and The Arts, with a particular focus on broad international and Australian studies that highlight both impact and outcomes. It must be noted, however, that much of this research is dated and more current research is desperately needed.

More than two decades ago a unique and significant report, *Champions of Change: The Impact of The Arts on Learning* (Fiske, 1999) included seven independent research studies, laying a solid foundation for further large-scale research and meta-analysis investigating the impact of The Arts in Education. Overall, Fiske concluded that the Arts:

- reach students who are not otherwise being reached
- reach students in ways that they are not otherwise being reached
- connect students to themselves and each other and at the same time providing new challenges for those students already considered successful
- transform the environment for learning
- provide learning opportunities for the adults in the lives of young people
- connect learning experiences to the world of real work. (Fiske, 1999, p. IX)

In my opinion, the most significant study included in Fiske’s meta-analysis was Catterall, Chapleau and Iwanaga’s (1999) research into the areas of music and theatre arts (drama) and human development over a 10-year period with some 25,000 US students using the NELS:88 (National Educational Longitudinal Survey) data. Catterall and his colleagues found that there were “positive academic developments for children [who] engaged in the arts” which became “more pronounced over time” (Catterall et al., 1999, p. 2), signifying that the time allocated for The Arts and continued learning in The Arts is fundamental in realising its full potential. The research explored ‘high arts’ (both curriculum-based and extra-curricular activities) and ‘low arts’ engagement at school and compared high socio-economic status (SES) students to low SES students.

A comprehensive meta-analysis by Winner and Cooper (2000) to explore the impact of The Arts concluded:

[...] we have as yet no evidence that studying the arts has a *causal* effect on academic achievement. We cannot draw any inferences about transfer from the

correlational studies that we have reviewed and that are so often cited in the press, since correlational studies do not prove causation. (p. 65, emphasis added)

Winner and Cooper did comment, however, that their five meta-analyses did “converge to demonstrate that a positive relationship between studying the arts and academic achievement does exist” (2000, p. 58).

In 2002 a large meta-analysis of 62 individual research studies compiled by Deasy explored the relationship between arts-rich programs in Dance, Drama, Media, Music and Visual Arts and Multi-Arts and increased higher order thinking and other cognitive capacities as well as increased motivation to learn and improved academic achievement in reading, language and mathematics. Catterall’s (2002) final essay in this collection draws these important threads together.

Continuing his earlier longitudinal work, Catterall (2009) documented the long-term impacts of The Arts on the 1999 cohort as they emerged into adulthood. Those students from both low and high SES backgrounds who had ‘high arts’ participation at school, were more likely to engage in volunteer work, more likely to be registered to vote and indicated that ‘strong friendships’ were important to them. ‘High arts’ students were also more likely to attend college or university and were less likely to be dependent on public assistance than their peers who had ‘low arts’ engagement at school (Catterall, 2009). Again in 2012 Catterall, Dumais and Hampden-Thompson reported on data collected from four databases spanning 20 years from 1988 to 2008 that there were significant correlations between arts engagement at school or as extracurricular activities with young people who were ‘at-risk’ (defined as socially and economically disadvantaged) and higher academic achievement.

More recently, Bamford’s (2006, 2009) international research found that the impact of arts-rich education were profound and similarly contributed to both social and emotional wellbeing as well as academic achievement in the Arts and more broadly. Some highlights from her research included that, arts-rich education:

- contributed to improved student educational attainment and academic achievement
- significantly enhanced literacy and performance in language learning
- led to improvement in student, parent and community perceptions of schools

- improved students' attitude to school by increasing cooperation, respect, responsibility, tolerance, and appreciation
- can help build positive perceptions of the individual, the school and community contexts through performances and public presentations
- can instigate more creative and interesting approaches to teaching
- benefits health and well-being
- involves learning process that are structurally different from other disciplines within the curriculum
- develops ICT literacies and technical skills. (Adapted from Bamford, 2009).

Researchers at Project Zero, Harvard Graduate School of Education looked intensively, at what makes *quality* arts-based experiences in education in the US. Seidel, Tishman, Winner, Hetland and Palmer's (2009) research found that:

- “the drive for quality is personal, passionate, and persistent” (p. III);
- “quality arts education serves multiple purposes simultaneously” (p. III);
- “quality reveals itself ‘in the room’ through four different lenses: learning, pedagogy, community dynamics and environment” (p. IV).
- “foundational decisions matter” (p. IV), particularly the decisions about “who teaches the arts [...] where the arts are taught [...] what is taught and how [it is taught, and] how arts learning is assessed” (p. IV).
- “decisions and decision makers at all levels affect quality” (p. IV), and finally, that
- “reflection and dialogue is important at all levels”. (Seidel et al., 2009, p. IV)

For 25 years, The Royal Conservatory in Canada's *Learning Through The Arts* (LTTA) initiative has been delivering and researching the impact of their arts in education programs. In 2019 they identified four key findings from their research:

- In a 3 year (1999–2002) national study Grade 6 participants scored 11 percentile points higher on tests of computation and estimation than did their control group peers;
- In all LTTA studies, teachers, principals, and students indicated that students are highly engaged in their learning in LTTA classes;
- In a 2010 LTTA study involving over 1200 students, teachers reported that the positive effects of LTTA

programming on students' engagement in learning, capacities to work collaboratively, openness to different points of view, and happiness to be at school were being transferred to students' school life and learning in general, and

- A Pan-Canadian LTTA (2007–2009) found that Aboriginal learners reported a special resonance with arts-based learning. (The Royal Conservatory, 2019)

In Australia, Ewing's (2010) review of research and programs in Arts Education in Australia and internationally, drew similar conclusions to those detailed above in confirming the transformative role of quality arts processes and experiences across the curriculum. Like Bamford before her, Ewing noted a gap between policy and practice. While all national policy statements on education in Europe emphasised the cultural dimension of the arts and the importance of promoting the artistic and creative abilities of young people, in actuality the main disciplines taught were often limited to visual arts and music with less time and status afforded than the sciences (Ewing, 2010). Ewing concluded that “If we are to realise the transformative potential of the Arts in education, we must move beyond rhetoric in policy about its importance, to action” (2010, p. 56).

A particularly significant longitudinal study in Australia combined qualitative and quantitative methods when collecting data across 15 schools working with 643 primary and secondary school students over three years (Martin, Mansour, Anderson, Gibson, Liem and Sudmalis, 2013). The study “identified significant school, home, and community-based arts participation factors predicting academic (e.g., motivation and engagement) and non-academic (e.g., self-esteem, life satisfaction) outcomes” (Martin et al., 2013, p. 721). Martin and his colleagues also found “these effects held after controlling for major socio demographic and prior achievement factors and prior variance in the outcomes under focus” (Martin et al., 2013, p. 721).

A large study commissioned by the OECD, Winner, Goldstein and Vincent-Lancrin (2013) found that:

An extensive body of correlational data in the United States reveals that students who participate in a large number of arts courses [...] have higher educational attainment levels (as measured by grades in school and scores on verbal and mathematical standardised tests) than do those who take fewer or no arts courses [...]. (Winner et al., 2013, p. 6)

However, the researchers also state that “These correlational findings should not be taken as showing that the arts courses *cause* the higher educational attainment. Plausible non-causal explanation cannot be ruled out” (p. 6, emphasis added). Clearly further research is needed in this area.

A recent Australian research project that exemplifies the power of the arts in transforming education, is the *Y Connect Project*, a partnership between Yeronga State High School (Queensland) and Griffith University. *Y Connect* involved arts-rich pedagogies employed across the curriculum and artists and arts organisations working with classroom teachers to enhance teaching and learning through the arts (both in arts and non-arts classrooms). The project ran for 2.5 years and delivered over 900 h of activity (Dunn, Bundy, Jones, Stinson, Hassall, Penton, Lazaroo, & Le, 2019). Six case studies were conducted, each focusing on different aspects of the project. Improvements were noted for students in connection to the school community; to learning; to self and possible selves as well as to each other; to the arts, artists and arts organisations (Dunn et al., 2009).

Finally, a longstanding Australian program is worthy of note. Although focusing on two artforms (drama and literature), the *School Drama*TM program, a partnership between Sydney Theatre Company and The University of Sydney has been employing teaching artists to work alongside teachers using drama-rich pedagogy with quality children’s literature in primary English classrooms since 2009 to improve English and literacy outcomes, reaching over 35,000 teachers and students by 2020. The most recent research into the program has found shifts across the four literacy areas of creative/imaginative writing, vocabulary development, inferential comprehension and confidence in oracy (Saunders, 2019). Benchmarking data found that student literacy increased on average just under one full grade (e.g. moving from C to B) over the term and achievement was more pronounced in less proficient male students. There is also strong evidence to suggest that drama-rich pedagogy can enhance student confidence, collaboration, imagination, engagement and connection to character

(Saunders, 2019). The program has been successfully adapted for secondary English as an Additional Language/Dialect (EAL/D) learners, as well as adult refugees, migrants and asylum seekers through the *Connected* program (see Campbell & Hogan, 2019).

The table below (Table 1 - Appendix) provides a cross referencing of knowledge, skills, dispositions and competencies and tracks these against goals for education and the studies, meta-analyses, individual programs, projects and case studies that have been discussed in this article. It is neither exhaustive nor comprehensive but supports my contention that through The Arts, our educational goals can be achieved.

Conclusion: Harnessing the power of the arts in Australian education

Significant research across decades demonstrates that The Arts improve student academic results generally, particularly in literacy and numeracy. The Arts can improve student confidence, motivation, engagement and social and emotional well-being enabling ongoing development of lifelong learners. As adults, those students who engaged in The Arts at school are more active and engaged community members. Despite this research evidence, policy documents and the general public’s acknowledgment of the importance of The Arts, their place in the curriculum and in schools is almost constantly threatened and advocates are frequently required to justify their place (Saunders & Stinson, 2016).

If we truly want a future world where our citizens are compassionate, confident, literate, numerate, academic, creative, motivated, engaged learners who can harness their imaginations and creativities to think in divergent and flexible ways, then we must invest in quality Arts curriculum in schools. Our young people have the right to a quality Arts Education and their futures depend on receiving this. We address the gap between policy and practice within Australian schools to ensure that every child receives a quality education, that values The Arts.

Appendix

Table 1 Cross referencing of knowledge, skills, dispositions and competencies against goals for education and research studies, meta-analyses, individual programs, projects and case studies

Knowledge, skills, dispositions and competencies	Goals for education			Large scale studies and meta-analyses							Individual program, projects and case studies		
	Alice Springs (Mparntwe) Education Declaration. (COAGEC) 2019).	OECD Learning Framework 2030 (OECD, 2018).	Preparing 21 st century students for a global society. (NEA, 2013).	Champions of change. (Fiske, 1999).	Critical links. (Deasy, 2002).	The wow factor. (Bamford, 2006, 2009).	The arts and achievement in at-risk youth. (Catterall, Dumais and Hampden-Thompson, 2012)	The arts and Australian education. (Ewing., 2010).	The role of arts participation in students' academic and nonacademic outcomes. (Martin et al., 2013).	Arts for art's sake? The Impact of Arts education. (Winner, Goldstein and Vincent-Lancrin (2013).	Learning through the arts research. (The Royal Conservatory, Canada, 2019)	Creating Critical Connections through the Arts: The Y Connect Key Findings and Significance Report. (Dunn et al., 2019)	Dramatic Intentions (Saunders, 2019)
Academic general	*			*	*	*	*	*	*	*	*	*	*
Academic literacy	*				*	*				*		*	*
Academic numeracy	*				*					*		*	
Confidence	*				*							*	*
Creativity/ Creative thinking	*	*	*		*								
Lifelong learning/ post-school education	*				*		*	*					
Active/informed/engaged citizens, volunteer, participate in community	*			*	*		*	*					
Collaboration		*	*		*						*	*	*
Communication		*	*								*	*	*
Critical thinking		*	*										
Motivation and/or engagement		*		*	*			*	*		*	*	*
Social, emotional wellbeing and Empathy		*			*	*		*	*		*	*	*
Drop out of school					*		*	*					

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