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## Generalist Pre-Service Teacher Education, Self-Efficacy and Arts Education: An Impossible Expectation?

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### Abstract

Generalist teacher educators in Australia are struggling with an impossible expectation in the area of arts education. This is due to a cascading trio of systemic issues. Firstly generalist teachers are entering their teacher education courses with variable and often minimal personal arts training. Secondly they are ill supported to improve their arts discipline knowledge through a lack of time given to each arts discipline during their courses. Finally they are expected to deliver the arts curriculum, often without extensive professional support, to their classes at the same quality and level as a specialist arts educator. At present, the research has focused on individual arts disciplines, not the effect of these cascading systemic issues on the confidence and competency of pre-service teachers across multiple arts disciplines. This paper reports on the findings of a study that tracked the levels of self-efficacy across four arts disciplines and suggests new approaches to this impossible expectation.

## Introduction

At present, generalist early childhood and primary (ECP) teachers, also known as elementary teachers, are expected to be able to deliver all areas of the arts curriculum (Dance, Drama, Media Arts, Music and Visual Arts) in Australia. Unfortunately, there are multiple systemic issues with this requirement in the Australian teacher education context. The first issue is the intense, and arguably unattainable, requirement for a generalist ECP teacher to deliver learning across five arts disciplines. This is far beyond what we require a specialist arts educator to deliver, and yet it is expected that a generalist ECP teacher can deliver the entirety of the arts curriculum. The second issue, keeping in mind this in-service expectation, is the lack of time and resources allocated to arts education within most undergraduate pre-service teacher education course in Australia. In a 2009 study of the provision of music education in teacher education course (Hocking, 2009), an average of 1.51% of any university teacher education course was allocated to music education. With all arts disciplines given equal time in a teacher education course, this amounts to, at the most, around 7.5% of the teaching course allocated to education in arts content and pedagogy (Hocking, 2009). This leads to the third issue, which is that 7.5% of a teacher education course would be enough if the pre-service teachers entered their courses with sufficient arts discipline specific knowledge upon which to build an understanding of pedagogy. However the reality is that it is extraordinarily rare for pre-service teachers in Australia to commence their teacher education course with enough arts content knowledge across five arts disciplines to understand the curriculum they are required to teach. The result of these cascading systemic issues is a decline in the quality of arts education that is delivered to young students across Australia.

## The Australian teacher education context

Arts Education has been a key learning area within the Australian educational context since the *Hobart Declaration* in 1988. In the 27 years since this declaration, the inclusion of Arts Education as a separate and integral key learning area has been confirmed through the 1999 *Adelaide Declaration on National Goals for Schooling in the Twenty-First Century*, 2005 *National Education and the Arts Statement*, UNESCO's 2006 *Road Map for Arts Education* and most recently the inclusion of the Arts in the second of three phases in the *Australian National Curriculum*. Arts Education is an established part of the Australian educational landscape, although there continues to be regular, passionate debate and review concerning the perception and equitable provision of the Arts in schools themselves including the *Review of the Australian Curriculum Final Report* (Donnelly & Wiltshire, 2014), *Making the Progression: Report of the National Music Workshop* (Australian Music Association, 2007), *First we see. The national review of visual education* (Davis, 2008), *National review of school music education: Augmenting the diminished* (Pascoe et al., 2005). This is a similar situation, both in inclusion and debate, in other comparable Western educational systems, such as the

Champion of Change (Fiske, 1999) paper in the U.S. and the Musical Futures program in the U.K. (Hallam, 2009).

The provision of education in Australia falls to the federal, state and territory governments, with the federal government setting broad educational standards and outcomes and allowing each state and territory<sup>1</sup> to then interpret, develop and deliver that education as appropriate in each states' economic, educational and cultural context. This has allowed each state and territory to deliver arts education through a number of different models. At the extremes, in the 1980's Queensland elected to train and employ specialist arts educators, usually with one or two arts specialties, to deliver the arts education curriculum in primary schools. Conversely New South Wales elected to train generalist teachers in arts education so they could deliver the curriculum with all of its five arts disciplines. The majority of other states and territories deliver their arts curriculum through a combination of specialists and generalist teachers. Increasingly, the provision of arts education through specialists or generalists is the decision of the school leader and is heavily influenced by the availability of appropriately trained staff and their own personal opinion on the value of arts education in general (Pascoe et al., 2005). The description above applies to the public education system; however the provision of arts education by specialists is far higher in the Independent and Catholic school systems (Letts, 2013).

In Australia the key learning area of the arts consists of five arts disciplines: Dance, Drama, Media Arts, Music and Visual Arts. The cascading systemic issues begins with the notion that one individual teacher has the capacity to deliver effective and pedagogically sound educational experiences in five significantly different arts disciplines. Some could argue, due to the young age of their students, that these generalist teachers are only delivering the basic skills and knowledge in each arts discipline, and that surely this is easy to accomplish. Yet research teacher education in arts education has shown just how vital expertise and confidence is for young students learning outcomes in all subject areas, including the arts (Darling-Hammond, 2000), as well as how high quality arts education can establish effective neural pathways that contribute to effective learning across all academic fields (Dunbar, 2008; Gazzaniga, 2008; Hardiman, Magsamen, McKhann & Eilber, 2009).

However, nothing is impossible with sufficient training, and this is where the second systemic issue becomes apparent. A variety of models for the provision of arts education within a teacher education courses exist around Australia, as generalist teacher educators attempt to

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<sup>1</sup> Australia Capital Territory (ACT), New South Wales (NSW), South Australia (SA), Queensland (QLD), Northern Territory (NT), Western Australia (WA), Tasmania (TAS)

achieve the best results in the limited time available in their course. Several universities use an integrated design while others offer a suite of units covering each arts discipline discreetly and separately. Universities deal with similar issues to school leaders in this regard; the provision of arts education learning is heavily influenced by the availability of appropriate staff and the value arts education holds within the broader construct of a teacher education course. State bodies<sup>2</sup> accredit all teacher education courses and all states reciprocate recognition of all other state and territory accreditation processes, which is overseen by the federal Australian Institute for Teaching and School Leadership (AITSL). To highlight the differences in provision through university courses in the single arts discipline of music education, in an audit report in 2009, pre service ECP teachers could receive between four and 17 contact hours in music education, and on average 1.51% of a teacher education course will be allotted to music education (Hocking, 2009). This is similar for all other arts disciplines.

Yet, even with limited contact time for arts education in teacher education courses, effective arts education could be delivered if the pre-service teachers entered their courses with a sufficient level of content knowledge and personal arts skills and experiences across the five arts disciplines. This is not the case. The vast majority of Australian pre-service teachers do not have a solid foundation of content knowledge in more than one arts discipline (Russell-Bowie, 1996). This is due to the streaming of subjects in secondary school where, in general, students tend to focus on one arts discipline, and even this is not required beyond the middle years of secondary school. Furthermore, Media Arts as a discreet arts discipline has only been included in the Australian Curriculum since the late 1990s (Greenaway, 1997). Consequently pre-service teachers are unlikely to have experienced this discipline in their own education. This lack of broad and continuous arts education experience in secondary school has a direct impact on tertiary teacher education courses in arts education. Lecturers and learning designers are confronted by the prospect of equipping the pre-service teachers with both the content of each arts discipline and the ability to teach all five arts disciplines simultaneously. Within the current system, the premise that every generalist ECP teachers can deliver quality arts education across all five disciplines to Australian students seems almost impossible. The current paradigm in teacher education is a one-size-fits-all model, where the requirement to treat each arts discipline equally is interpreted as providing an equal amount of contact learning time to each arts discipline. This does not take into account the widely varied prior knowledge with which pre-service teachers enter their course, or the deeper issue that delivery of quality arts education across five arts disciplines could be an unachievable expectation for any teacher. Furthermore, this expectation is not confined to the Australian context; it exists in a number of other Western education systems (Russell-Bowie, 2002).

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<sup>2</sup> e.g. New South Wales Institute of Teachers (NSW) or the Teacher Quality Institute (ACT)

This paper will report on an on-going research project, *Self Efficacy Across Arts Education*, using Bandura's self-efficacy measures in pre-service generalist ECP arts education training. The paper will explore the successful principles and practices employed under the current one-size-fits-all teacher education model for arts education as they relate to self-efficacy. In the light of this study, suggestions will be made for alternate models, principles and practices that may improve the provision of arts education for pre-service generalist ECP teachers.

### **Literature**

Self-efficacy and pre-service teacher education is a widely researched area (Garvis, Twigg, & Pendergast, 2011; Garvis, & Pendergast, 2011; Jeanneret, 1997; Kane, 2008). In terms of arts education for pre-service teachers, research has been conducted within all arts disciplines, but not across all arts disciplines such as in the *Self Efficacy across Arts Education* study. This is due to the structure of teacher education courses and delivery. Typically a single academic with a team of sessional staff, or a small team of academics, design and deliver arts education units within teacher education courses in Australian universities. Commonly the lead teaching academic will have his or her own arts specialty, such as music education, and will have a focus on research and education in that specific area. This is the case at the site for this study and thus the literature described in this review is based in music education only, but shares many issues and findings with research in Dance, Drama and Visual Arts pre-service teacher self-efficacy research.

Confidence in the ability to teach music has been found to be a significant factor in the field of pre-service generalist teacher music education (Jeanneret, 1995; 1997; Hennessy, 2000; Holden & Button, 2006; Russell, 1996). Confidence can be affected by many factors, and researchers have worked to examine how these factors contribute to the overarching achievement of confidence in teaching music. Several researchers in the early 1990s explored the relationship between musical skill and confidence (Bresler, 1993; Gifford, 1991; 1993; Russell-Bowie, 1993). Musical skill, or a pre-service teacher's judgement of their musical skill, can affect confidence (Shuter-Dyson, 1999) and negative perceptions can arise from their past experiences in music education. Ruddock and Leong's (2005) study found that such negative perceptions can be related to an unsuccessful attempt to make music in their past or a lack of understanding of music or an inability to play an instrument. This was reflected in McPherson and McCormick's (2006) study, finding that self-efficacy was the most important predictor of achievement in music performance. Educators in the field of pre-service generalist teacher music education must combat a lack of resilient self-efficacy in music itself, which consequently impacts considerable on the confidence to teach music.

Underlying beliefs can influence confidence. Hennessy (2000) found that pre-service generalist teachers held the belief that the ability to teach music required 'gifts' in instrumental performance and music reading, which led to low expectations for their future

'non-gifted' students. This is linked with Mills' (1989) earlier work exploring the perceptions of music as a specialist discipline and Jeanneret's (1997) survey of 222 pre-service teachers in both Australia and the US, which revealed the belief by many of the subjects that music was inherited and not learnt. In Kritzmire's (1991) study, pre-service teachers' attitudes were traced back to their own primary school experiences, and the attitudes that were formed during this period were highly resistant to change. In particular, negative self-perceptions of musical abilities based on experiences in primary school influenced beliefs in the ability to teach music effectively (Bresler, 1993; Krehbiel, 1990; Saunders & Baker, 1991).

Levels of confidence have been linked with a student's concepts of competence and self-efficacy in the field of music education. Bartel, Cameron, Wiggins and Wiggins (2004) make the point that "confidence is meaningless if it is not accompanied by competence" (p. 3). Mills' (1991) study of 50 generalist teachers in the UK found that they rated their teaching competence lowest in music. Within pre-service generalist teacher training, pedagogical strategies and approaches to the acquisition of musical knowledge have been examined. This area of research has aimed to develop an understanding of the balance of learning about music while also learning about teaching music. Achieving competency in a subject area is made far more difficult if the student enters a course with a low level of subject knowledge and then receives minimum instruction in music education. In her report to the Music Council of Australia, Hocking (2009) surveyed 28 universities and found that on average only 16.99 hours were given to the study of music education in teacher-training programs. She found that 'there is a general expectation that *teachers need to know their content*' (Hocking, 2009, p. 4). Low levels of competence may come from pre-service teachers' backgrounds in music. Russell-Bowie (2002) gathered information in multiple countries and found that students in Ireland were twice as likely to play an instrument than those in Australia, Namibia and South Africa. The impact of the lack of instrumental experience was understood further in Kane's (2008) study in Australia's largest state, New South Wales, where even many of those pre-service teachers who had learnt a musical instrument confessed they were no longer musically active and had forgotten much of what they had learnt. The implications of this are many. Bartel et al. (2004) described this inconsistency within teacher training well:

When prospective teachers study the art of teaching language, science, or mathematics, they receive comprehensive methods instruction at the post-secondary level that builds on approximately twelve years of progressive study in each discipline. We would not allow someone who had stopped studying mathematics at the fifth grade level to teach mathematics. We would be appalled at the idea that someone could teach language arts if he or she had not read a book or written a word since the age of eleven. Yet we

expect that generalist teachers can teach music when their last formal musical instruction, if any, may have occurred at that age or earlier. (pp. 3–4)

Various pedagogical and systemic approaches have been researched with the concepts of confidence, competence, past experience and self-efficacy in mind. Austin (1991) along with fellow researcher Reinhardt (Austin & Reinhardt 1994; 1996; 1999) conducted several consecutive studies to improve the attitudes of pre-service teachers towards music education and accompanied this approach with the inclusion of more time in the music classroom for these students during their professional experience component of the course. In a literature review, Bird, Imms, Sinclair, Brown, Watkins, Jeanneret & Donelan (2006) found that the content of music education courses for pre-service generalist teachers was largely based on the professional judgement of lecturers. Furthermore, that judgement was based on what these professionals believe the teacher should know, rather than what they need to know (DeGraffenreid, Kretchmar, Jeanneret & Morita, 2004). This is an important distinction and may contribute to the findings in Gifford's (1991) study where participants' confidence lessened after a 12-week music course due to a perceived lack of relevance. Seddon and Biasutti (2008) explored the use of music technology, the remote facilitator and the 12-bar blues and found that it improved participant's perceptions of their own musicality. Heyworth (2011) explored the use of loops and moving from acoustic to digital music with a view to 'encourage and empower pre-service teachers to facilitate musical activities in their classrooms' (p. 42). Heyworth (2011) found that while this teaching strategy did break down many attitudinal barriers for the students, it may be more effective when coupled with tradition music making experiences.

Researchers have also examined the impact of all of these factors on generalist teacher approaches to music education in schools, as teachers' perceived beliefs, attitudes and self-perceptions can be seen to have a direct influence on how much and how well particular subjects or activities are taught by teachers (Guskey, 1988). Barnes and Shinn-Taylor (1988) found that almost half of the teachers they surveyed wanted to be relieved of all responsibility for teaching music. In Krehbiel's (1990) study, classroom teachers ranked the arts, including music, as the least important subject in the range of subjects they taught. In Bresler's (1993) three-year study of music instruction in three US elementary schools, she found that music activities were scant and only occurred sporadically, but more alarmingly that the majority of teachers did not teach any music. The barriers Bresler (1993) identified to the greater inclusion of music activities included 'teachers' lack of knowledge, resources, and appropriate structures within an overall climate of pressure for academics' (p. 1). This final factor points to the devaluing of music education within the subjects that are viewed as being more 'academic' in nature. Garvis and Pendergast (2010) examined the relationship between self-efficacy and arts education and found that:

there is a significant relationship between teacher self-efficacy [in the arts] and perceived support for subjects. . . . respondents in this study perceived a general lack of support for the teaching of the arts in their classroom, compared to English and maths. Many beginning teachers stated that schools provided greater financial support, assistance and professional development for the teaching of literacy and numeracy (typically described as English and maths), to increase school performance in national testing. (p. 18)

Currently, the research within the field of music education and the pre-service generalists is moving into the field in a number of directions. Wiggins and Wiggins (2008) completed a study investigating “what actually goes on in the classroom when generalist teach music” (p. 4). One finding from this study was that generalist pedagogical knowledge contributed to some of the more effective learning experiences that the researchers observed. Garvis and Pendergast (2010) have continued to examine the issues of generalist teacher’s concepts of self-efficacy in music education and the relationship between their initial teacher training and the provision and support for music education in their initial years of teaching. The mix of learning experiences within a pre-service generalist teacher-training course continues to be refined.

Stevens-Ballenger, Jeanneret & Forrest (2010) completed a study to put forward concrete recommendations about the knowledge and skills needed to teach music in the primary school. This study was in response to a series of reports and national reviews in Australia that highlighted ‘the need for the improvement of pre-service education in primary music but there is little in the way of concrete recommendations for this improvement’ (Jeanneret & Forrest, 2009, p. 85). The field is moving towards a greater understanding of how pre-service teacher training and the initial years of teaching are strongly connected with the standard and amount of music education that children are experiencing. With moves recently in Australia, the UK and the US for generalist teachers to deliver the majority of music education to children, this research is necessary to ensure the effectiveness and development of music education for pre-service teachers. In this environment, the effectiveness of music education courses for pre-service generalist teacher will have a direct impact on the levels of musicianship and aesthetic understanding of future generations.

### **Method**

The *Self-Efficacy across Arts Education* research project began as an evaluation tool. The instrument was used to inform the arts education teaching team of the areas that were of most concern, in terms of self-efficacy, to the pre-service ECP teachers. The research instrument was piloted during a period of smaller pre-service teacher cohorts (N=30-45) with a view to



expanding into a research project using the refined survey when larger student pre-service teachers (N=100-150) moved into the arts education units.

The purpose of the project was to compare self-efficacy across arts disciplines, with investigations into the possible relationship between personal arts skills and confidence to teach the arts, in line with Bandura's (1997) generative system of human competence, which sees confidence, motivation and self-knowledge as informing teacher's self-efficacy. The project also sought to identify a possible hierarchy, such as the most pressing or concerning areas of self-efficacy, specific to each arts discipline. It was hoped that these findings could identify specific issues to be addressed at the beginning of each arts unit, with a view to heighten self-efficacy further.

### ***Self-Efficacy Instrument***

The research instrument for the *Self-Efficacy Across Arts Education* project was based on Bandura's "Teacher Self Efficacy Scale" (2006, p.328). Bandura (1986) described self-efficacy as a mediating mechanism, negotiating between previous experiences that have contributed to our current level of personal agency and the introduction of new experiences and understandings. For the purposes of this study self-efficacy was the pivot point, the mechanism to recalibrate students' personal agency from a previous experience that may have been negative, to a positive future outlook of effective teaching practice. While self-efficacy as a social construct has been utilised extensively in educational research, it is only one measure of change. It is important to acknowledge the complexity of the educational environment and that the self-efficacy is but a part of a larger "theory of affect" (Pajares, 2003).

Four similarly worded surveys were created to reflect learning in four of the five arts disciplines (Dance, Drama, Music and Visual Arts). The fifth arts disciplines, Media Arts, was not surveyed at this time due to the current structure of the units where in which Media Arts is an integrated art across all four arts disciplines. The 10 question survey was divided into two sections; Section 1 measured pre-service teacher self-efficacy levels concerning their personal arts knowledge, skills and understandings and Section 2 measured pre-service teachers' self efficacy levels concerning the teaching of arts knowledge, skills and understandings. Questions were paired and then randomised across the two sections to explore if there was a connection between personal and professional (teaching) skills. An example of a paired question from the Drama survey was *create theatre using a variety of dramatic forms* (Section 1) and *get students to experiment with a variety of dramatic forms* (Section 2). Bandura's 100-point response rating scale was used in the surveys, a scale divided into 10 point increments with 10 described as *cannot do at all*, 50 described as *moderately can do*, and 100 described as *highly certain can do*.

A pilot study was conducted across two semesters in 2012-2013, which was during a period of course transition when the enrolments in the units ranged from 45-60 pre-service teachers. All survey instruments were evaluated for question type, clarity and internal validity, and a larger research project was conducted over four semesters (two cohorts for each survey) in 2013-2015 with enrolments of 120-150 pre-service teachers involved in the survey. Response rates were between 66-75% on all surveys, with the higher response rate experienced when the surveys moved to an online format. The research design used a pre-test, treatment (teaching intervention of 10 weeks) and post-test model. Analysis of the resultant data included average, median and standard deviation. Cohort results were also compared to confirm the consistency of the findings (e.g. similarity of the findings between the 2014 and 2015 cohorts).

### ***Teaching intervention***

The 10 weeks teaching intervention was based on both Bandura's social cognitive theory (1986; 1997; 2006) and research conducted specifically in the field of arts education for pre-service and novice teachers (Barbousas & Maras, 2009; Bird et al., 2006; Garvis & Pendergast, 2010, 2011; Collins, 2014; Hennessey, 2000; Jeanneret, 1997). Both semesters are divided in half, with pre-service teachers experiencing 15 contact hours in each of the four arts disciplines. Learning in each arts discipline was designed to encourage the pre-service teachers to move from passive class member (where tutors model best practice in each arts discipline and then deconstruct that practice with the pre-service teachers to develop their understanding of specific arts pedagogy) to active teacher (where pre-service teachers practise planning, teaching and evaluating small arts concepts multiple times to increase their confidence and embed their practice and understanding).

This design served to facilitate a community of practice (Wenger, 1999) amongst the pre-service teachers as their levels of ability in each arts discipline developed. This experiential approach was supported by purpose written texts that provided pre-service teachers with scaffolded and directly applicable development of their arts discipline terminology. Jeanneret (1997) identified the raising of arts discipline competence as a key factor in raising confidence, a concept that is a strong tenet throughout Bandura's work and also reflects Gardner's (2006) *Changing Minds* model. Gardner's model outlines the key stages and processes we go through when changing our mind on any topic or belief. It also points to the factors that can influence our willingness and motivation for changing our minds. While this model relates to anything from changing how we vote to our favourite brand of food, it resonates with Bandura's self-efficacy construct.

## Findings

The self-efficacy levels of the pre-service teachers prior to commencing the teaching intervention were all below 50, described in Bandura's response scale as *moderately can do*, with Dance and Drama below 40 and Visual Arts and Music below 50 (Figure 1). The standard deviation was notably wide for all arts disciplines at between 21-23. These findings reflected some assumptions made by the teaching team, who had identified Visual Arts as the arts discipline in which pre-service teachers expressed the highest levels of self-efficacy, although Music was higher than expected. It was noted that the difference between the personal and teaching skills was comparable in Drama and Music, but the pre-service teachers expressed slightly higher levels of self-efficacy in teaching Dance and Visual Arts than in their personal skills.

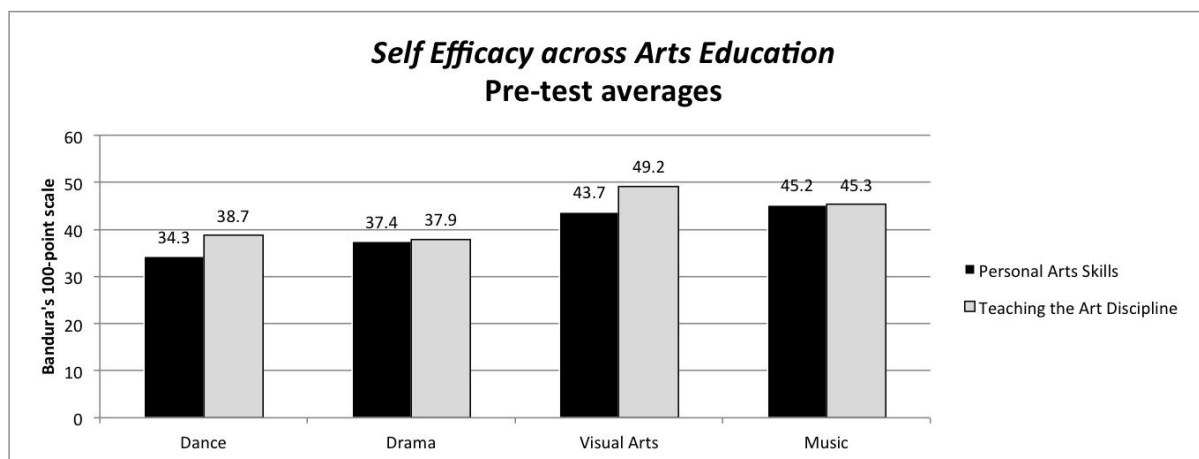


Figure 1. Comparison of pre-test averages

Within the pre-test results, a number of notable issues were identified. Across all arts disciplines, self-efficacy levels in the use of arts terminology, either personally or when teaching students, returned the lowest scores. This included verbal and written use of terminology. Results in this area were particularly low in Dance, averaged across the cohort at 26, which is one step away from *cannot do at all* on Bandura's response scale. In general, the paired questions across personal and teaching skills were very similar, between 0.2 and 3 points apart, indicating that a relationship between personal and teaching skills which impact on self-efficacy did exist.

During the 10-week teaching intervention, the arts teaching team were made aware of the pre-test self-efficacy results for their arts discipline. This allowed the tutors to address the areas of lowest self-efficacy. Across all arts disciplines tutors focused on modeling the use of, and

encouraging the pre-service teachers to use, specific arts terminology correctly. Additionally, as a result of the pre-test, each set of tutors focused on specific areas issues; singing and getting the pre-service teachers to sing confidently and in tune (Music), critiquing arts works and dance making confidently (Visual Arts & Dance) and creating theatre using a variety of dramatic forms (Drama).

The post-test results indicated that across all arts disciplines, the self-efficacy of the pre-service teachers had risen by 23-38 points on Bandura's response scale (Figure 2). On an average across the personal and teaching measures, the cohorts indicated a self-efficacy level in all arts disciplines between 70 and 80 on Bandura's response scale. An analysis of the course of change revealed that the two arts disciplines with the lowest self efficacy ratings in the pre-test (Dance and Drama) increased by a factor of 1.9-2.0, while self-efficacy in the two arts disciplines that were rated close to 50 or *moderately can do* increased by a factor of 1.4-1.6. The largest change was in the teaching skills in Dance and the lowest change was in the teaching skills in Visual Arts. This difference could be accounted for by the relative emphasis placed on the area of teaching in both the Dance and Visual Arts. A number of personal arts skills measures for Visual Arts were above 80 in Bandura's response scale and this was a reflection on the greater focus on art making that occurred during the intervention.

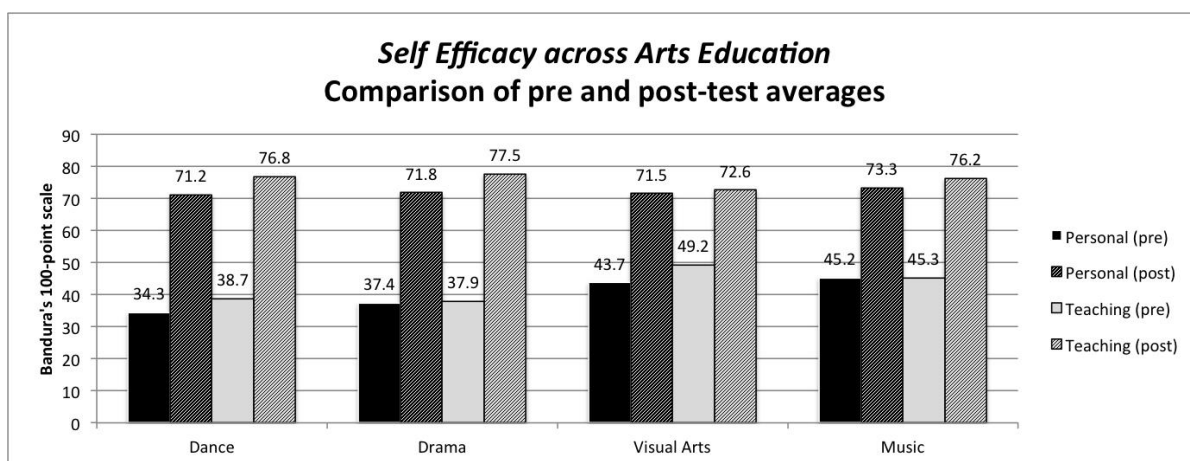


Figure 2. Pre and post-test comparison

## Discussion

The results of the *Self-efficacy Across Arts Education* study found that self-efficacy levels in all four arts disciplines could be raised to a comparable level, from differing starting levels. This increase could be accomplished through a teaching intervention that focused on improving the pre-service teachers' personal arts skills as a precursor to informing and extending their arts teaching skills. A significant focus on arts literacy and correct use of

terminology was a key factor in the initial stages of the intervention, and laid the groundwork upon which a sense of competence bolstered a sense of confidence in their personal and teaching abilities in the arts. This teaching intervention design is of course not unique but little research has been undertaken to look across a pre-service teachers' self-efficacy across arts disciplines. Therefore this finding has significance in both the Australian and international teacher education context as to the effectiveness of learning programs.

The very obvious question for the teaching team lay not in the level of improvement (we had observed this with previous cohorts) but in whether a self-efficacy level of between 70-80 on Bandura's response scale was enough. We had presumably provided enough competence to impact on the students' confidence, as Bartel et al. (2004) outlined, but was it high enough to change the level and quality of arts education in early childhood and primary classrooms? Within the scope of this study this could not be known, but it is an important question to pose. Can a 10 week, 15 hour, teaching intervention, guarantee quality arts education for the majority of children in Australian ECP education? Furthermore can this be guaranteed considering the significant deficits that the pre-service teachers enter the units with in term of previous knowledge, experience and personal preference and prejudice?

A study conducted by Garvis et al. (2011) in Australia found that it was not only the coursework components that influenced pre-service teachers self-efficacy in arts education; their experiences during their teaching practicums, and in particular the attitudes and modelling by their mentor teachers, also had a profound affect. This study also examined the quality, availability and interest of arts education professional development for in-service teachers and found that this was also a significant issue. Therefore the learning experiences within the specific key learning areas in a teacher education course are just one aspect of much larger picture for arts education for pre-service teachers. At every point in their development, prior to teacher training, during their teacher education courses in both coursework and practicum experience, and when the teachers commence their professional careers, the provision of arts education is not consistent, co-ordinated or at its very core, valued.

This issue brings to the fore the underlying tenant of the provision of arts education in ECP education in Australia; the notion that a generalist teacher can effectively deliver arts education in four, and even five, different arts disciplines. This tenant is built on the understanding that all students in Australia receive foundational and quality arts education in their own primary and secondary education, and that they can build upon this in their role as teacher. This understanding comes from explicit inclusion of arts education in the national curriculum since the early 1980s, however numerous large reviews have found that the provision of arts education is not effective or equitable across the country. The variety of the

provision across Australia for some 30 years could have led to the continual downward spiral of self-efficacy in arts education that begins in pre-service teacher educators' own educational experience (Garvis, Twigg & Pendergast, 2011). This is further complicated for Australian pre-service teachers who were educated outside Australia, and contend with different levels of arts education and often need to adjust a large proportion of their arts terminology to the Western Art tradition.

With these factors in mind, why does this model of generalist teachers' delivery of arts education persist? One reason is simply economic. Although the specialist arts teacher model does exist in schools, it is a costly option with specialists that are often employed on a fractional basis which under some management models can be seen as more cost than benefit. Multiply this issue by five arts disciplines and the provision of arts education can become a costly, and possibly questionable, investment.

Another reason could be one of value. Arts education is currently grouped as a single key learning area in the Australian curriculum, and during this curriculum's development, arts education advocacy and representative groups worked collegially to present a case for the collective strength of the arts. While this was a successful campaign, it also led to implementation questions and issues when the Australian Arts curriculum was released. In a typical primary school weekly timetable, arts education in all five arts disciplines was allocated 60-80 minutes per week, which led to questions of what quality arts education might look like with just 20 minutes per week (Topsfield, 2010). Currently many schools employ the *tapas menu* approach for arts education (one term of each arts discipline per year with Media Arts present in each arts discipline), or the *buffet menu* approach (where students elect which arts discipline they wish to take). There is a third approach, possibly the most concerning, where arts disciplines share many core concepts, and therefore one arts discipline can be interchanged for another, depending on the availability of arts experienced staff.

It is true that these approaches are not described in a flattering manner, and it is important to acknowledge that school leaders are working within tight resourcing and educational frameworks, and this a challenging situation in which to deliver high quality arts education to every one of their students. But it is a challenge, a challenge that could be eased by both recognition of the difficulties inherent in the current model of generalist teacher education in the arts and thinking outside the box, which arts educators do quite well.

### ***The Specialised Generalist Teacher***

Instead of a generalist ECP teacher being required to understand and teach all five arts disciplines, could they specialise? A study into pre-service generalist teacher music education (Collins, 2012) 57 participants were asked to rank their confidence in delivering Dance, Drama, Music and Visual Arts education. Participants regularly indicate a preference for two

out of the four arts disciplines, and this preference was based on their own primary and secondary educational experiences as well as their area of personal interest. If pre-service teachers are given the option to elect, or undertake initial testing, in two areas of arts speciality, based on experience and interest, they are likely to begin their teacher education units with a higher level of technical arts knowledge and vocabulary as well as a personal and driving interest in teaching those arts disciplines. It would also double the number of contact hours they would receive in each arts discipline, for example moving from 15 to 30 hours of contact, which would begin from a higher level of understanding and an intrinsic motivation to engage with the learning.

This approach may work for raising self-efficacy in specific arts disciplines, but what impact might this have on the teaching workforce and a school leaders job in balancing the arts specialists across a school staff profile? Could we have an overabundance of pre-service teacher with specialisations in Visual Arts and Drama and struggle to find a staff member to lead the Music program? This is a foreseeable possibility, but could be managed in a number of ways. School leaders could choose to provide one or two arts discipline through school staff and seek specialise teachers, or external arts programs in the arts disciplines, that the staff profile does not extend to or in-service teachers who have a particular interest in the arts may choose to train in a third arts area which could be supported by the school as a professional learning area. In rural and remote areas this model could also be challenging; however it would be an opportunity to require in-service teachers to up-skill in all arts areas over an appropriate period of time. This may be easier and less resource intensive than anticipated as arts professional use their knowledge from one arts discipline to understand another arts discipline. The higher the level of skill and understanding in one arts discipline, the easier and quicker it is to understand a new arts discipline. A basic underlying principle of the *specialised generalist teacher* is that quality provision of arts education within a school is preferable to an attempt to cover all arts disciplines with insufficient experience and knowledge.

### ***School based development***

As mentioned above, the experiences, modeling and attitudes that pre-service teachers experience during their practicums in arts education impact heavily on their self-efficacy. This is where the negative cycle highlighted by Gravis, Twigg and Pendergast (2011) should be addressed. Pre-service teachers have just experienced their arts discipline training and in many cases have greater levels of confidence and skill in these areas than their mentors. Instead of pre-service teachers being the apprentice to their mentor, they could well be expert in some arts areas. This is an opportunity to develop in-service teachers within the environment of their own classrooms, to model teacher as learner for their students and to act as a vehicle to rapidly develop communities of practice between pre-service teachers and mentors. This again

could be recognised as professional development for the in-service teachers, which in many Western educational context including Australia, is now a requirement for annual professional accreditation.

### ***Mandated in-service professional development***

The negative cycle continues and by only addressing pre-service teacher education issues, the cycle will take a several decades to redress. It would be beneficial to examine the extent of the self-efficacy of in-service teachers in arts education and undertake a national approach to lifting levels of self-efficacy across all of the ECP teaching profession. Integral to the success of such an approach would be recognition that a problem exists in the provision of arts education in ECP education and that the breadth and quality of arts education that each child receives is important and valuable to every child's academic and development.

Is there a fundamental issue lurking here concerning the value that is apportioned to arts education in schools, and by extension quality teaching in arts education? Currently in Australia there is a national scheme of literacy and numeracy testing and subsequent public reporting and comparison of those results. Understandably, this leads to a focus on these results, with the quality learning time in a school day being allocated to "core subjects", while the arts are regularly scheduled outside of this prime learning time. If arts specialists are present in a school, the time in the arts learning is used as release time for the classroom teacher, and a change to this format would mean release time would need to be negotiated differently in a schools' timetable. The result of all of these factors is that literacy and numeracy professional development is preferred over arts education professional development. Thus the negative cycle continues. If the provision of arts education is to be improved nation wide, then incentives or mandates would need to be in place to encourage wider uptake of arts education professional development in the ECP sector.

### ***Are we teaching arts or using arts?***

One final, niggling issue with the current model for pre-service teacher arts education is a lack of clarity about the purpose of units in arts education; is their purpose to equip pre-service teachers to teach the arts disciplines, or is it to give pre-service teachers strategies and ideas for teaching in other subject areas. In the initial arts skills sessions in the teaching intervention, tutors regularly highlight how different techniques could be used to teach science concepts, practise math problems or remember concepts such as the months of the year in order. This engages the pre-service teachers with the applicability of what they are learning in each arts discipline with their future practice of teaching. Yet the lack of contact time, and fundamental lack of background knowledge and skills, may lead to extrinsic rather than intrinsic use of arts education being at the forefront of the pre-service teachers minds. The



results of the *Self-efficacy across Arts Education* study may partly reflect this issue and should be investigated further.

### Conclusion

The continuum of learning and practice for a generalist teacher in arts education needs to be studied further to understand the many contributing factors to the provision of quality arts education. It would be beneficial to gather a more detailed history of each pre-service teachers' personal arts education, as well as test their current level of arts knowledge, to deepen the picture of the pre-test self-efficacy ratings provided. Similarly tracking the pre-service teachers' self-efficacy at intervals after each arts unit and during their novice period of teaching would provide data on the longevity of the arts knowledge, skills and attitudes that were provided during the teacher education course.

An astute pre-service teacher once turned to me in a class and said, with both wonder and frustration in her voice, "someone once said to me, primary teachers are a jack of all trades and master of none. You have shown me I need to be a jack-of-all-trades and master of them all. It seems impossible for anyone to do!" And maybe it is, for a pre-service teacher and for any teacher education course. A teacher education course is the beginning of a career, a basis, but absolutely not the mastery of all we need to know and be able to do as a professional educator. In this current model of generalist teacher education in arts education, this basis may not be enough upon which to build. This paper has suggested a number of approaches to this issue that could be implemented within the current government structures, teacher accreditation processes and teacher education courses. Ultimately the students that our pre-service teachers will be educating in the decades to come deserve the highest quality education we can help them provide. In the area of arts education, we can do better.

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### **About the Author**

Dr Anita Collins is an award winning Australian educator, academic and researcher in the area of music education, particularly in the impact of music education on cognitive development. Anita is a communicator, a conduit between neuroscientific researchers, music educators, musicians, parents and the general public, and works to update our understanding of the purpose and benefits of music education to overall cognitive development and health.

Anita is currently Assistant Professor of Music and Arts Education at the University of Canberra, has been a Visiting Lecturer at the Australian National University and continues her long association with Canberra Grammar School. Anita has worked as a primary and secondary school music educator in both Australia and England. Currently Anita is working with arts professionals and schools on a number of research projects. These projects are as diverse as commissioning a new musical work (*The Goulburn Concerto* by Sean O'Boyle) to give disadvantaged child musicians the opportunity to perform with professional orchestras to measuring the benefits of music education through standardised test scores.

In 2015 Anita was awarded the highly prestigious Barbara Matthews Churchill Fellowship to travel to the U.S. and Canada in 2016 to research ways that neuroscience researchers work with school and music programs. In 2014 Anita was involved with the TED.com network through two project; as author of a short animated film for TED Ed and as a presenter at TEDx Canberra. Both of these project have been very well received with the TED Ed film reached 14 million and TEDxTalk reaching 1 million views to date. Anita has also writes regularly for national newspapers and features in radio interviews and television documentaries.

Anita is a member of the Music Australia Advisory Group, the Music Trust Research Panel and a founding director of the ReWire Foundation.

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