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Geoff W. Lummis
g.lummis@ecu.edu.au

Julia Morris
Edith Cowan University

Annamaria Paolino
Edith Cowan University

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An Investigation of Western Australian Pre-Service Primary Teachers' Experiences and Self-Efficacy in The Arts

Geoffrey W. Lummis
Julia Morris
Annamaria Paolino
Edith Cowan University

Abstract: The arts are crucial in developing our multi-sensory interpretation of culture. With the introduction of the Australian National Curriculum in the arts, there is cause to reflect on teacher education courses, and pre-service teachers' ability to deliver the new curriculum. Reflection on students' experiences in the arts may provide insight into improving teacher education. A mixed methods study was conducted with first and fourth-year Bachelor of Education primary students at a Western Australian university, to determine students' arts experiences prior to and during the course. Fourth-year graduating students were also asked to reflect on their self-efficacy to teach the arts based on the course. Data were analysed using descriptive statistics, and interview observations are presented to contextualise these findings. The research emphasised the importance of building self-efficacy to support ongoing personal and professional engagement with the arts.

Introduction

The impending publication of the National Curriculum in the arts (ACARA, 2013) provided the impetus for reflecting on teacher education in the arts in Australia. Reflection on teacher education is vital as learning in the arts is important to developing students' sensory interpretation of the world around them (Anderson, 2003; Eisner, 2002). Humans transmit cultural understandings and narratives through artistic expression, interpreting and contributing to global discussions on culture, time and place (Anderson, 2003, 2004; Eisner, 2002; Freedman, 2003). Students need to have ongoing engagement with the arts to develop and refine their ability to interpret artistic expressions (Deasy, Catterall, Hetland, & Winner, 2002; Freedman, 2003). Furthermore, participation in the arts has been linked to improved problem solving and social development (Deasy et al., 2002).

As arts education is crucial to students' development, it is vital pre-service teachers are equipped with the skills and knowledge necessary to provide meaningful arts experiences. A Western Australian arts research group formed to investigate the arts experiences of students within the Bachelor of Education primary (B.Ed primary) course. The B.Ed primary course was investigated as these pre-service teachers may provide the first formal introduction to the arts experienced by Australian students. Both first and fourth-year students participated in the research, as these students had either just entered or were about to graduate the B.Ed primary course. The researchers' intended to explore the arts experiences of these student groups, and the students' preparedness to teach the arts upon graduating the course. Students' experiences were investigated across a range of contexts: the childhood home, primary school, secondary school, current recreation, and tertiary experiences. These findings could be used as an initial reflection on students' entering the B.Ed primary course, providing cause for pre-service teacher arts education that targets students' needs and a rationale for ongoing research in developing arts self-efficacy among pre-service teachers.

Significant Literature

The Impact of Education Reforms on Pre-service Teacher Education

Teacher education has been impacted by significant tertiary sector reforms since the 1980s. Prior to the 1980s, Australian tertiary institutions were viewed as necessary for imparting national cultural values and developing individuals who would contribute to national economy (Pick, 2006). However, since the late 1980s tertiary institutions have become increasingly more competitive as a result of globalisation and lowered government funding (Bessant, 2002; Marginson, 2004; Pick, 2006). The late 1980s is seen as the beginning of tertiary reforms due to the release of the Dawkins Report in 1988 (Bessant, 2002; Pick, 2006). John Dawkins, as the Federal Minister for Education, led tertiary reform in re-introducing fees for higher education and changing the educational profile of tertiary institutions (Bessant, 2002).

The Dawkins Report outlined the need for private funding to substitute cuts to federal public funding and saw the introduction of the Higher Education Contribution Scheme (HECS). Through HECS students were loaned fee payments, or could pay part of their tertiary education upfront and be loaned the remaining fees (Marginson, 2000). The change in educational profile was in response to globalisation, which Marginson (2000) defined as “the formation of world financial markets, the development of the Internet and the increase of international travel” (pp. 24-25). As globalisation increased, tertiary institutions were required to provide education that was marketed to meet students’ needs in a global world (Bessant, 2002; Marginson, 2000). As individuals (including students) had increased ability to move globally, there was a greater competitive edge for universities to gain students and the private funding they provide (Marginson, 2000; Pick, 2006). These issues are also highlighted in the Nelson Report (2003) which increased privatisation of universities responding to market needs (Pick, 2006).

The educational reforms across the wider tertiary sector have had implications for teacher education. Changes in teacher education have also been in response to changes in the primary curriculum in Australia, including Western Australia (WA) (Dinham, 2007). In 1998, the implementation of the WA Curriculum Framework for the arts shifted from arts specialists to generalist teachers (Dinham, 2007). The WA Curriculum Framework, currently used in WA prior to the release of the National Curriculum, grouped five subjects within the arts learning area: dance, drama, media, music and visual arts (Curriculum Council, 1998). However, generalist teachers often had limited tertiary education in the arts and entered tertiary institutions with limited arts knowledge and engagement (Alter, Hays, & O’Hara, 2009; Dinham, 2007). A ‘crowded curriculum’, in which greater outcomes were placed on teaching content in the curriculum, placed further pressure on teachers to actively engage students across all five arts subjects alongside the demands of other learning areas (Berlach & McNaught, 2007; Berlach & Power, 2005; Lemon & Garvis, 2013).

The introduction of outcomes-based education and international standardised testing also centred educational goals on improving literacy and numeracy, having an impact on the arts and aesthetic learning (Berlach & McNaught, 2007; Oreck, 2004; Paolino, 2013; Webster & Wolfe, 2013). Down (2006) states the political nature of standardised testing, and the emphasis of standardised testing over the development of subject discipline knowledge. These concerns have been reflected by primary principals (Australian Primary Principals’ Association, 2007), as discussed by Paolino (2013). With the pressures of standardised testing in primary schools, and a market-driven tertiary sector, tertiary institutions have little incentive to promote the arts within teacher education courses (Garvis, 2008). If tertiary institutions follow market demands teacher education courses may marginalise the arts for other curriculum demands, and as such, they risk graduating teachers who have limited arts experiences prior to entering university and who may graduate pre-service teacher courses

with limited ability or self-efficacy to successfully teach the arts as a result of their tertiary education (Dinham, 2007; Lemon & Garvis, 2013).

The Arts as an Essential Learning area

Graduate teachers who have limited skills, knowledge or self-efficacy to teach the arts are a significant concern for education for a number of reasons. Learning in the arts helps to develop sensory perception of culture, support social and cognitive development, and foster critical thinking and problem solving (Anderson, 2003; Deasy et al., 2002; Eisner, 2002; Freedman, 2003; Seeley, 2006). These skills are part of developing individuals who are equipped to navigate a globalised world, increasingly filled with technology and diverse cultural situations to navigate (Deasy et al., 2002; Freedman, 2003; Ingalls Vanada, 2013).

The arts are a medium through which students can explore “our sense of self, our sense of place, our sense of community ... it [art] is not the end in itself” (Anderson, 2003, p. 64). The five arts subjects link to various intelligences described by Gardner: for example, drama develops bodily-kinaesthetic and linguistic intelligences, while visual arts develops bodily-kinaesthetic and spatial intelligences (Gardner, 1999, 2006). All arts subjects have the ability to develop both intrapersonal and interpersonal intelligences through introspection of self and artistic collaboration with others (Deasy et al., 2002; Gardner, 1999, 2006). Through the development of intrapersonal and interpersonal intelligences, the arts also support the social development of students (Deasy et al., 2002). Furthermore, the arts assist cognitive development through enhanced sensory perceptual experience, building stronger neurological networks linking sensory perception to philosophical and social understandings (Arnheim, 1969; Eisner, 2002; Seeley, 2006; Slotnick, 2012).

The arts also support the development of critical thinking. As students create in the arts they become agents of change and learn to manipulate their environment through being “generative, creative, proactive, and reflective, not just reactive” (Bandura, 2001, p. 4). Students who develop these characteristics have a greater ability to problem solve and adapt when faced with prescribed task demands (Bandura, 2001; Lindström, 2011). In aesthetic arts experiences students learn through process, not product, developing increased motivation to learn and critical reflection skills (Webster & Wolfe, 2013).

While the arts are essential for students’ development (Eisner, 1978; Ewing, 2010), it is necessary teachers have the same skills and are equipped with the discipline and pedagogical content knowledge to effectively deliver the arts curriculum. Research suggests teachers’ self-efficacy in the arts, founded on mastery of skills and knowledge, influences the likelihood of engaging teaching and learning experiences in the arts (Bandura, 2001; Garvis & Pendergast, 2010; Lemon & Garvis, 2013). As such, it is important for teachers, including pre-service teachers, to be engaged in the arts and build the necessary self-efficacy to deliver the arts to primary school children.

Teacher Self-efficacy and Engagement in the Arts

Self-efficacy is a theory of self-regulation, in which an individual’s beliefs produce action resulting in outcome expectations (Bandura, 2001). Recent research into teacher self-efficacy has found that teachers with poor self-efficacy in the arts limited or ignored the arts in their classroom (Garvis & Pendergast, 2010; Lemon & Garvis, 2013). Self-efficacy is built through engagement in the arts. Positive experiences that build personal interest in the arts lead to high self-efficacy (Garvis, 2008). Furthermore, perceived mastery of skills impacts on intrinsic motivation and builds self-efficacy through confidence of discipline knowledge (Bandura, 2001; Bandura & Locke, 2003; Ryan & Deci, 2000). However, some teachers are

anxious about their mastery of arts skills and this impacts on their self-efficacy and use of arts in the classroom (Garvis, 2008; McKean, 2001).

The strong relationship between arts experiences promoting mastery of discipline content knowledge and self-efficacy suggests teachers would benefit from increased positive engagement in the arts. As there is a link between school curriculum and the market demands of tertiary institutions, it is possible that change at a tertiary level would result in teachers who are more prepared to successfully deliver the arts curriculum. However, engagement in the arts (in this case, at a tertiary level) can be impacted by students' prior experiences within both personal (home and recreation) and educational (primary, secondary and post-compulsory) contexts (Fredricks, Blumenfeld, & Paris, 2004; Garvis, 2008; Garvis & Pendergast, 2010; Oreck, 2004).

Engagement in the arts at a tertiary level requires teaching basic skills that may have not been covered in pre-service teachers' prior education (Dinham, 2007). Oreck (2004) and Garvis (2008) both found teachers, and in particular generalist primary teachers, required more opportunities to engage in professional learning that allowed them to develop practical arts skills, giving teachers mastery that translated into the self-efficacy to take appropriate creative risks in teaching the arts. However, pre-service teacher engagement, as with student engagement, is premised on creating a learning environment in which pre-service teachers feel supported to take learning risks based on positive relationships with teachers, peers and family (Appleton, Christenson, Kim, & Reschly, 2006; Oreck, 2004). If tertiary institutions provide practical skills and knowledge that result in discipline mastery, teachers are likely to have increased self-efficacy and create more opportunities to engage their students in the arts (Lemon & Garvis, 2013).

Background to the Study

The arts research group noticed the gradual decline of arts instruction time within the primary teacher education courses at one Western Australian university. The decline of arts instruction is documented in the University's handbooks over the past 30 years, as the course changed from a Diploma of Teaching to a Bachelor of Arts (Education) and finally a Bachelor of Education. Further arts units were offered for teachers who completed conversion courses to upgrade from Diploma to a Bachelor of Education. Prior to the Dawkins Report (1988), there were between 22 and 26 tenured staff across the Art and Music departments (Western Australian College of Advanced Education, 1985, 1987). The pre-service teachers in the three year Diploma of Teaching studied two core units (four hours per week), one in music and the other in visual arts; and could complete an additional two elective arts units (Western Australian College of Advanced Education, 1985, 1987). Music and visual arts were emphasised as they were the only two subjects listed under the arts learning area in the school curriculum, with the other arts subjects being included in other learning areas, reflecting the Beazley Report (1984) (Beazley, 1984; Education Department Curriculum Branch, 1975; Lummis, 1986). Dance was included in health and physical education, which had 30 staff members prior to the release of the Dawkins Report (Western Australian College of Advanced Education, 1985). Drama and media were listed under English studies, and were accommodated by the 56 staff in Communications Education (Western Australian College of Advanced Education, 1985). Further arts units were offered to Diploma students who, after a year of full-time teaching experience, could pursue ten units to fulfil a Bachelor of Education (Primary) (Western Australian College of Advanced Education, 1987).

After the release of the Dawkins Report the primary teacher education course changed from the Diploma into the Bachelor of Arts (Education). The staff numbers in the Art and Music departments was reduced from 15 to 7; however, the number of units

remained the same (Edith Cowan University, 2002; Western Australian College of Advanced Education, 1990). By 2002, drama had become an elective unit alongside visual arts and music (Edith Cowan University, 2002).

While diversity in the arts units offered continued to increase after the release of the Nelson Report (2003), staffing remained static. In the school curriculum, teachers were expected to deliver all five arts subjects as indicated by the curriculum framework (1998): dance, drama, media, music and visual arts (Curriculum Council, 1998); however, not all these subjects had core arts units in teacher education courses. Core units in the arts had increased to four units; a multi-arts unit, and drama, music and visual arts units (three hours per week) (Edith Cowan University, 2005). By 2008, there were five tenured staff members across all arts subjects; and additionally, the arts units had declined to three core units (drama, music and visual arts, delivered as three hours per week) and one elective unit from a choice of three (drama, music and visual arts) (Edith Cowan University, 2008). The three elective arts units were only offered if minimum enrolments were met, and were considerably less diverse than those offered pre-Dawkins.

In 2013, the arts offerings included dance in addition to drama, music and visual arts (Edith Cowan University, 2013). The time allocation for arts instruction had decreased to four rotations of dance, drama, music-media and visual arts, offered in five-week programs across two core units (two hours per week) (Edith Cowan University, 2013). The decline of arts instruction time, and increased subjects to deliver within this time, raised concerns in the arts research group that students would begin and graduate their pre-service teacher education with limited knowledge in the arts as presented by Dinham (2007). Such findings were the catalyst for the investigation into pre-service teachers' arts experiences and self-efficacy. The arts research group could use knowledge of students' arts experiences to ensure arts teacher education meets the needs of pre-service teachers, increasing their self-efficacy to successfully deliver the National Curriculum in the arts.

Methods

In response to the situation of the arts in the university, the arts research group posed two research questions for investigation:

1. What arts experiences have first and fourth-year B. Ed primary students participated in, within the following contexts:
 - a. Childhood home,
 - b. Compulsory education (primary and secondary),
 - c. Post-compulsory education (tertiary), and
 - d. Current personal recreation.
2. How prepared are fourth-year B. Ed primary students to teach the arts as a result of their teacher education course?

To answer these questions, the arts research group administered an online Qualtrics questionnaire to both first and fourth-year B. Ed primary students in 2013. Approval was obtained from the University's Human Ethics Research Committee, prior to the students being contacted to take part in the questionnaire. At the completion of the questionnaire, students were invited to volunteer for a follow-up interview. An explanatory mixed methods research design was used to triangulate quantitative data with qualitative data (Punch, 2009), and to gather specific feedback on students' experiences through interview narratives. The explanatory mixed methods study was conducted within a constructivist theoretical framework. Constructivists' position of reality is an ensemble constructed by social groups reaching a consensus of knowledge (Guba & Lincoln, 2000). The notion of arriving at meaning is central to this epistemology. The epistemology involves a dynamic meaning as a

result of careful assimilation of new knowledge with individual beliefs, values and concepts (Guba & Lincoln, 2000). Constructivism was central to the researchers engaging the B.Ed primary students through both the questionnaire and interviews to build shared meaning of the students' arts experiences.

The questionnaire and interviews were centred on exploring students' prior experiences with the arts. In considering students' self-efficacy to teach the arts, students' past experiences were considered important in motivating their active participation (or lack thereof) in arts during pre-service teacher education. The research was an initial investigation supporting ongoing reflection of the arts in Australian teacher education and the construction of instruments to measure students' experiences in the arts, both within and external to teacher education.

The intent of the questionnaire was to document the range of students' experiences in the arts across the following contexts: childhood home, compulsory and post-compulsory education, and current personal recreation. Additionally, fourth-year students were asked to rate their self-efficacy, subject and pedagogical content knowledge as a result of their teacher education course. The questionnaire was organised into sub-sections by arts subjects (dance, drama, media, music and visual arts) with ACARA's definition of the arts subjects in the draft National Curriculum (ACARA, 2013) being listed prior to each section. Prior to data collection, the questionnaire was piloted with third-year B.Ed primary students to check for comprehension and validity. The pilot data were used to measure the internal consistency of the questionnaire through a Cronbach coefficient alpha completed on multi-scale items (Cohen, Manion, & Morrison, 2011). The coefficient alpha was over 0.80 for all sub-sections, and only minor feedback from students regarding language was addressed.

Month	Data collection tasks
March	Pilot test conducted for all instruments Refinements made to instruments based on feedback and initial reliability testing (Cronbach alpha coefficient)
April - May	Questionnaire administered to first-year B.Ed primary students (post mid-semester break: 21 April)
May - July	Fourth-year students completing final teaching practicum
August-September	Interviews conducted with first-year B.Ed students Questionnaires administered to fourth-year B.Ed primary students
October-November	Interviews conducted with the fourth-year B.Ed primary students

Table 1: 2013 data collection process for questionnaire and interviews

Table 1 outlines the data collection process. The first-year students' participation in the research occurred in Semester 1, 2013, prior to the students partaking in any arts-based units within the B.Ed primary. The fourth-year students' completed the questionnaire and follow-up interviews in Semester 2, 2013, after they had completed their final teaching practicum. These times were chosen as the researchers did not want the first-year student data to be influenced by arts participation within the course; furthermore, collecting fourth-year data on completion of their practicum gave fourth-year students the ability to reflect on their teacher education arts experiences in light of their arts teaching experiences during the practicum. A comparative number of first and fourth-year students participated in the questionnaires, representing 18% of first-year students (n = 108) and 16% of fourth-year students (n = 25). Seven first-year students participated in the follow-up interview, of which five were female and two were male. Only two female fourth-year students were interviewed.

Demographical information was recorded from the questionnaire. Of the first-year questionnaire sample: 93% of respondents were female; 72% were between 17 and 25 years of age; and 2% were of Aboriginal or Torres Strait Islander descent. In addition, 65%

attended government primary schools; 51% attended government secondary schools; and 74% of respondents had no post-secondary awards prior to commencing the B.Ed primary course. In the fourth-year student sample 92% were female; 40% were between 17 and 25 years of age, 24% were between 26 and 30 years of age; and no students were of Aboriginal or Torres Strait Islander descent. A total of 60% of fourth-year students attended government primary and secondary schools; 44% of respondents had no post-secondary awards and 32% had TAFE qualifications prior to commencing the B.Ed primary course.

Findings from both first and fourth-year students are presented to discuss students' experiences, self-efficacy and potential implications for Western Australian teacher education in the arts.

Quantitative Findings

The questionnaire was developed to document students' experiences with the arts prior to entering university. Fourth-year students also responded to questions regarding the arts within their B.Ed primary course. The first and fourth-year findings are presented comparatively, according to the contexts investigated; however, the discussion section elaborates on first-year and fourth-year students' findings independently.

Table 2 shows students' responses to childhood engagement with arts in the home. With the exception of music, most students disagreed with the statement, suggesting a low engagement with the arts in the home. The fourth-year students had a slightly higher mean across most of the arts disciplines, while first-year students' had a slightly higher engagement with media arts. The higher engagement in media arts could be linked to age, as 72% of first-year students were between 17 and 25 years old, while only 40% of fourth-year students were between 17 and 25 years old, with the remaining 60% of students being over 26 years of age.

Arts subject	1 st year students	4 th year students
Dance	2.74 (Disagree)	2.88 (Disagree)
Drama	2.75 (Disagree)	2.84 (Disagree)
Media arts	2.80 (Disagree)	2.50 (Disagree)
Music	3.26 (Agree)	3.32 (Agree)
Visual arts	2.73 (Disagree)	2.84 (Disagree)

Table 2: Mean response to "When I was a child I had lots of Arts experiences at home"

While both groups of students' reported having limited arts experiences in the home, these experiences appeared to impact on their value of the arts (table 3). Again, music had the most impact across both first and fourth-year students. Media arts had a low impact for the fourth-year students, which again could be linked to age and the prevalence of digital technologies. Overall, the fourth-year students reported a higher mean value of the arts based on their childhood experiences.

Arts subject	1 st year students	4 th year students
Dance	2.41 (Moderate)	2.56 (Moderate)
Drama	2.37 (Moderate)	2.36 (Moderate)
Media arts	2.27 (Moderate)	1.92 (Low)
Music	2.99 (Mod-High)	3.08 (High)
Visual arts	2.23 (Moderate)	2.48 (Moderate)

Table 3: Influence of childhood Arts experiences at home on value of Arts disciplines

In addition to exploring the home context, both groups of students were asked about their engagement with the arts in primary school. As both positive and negative experiences in activities impact on self-efficacy and an individual's sustained engagement with a task

(Bandura & Locke, 2003), a positive arts experience could lead to higher long-term engagement with the arts personally and professionally. Table 4 documents both groups' responses to enjoyment of the arts in primary school. Music and visual arts had positive responses from both groups of students ($M = >3$, $SD = <0.92$). In addition, fourth-year students responded as enjoying dance in primary school ($M = 3.1$, $SD = 0.81$). Overall, first-year students had a lower mean response to the arts than the fourth-year students.

Arts subject	1 st year students	4 th year students
Dance	2.80 (Disagree)	3.08 (Agree)
Drama	2.80 (Disagree)	2.76 (Disagree)
Media arts	2.83 (Disagree)	2.52 (Disagree)
Music	3.26 (Agree)	3.16 (Agree)
Visual arts	3.16 (Agree)	3.28 (Agree)

Table 4: Mean responses to the statement: *I always enjoyed Arts disciplines in primary school*

Due to the responses in table 4 and Bandura's self-efficacy theories (Bandura, 2001; Bandura & Locke, 2003), the level of achievement in secondary school arts was considered important. It was anticipated the level of achievement in secondary school would correspond with the level of enjoyment perceived in primary school; however, the data did not indicate a relationship between these items. Most students did not participate in the arts at secondary school. The figures presented in table 5 show the mode value of students who did participate in secondary school arts. The fourth-year students had enjoyed dance in primary school, yet only two students (8%) reported studying dance at secondary school. The first-year students showed the opposite, with 11 students (10%) participating in dance until Year 12, despite a low enjoyment of dance in primary school. Music, which had the highest level of enjoyment in primary school, was not widely undertaken in senior school (years 11 and 12) by either group of students. Overall, visual arts had the strongest participation level, with 28% of both first and fourth-year students undertaking visual arts until year 10.

Arts subject	1 st year students	4 th year students
Dance	Year 12 (10%)	Year 12 (8%)
Drama	Year 10 (18%)	Year 12 (16%)
Media arts	Year 10 (23%)	Year 9 (16%)
Music	Year 10 (14%)	Year 9 (20%)
Visual arts	Year 10 (28%)	Year 10 (28%)

Table 5: Mode values of highest year level achieved in secondary school arts subjects

The questionnaire also documented current arts participation, in addition to students' prior experiences. Current experiences tracked students' participation post-compulsory schooling, and personal arts experiences were investigated as a potential indication of likelihood to engage in professional arts learning at university. Table 6 documents the percentage of students who currently partake in arts activities external of university study. Media arts based activities were most frequent discipline engaged, although it is possible students' were responding to *media* as entertainment rather than media arts as defined by ACARA (2013), despite ACARA's definition being provided on the questionnaire. The next most frequently engaged arts disciplines were visual arts (for fourth-year students) and music (for first-year students). The least engaged arts discipline was drama, which was consistent across both groups.

Arts subject	1 st year students	4 th year students
Dance	32.40%	36.00%
Drama	24.10%	20.00%
Media arts	61.10%	64.00%
Music	41.70%	36.00%

Visual arts	27.80%	40.00%
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Table 6: Quantity of students who currently participate in recreational arts experiences

Subsequent to measuring frequency of current arts engagement, the students were asked to indicate the amount of time they spend engaging in the arts per month. Generally, students indicated a moderate engagement across most disciplines. Music had the highest engagement by both groups, although it is possible music is engaged as entertainment as per media arts. Students spent the least amount of time participating in drama; and fourth-year students also showed a low engagement with dance, consistent with the limited secondary school participation.

Arts subject	1 st year students	4 th year students
Dance	2.67 (Moderate)	1.89 (Low)
Drama	1.69 (Low)	1.40 (Low)
Media arts	2.42 (Moderate)	2.36 (Moderate)
Music	2.96 (Mod-High)	2.89 (Moderate)
Visual arts	2.00 (Moderate)	2.00 (Moderate)

Table 7: Mean quantity of current recreational arts time per month

In addition to investigating prior experiences, fourth-year students were asked to rate their preparedness to teach the arts in primary schools as a result of their university degree. Students were asked to rate their self-efficacy, pedagogical content knowledge and subject content knowledge, as indicators of their preparedness. The graph below shows the fourth-year students' ratings for these criteria across all five arts disciplines. The graph shows the students' mostly disagreed or strongly disagreed ($M = <3$, $SD = <1.00$) with the following statements:

1. I feel confident to teach visual art to primary children.
2. I feel my university degree has given me the pedagogical content knowledge (e.g., strategies and techniques to teach [arts discipline], curriculum knowledge and knowledge of students) necessary to teach [arts knowledge] to primary children.
3. I feel my university degree has given me the subject content knowledge (e.g., [arts discipline specific skills/knowledge]) necessary to teach [arts discipline] to primary children.

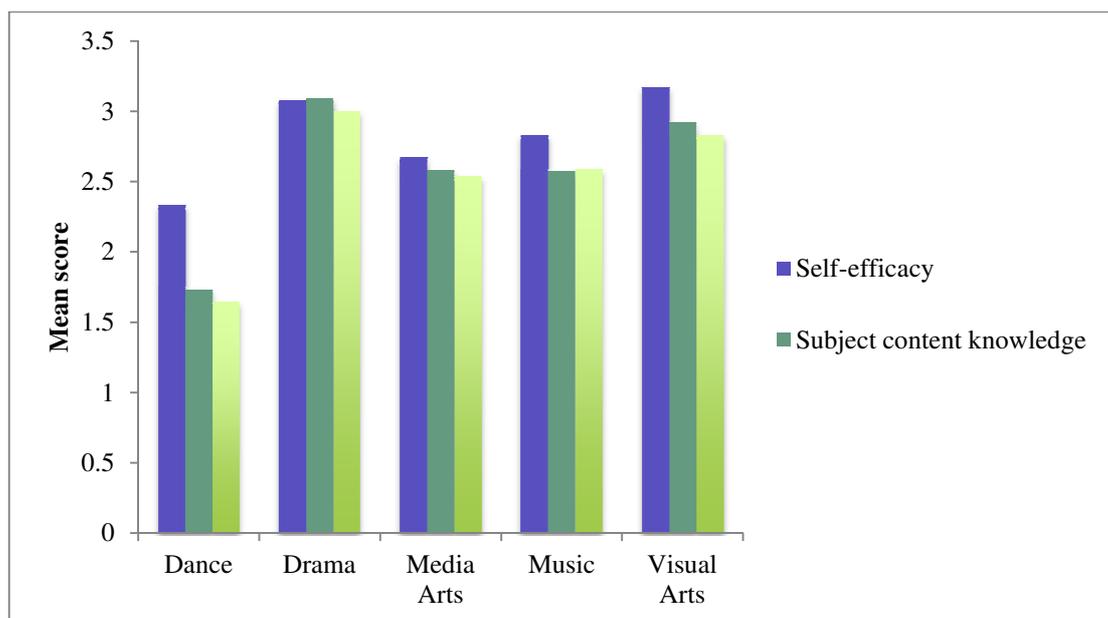


Figure 1: Mean scores of fourth-year students' preparedness to teach the arts

Overall, the fourth-year students indicated they felt most prepared to teach drama and visual arts. The students felt least prepared to teach dance across all three statements. Interestingly, media arts was not the lowest discipline ranked, despite the students not being offered any formal education in media arts during their B.Ed primary course. Again, the students' self-efficacy regarding media arts could be linked to their self-efficacy using technology generally as opposed to arts-specific engagement; however, further investigation is required.

Qualitative Findings

At the conclusion of the questionnaire, both groups of students were invited to volunteer for a follow-up interview. The interviews were embedded to triangulate the quantitative data; however, a small number of students volunteered to participate. A total of seven first-year students, and two fourth-year students were interviewed. The small sample size limited the reliability of the interview data; however, some observations from the students have been included to contextualise the quantitative findings. Further investigation with a larger sample is required to construct reliable themes within the interview data.

The seven first-year students all discussed the importance of a supportive family environment in encouraging participation in the arts. One student reflected on her family's role in sustaining her interest in the arts:

My family always kept my artworks and [put] them on the fridge so always ... they've never pushed me into the academic direction. They said if you enjoy it do it, so that's what I've done ... My parents always praised and encouraged ... my parents' encouragement and support helped me to pursue it more and get better at it... (Judy)

However, a fourth-year student contrasted Judy's reflection, saying: *No, my family have not influenced me at all ... all my experiences have been from outside (Gail).*

The first-year students had a range of primary school arts experiences, reflecting the range of mean values found in the quantitative data. Some students enjoyed the arts in primary school: for example, Salvador said, "*at school we put on plays ... I'd always participate in that. It was fun. I enjoyed it*". The fourth-year students did not discuss their school experiences in the arts, beyond one student stating school friends had a greater influence their arts participation than specialist arts teachers.

All the interviewed students discussed current participation in the arts, generally linked to family activities: for example, one first-year student discussed taking her daughters to the ballet and another takes his wife to museums and exhibitions. The fourth-year students did not discuss current arts participation in depth, although one student said she tried to broaden her child's musical experiences by listening to a range of genres.

In addition, the fourth-year students were asked about their university arts experiences. Overall, their arts were positive:

[The] Visual Arts ... unit was really practical ... Hard work, but practical. It gave the basic skills to get in and do an Art lesson, and feel confident that I sort of know what I'm doing. (Gail)

However, the two students commented that personal preference to specific arts disciplines influenced their university experiences. These students discussed feelings of discomfort when presented with unfamiliar content, such as classical music (as opposed to popular music) or when asked to perform in dance and drama. The students commented self-efficacy influenced their likelihood to undertake or teach arts activities. Again, more investigation is required into the relationship between self-efficacy and teaching the arts, and the role of teacher education courses in building or sustaining self-efficacy in the arts for pre-service teachers.

Discussion

The findings from the 2013 research suggested first-year students have limited experiences in the arts prior to entering the B.Ed primary. With the exception of music, first-year students had restricted exposure to the arts at home. However, the influence of these experiences on students' value of music was high. Prior personal experiences in which students feel mastery and receive ongoing encouragement is important in building students' self-efficacy (Bandura & Locke, 2003; Lemon & Garvis, 2013). The first-year students' connection of exposure to music in the home and its influence on their value of music supports self-efficacy theories. In primary school, first-year students reported enjoyment of music, and additionally visual arts (which was not widely experienced at home). While students enjoyed these subjects, they maintained a lowered exposure and enjoyment of the other arts disciplines. However, arts engagement at secondary school did not follow the pattern of the previous data. Dance had the highest level of achievement, with 10% of students completing year 12 dance, while year 10 was the most frequently completed year level across the other arts disciplines. It is important to note that these frequencies did not include students who did not participate in secondary school arts, of which there was an overwhelming majority.

The diminished participation in the arts during both primary and secondary schooling was reflected in current arts participation. Media arts proved to be the most popular arts discipline engaged during recreation; however, the purpose of students' engagement in the arts is unclear and requires further investigation. With the exception of music, students only spent a moderate amount of time per month experiencing arts-based activities, and interview data suggested these activities were family-based, with students who were parents focusing on engaging their children in the arts. Again, further investigation is required to determine students' intention for arts participation. However, the interview discussion regarding students who were parents and their desire to engage their own children in the arts may transform to a professional consideration to engage students' in the arts. If so, this is encouraging for future teachers' response to the arts in Western Australian schools. Self-efficacy theories suggest prior experiences impact on future engagement in the arts, personally and professionally (Lemon & Garvis, 2013). The researchers therefore suggest first-year students' experiences will have a causal relationship in their engagement of the arts within both their B.Ed primary course and as a consequence these experiences will need to be considered by pre-service teacher arts educators.

The fourth-year student findings were marginally more positive. Like the first-year students, fourth-year participants had limited exposure to the arts at home, with the exception of music. Again, these experiences appeared to have a significant influence on the students' value of music. However, the fourth-year students enjoyed experiences in dance, music and visual arts in primary school, with dance and visual arts not having positive responses until primary school engagement. Dance and drama were completed at year 12 levels for 8% and 16% of students respectively. The diversity of arts engagement across the home, primary and secondary school contexts suggests students do not necessarily need to engage with the arts from an early age to develop an interest in the arts. One fourth-year interviewee supported this conclusion by stating her interest in the arts was acquired through school and not family influences. The student's reflections confirm literature stating sustained engagement in a task is resultant of intrinsic motivation, in which the individual sees a personal significance and success in completing the task without external reward (Marks, 2000; Ryan & Deci, 2000).

Furthermore, the fourth-year students had higher recreational experiences overall when compared with the first-year students. Fourth-year students also showed strong

engagement with media arts; however, as previously mentioned, the purpose of engagement needs to be investigated. However, despite the higher quantity of fourth-year students participating in the arts, the time spent per month participating in the arts was lower than the first-year students. Music was the most frequent discipline experienced, followed by media arts and then visual arts, with a moderate amount of time engaging in these disciplines being reported. The limited time spent engaging in the arts could be due to a number of factors: for example, work and family constraints are likely due to the older demographic of fourth-year students, however these factors require further investigation.

Fourth-year students were also asked to rate their university experiences in the arts, in terms of acquiring subject and pedagogical content knowledge, and self-efficacy. The students reported feeling most confident to teach drama and visual arts; with the fourth-year interviews suggesting these units at university had considered the practicalities of teaching the arts in primary school, and gave students the basic skills required to introduce the arts to primary school students. It is likely students felt confident in teaching drama and visual arts due to the link between mastery of skills and self-efficacy (Lemon & Garvis, 2013). The perceived realisation of practical skills is likely to have increased students' feeling of subject and pedagogical content mastery and therefore, self-efficacy. However, the questionnaire data suggested the fourth-year students did not feel prepared to teach dance, drama and media arts in primary schools. These data are alarming, as Bandura and Locke (2003) suggest negative experiences lead to poor self-efficacy and diminished time spent practising the task. Subsequently, poor self-efficacy in these arts disciplines could mean these graduate teachers spend less time teaching these disciplines to primary school children and may perpetuate a cycle of limited school-based arts experiences.

Conclusion

The research concluded students generally had limited arts experiences prior to entering the B.Ed primary course. When students did have exposure to arts activities it generally had a positive influence on their value of the arts, although a statistically significant relationship would only be concluded after further investigation on a larger sample. The fourth-year students had a particularly diverse range of arts disciplines experiences across the home, primary and secondary school contexts. The range of experiences suggests arts intervention could be successful at any time, although literature suggests this intervention needs to build intrinsic motivation to be successful long-term (Marks, 2000).

The fourth-year student data on self-efficacy at the conclusion of their B.Ed primary course is particularly concerning. Theories suggest individuals with poor self-efficacy will attribute a negative association with the task and not continue to partake in the activity (Bandura & Locke, 2003). If students leave the B.Ed primary course with poor self-efficacy in some or all of the arts disciplines, there is a danger they will minimise arts instruction time in their teaching. Subsequently, it is crucial for universities to ensure students' leave teacher education courses with high self-efficacy. Additionally, high-self efficacy is associated with the mastery of skills and knowledge (Bandura, 2001; Marks, 2000) and could be considered an indication of students' mastery in the arts as a result of teacher education. The National Professional Standards for Teachers in Australia outlines graduate teachers "must know the content [of each subject area] and how to teach it" (AITSL, 2011). If graduate teachers do not feel they have mastered both subject and pedagogical content knowledge, universities may be graduating teachers who are at risk of not meeting the National Standards.

The response by the fourth-year students suggests practical, skills-based instruction that focuses on subject and pedagogical mastery is required to adequately prepare students' to teach the arts. However, time constraints within the teacher education course limit arts instruction. In-depth instruction required for mastery can only occur if appropriate time allocation is given to develop this knowledge.

The research provided an initial insight into students' experiences and self-efficacy in the arts. However, the study was not without limitations. The small sample size limits the generalisability of the findings, particularly in the interviews. As the interviews were voluntary, it is also likely the findings are biased towards the arts. Further investigation into first-year students' self-efficacy based on prior arts experiences is required to determine the impact of the B.Ed primary course on increasing self-efficacy, by comparing data from first and fourth-year students. Additionally, more research with fourth-year students (or even graduate teachers) is required to determine how arts instruction can be improved within teacher-education courses. The arts research group is participating in ongoing research to address some of these issues and improve the tertiary arts experiences for their students.

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