Establishing the theoretical construct of pre-service teacher self-efficacy for arts education

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Abstract

Significant research has been conducted into the positive effects of arts education on social and intellectual development of students across the ages of 10-15 years. Teacher competence for teaching the arts however does not appear to be as positive. A worldwide trend suggests pre-service teachers exhibit low confidence and content knowledge for the teaching of the arts (Hennessy, Rolfe & Chedzoy, 2001; Russell Bowie, 2004). Teacher self-efficacy is still forming within the beginning years of teaching and once developed, is resistant to change (Bandura, 1997). During this beginning phase, teachers create their own self-knowledge through efficacy beliefs as they reflect on teaching. Subsequently, efficacy beliefs determine how environmental opportunities and impediments are perceived (Bandura, 2006). From this assumption, the self-efficacy beliefs of pre-service teachers are important for investigation for recognition of confirming and disconfirming experiences that shape this motivational construct. Research suggests that an understanding of teacher self-efficacy beliefs for arts education holds the key to improving the current problem of instigation (Oreck, 2004).

This paper will provide an exploratory investigation of the theoretical construct of pre-service teacher self-efficacy. Fifteen pre-service teachers completed an adapted questionnaire based on teacher self-efficacy beliefs for the arts and personal experiences associated with the arts. These results form the basis of exploration regarding the variances created by demographic characteristics, educational contexts and personal experiences.

The establishment and advancement of this theoretical understanding will provide guidance, planning and direction for beginning teacher support, teacher education and administration. It will provide greater understandings of how self-efficacy beliefs of teaching capabilities create powerful influences on the overall effectiveness of the teacher with students. Thus, it is possible to advance understandings of how pre-service teachers' regulate their own behaviour for teaching arts education through changes to their motivation, thought processes and actions.

Key words: arts education, teacher education, self efficacy.

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Arts Education in Australia

In Australia, arts education is a key learning area, endorsed by the *Hobart Declaration* (MCEETYA, 1988) and more recently in the *National Education and the Arts Statement* (MCEETYA, 2005). It consists of music, drama, dance, visual arts and media. Quality arts education requires highly skilled professional teachers to achieve quality education (Andrews, 2004). The responsibility of the generalist teacher to engage with artistic practice in their classroom is dependent on their own beliefs about school context, pressures of the curriculum and benefits of the arts for students. Confidence, motivation and self-knowledge also

inform a teachers' belief system. These beliefs operate as a key factor in a generative system of human competence (Bandura, 1997), leading to the assumption that they are powerful influences on the overall teachers' effectiveness with students.

Several enquiries have been made into the quality of arts education occurring in schools over the past 13 years. In 1995, the *Australian Senate Inquiry into Arts Education* (1995) investigated arts teacher education raining for generalist teachers, noting that the teaching of arts education in school was poor because of inadequate teacher training and a lack of confidence by generalist teachers to teach the arts. In the Senate's own words, teachers "created a strong impulse to marginalise the arts in their teaching" (1995, p. 49). The Inquiry recommended improvements to the monitoring of curriculum change, the implementation of professional development programmes and the need to increase the number of specialist teachers available to primary schools. Many of these suggested changes have not been implemented across Australia, with studies hereafter still reporting the low status of arts and music within the schooling curriculum (Stevens, 2000). In 2005, a *National Review of School Music Education* was conducted, reinforcing earlier findings from the Senate Inquiry. In particular, the review found a decline in hours given for generalist primary pre-service education courses for teaching music in schools (DEST, 2005). Previous research has shown that on average, pre-service teachers receive only 23 hours of music training in their entire teacher education (MCA, 2003). The Review (DEST, 2005, p. xvi) recommended that for improved music teacher education:

- The Australian Government should explore ways to encourage universities (and other providers of teacher education) to provide more time for music education for pre-service teachers.
- Universities and School of Education need to enhance or transform courses for generalist classroom teachers to ensure that there is dedicated time to music education and that

student teachers develop and demonstrate knowledge, understanding and skills in their own music making as well as teaching music.

- Graduation and beginning teachers need to demonstrate the currency and relevance of their knowledge, understanding, skills and values about music education.

The recommendations emphasise the association between quality music education and attracting and retaining teachers in Australian classrooms. Moreover, the quality of teaching that occurs in schools is directly attributed to the quality of preparation within teacher education courses (Carter, Carre & Bennett, 1993; Darling-Hammond, 2000; Temmerman, 1997).

In 2005, *The National Education and the Arts Statement* (2005) was released, designed to foster a culture of creativity and innovation in Australian schools. It acknowledged that an education rich in the arts maximised opportunities for learner engagement and innovative thinking, while promoting social harmony and broad cultural understandings. In particular, it acknowledged that arts experiences should be diverse, based on models of effective practice, and embedded form the early years through to graduation in order to unlock the creative potential of young people (MCEETYA, 2005). How this is to be achieved within schools however is unclear.

Theoretical overview

Teacher self-efficacy and task specificness

Bandura (1977) introduced self-efficacy as an assessment of one's capabilities to design a desired level of performance in a given endeavour. It is one of only a few conceptions of human control that describe a distinction between human competence and contingency, used as a future oriented judgement. These beliefs therefore create a platform for execution of actions. Teachers therefore bring cognitive production into being by the exercise of personal agency.

Teacher self-efficacy is defined as "a teacher's individual belief in their capability to perform specific teaching tasks as a specified level of quality in a given specified situation (Dellinger et al., 2007, p. 2). This definition is closer aligned Bandura's definition of perceived self-efficacy, creating the construct that teacher self-efficacy beliefs of capabilities creates powerful influences on the overall effectiveness of the teacher with students.

During the beginning phase of teaching, teacher self-efficacy is forming and once developed according to theory, is resistant to change (Bandura, 1997). Pre-service teachers create their own self-knowledge as they reflect on teaching dance, music, drama, visual arts and media. Self-efficacy beliefs therefore determine how teachers set goals, monitor their actions, anticipate outcomes and reflect on their personal efficacy when teaching.

According to self-efficacy theory, teachers who do not expect to be successful with certain students are likely to put forth less effort in preparation and delivery of instruction, and to give up easily at the first sign of difficulty, even if they know of strategies that could assist these students if applied. From this assumption, self-efficacy beliefs are self-fulfilling prophesies validating beliefs of capabilities. For example, self-efficacy beliefs are lowered if a teacher perceives their performance in teaching arts education a failure, contributing to the expectation that future performances teaching arts education will also fail. Teacher self-efficacy beliefs are raised if a teacher perceives their performance in teaching arts education a success, which then contributes to the expectations that future performances will also be proficient.

While teacher self-efficacy is considered situation specific (Bandura, 1997), it is less clear about the level of specificity of domains that is required. As such, "specificity of domains is considered one of the biggest issues that needs to be resolved for any cognitive or motivational theory that proposes domain specificity of constructs" (Pintrich & Schunk, 2002, p. 69). Some researchers have attempted to recognise the teaching context by exploring particular curriculum areas, with the perspective that teachers' self-efficacy is related to a subject's individual goals and strategies. Areas explored include science teacher efficacy (Riggs & Enochs, 1990), classroom management (Emmer & Hickman, 1990) and nutrition (Brenowitz & Tuttle, 2003). As yet, teacher self-efficacy has been explored within the context of arts education.

Self-efficacy in the beginning years of teaching (contextual factors and preliminary beginning teacher research)

As yet, limited research has explored the development of teacher self-efficacy that is formed during the beginning phase of teaching. Research suggests that personal teaching efficacy tends to increase during teacher education and student training (Hoy & Woolfolk, 1990; Wenner, 2001), but decrease during the end of teacher training to the end of the first year of teaching (Woolfolk Hoy, 2000). This may be caused by the removal of support given to teachers to develop efficacy during the beginning phase of teaching (Tschannen-Moran & Woolfolk Hoy, 2007).

Teachers' self-efficacy has been examined in relation to a number of school based variables, based on the postulation that self-efficacy beliefs are context specific. These variables include school context, collective efficacy, school and demographics. An understanding of these studies provides insight into teacher self-efficacy development and the contributing sources. It also provides evidence that beginning teachers' beliefs are malleable and once fully formed, resistant to change.

Demographic variables (such as race and gender) to do not appear to be systematically related to the self-efficacy beliefs for either beginning or career teachers (Tschannen-Moran & Woolfolk Hoy, 2007). This is commonly suspected, as there are no theoretical reasons for relationships between self-efficacy and demographics, except

the possibility of "vicarious experiences with similar models in the intended realm of teaching" (Tschannen-Moran & Woolfolk Hoy, 2007, p. 952). Moreover once self-efficacy beliefs are set after the beginning phase of teaching, it is resilient to any increases in years of experience. Thus, demographics were generally used as control factors in these research studies.

Conventional wisdom might assume that some schooling contexts are more difficult to teach in then others. As yet however, the contextual variables of school settings are unrelated to beginning and experienced teachers, with no difference in efficacy beliefs between school locations (Tschannen-Moran & Woolfolk Hoy, 2007). In relation to grade level, higher self-efficacy has been reported in the younger grades for experienced teachers, however no contribution were found for beginning teachers (Tschannen-Moran & Woolfolk Hoy, 2007). Tschannen-Moran and Woolfolk Hoy (2007) suggest this may be explained by

beginning teachers being more idealistic that experienced peers about being able to reach students regardless of age, that they perceived they had been better prepared to cope with the needs of older students and so were undaunted by the challenges they might face, or that the mix of hope and fear was similar for beginning teachers regardless of the size and age of the students taught. (p. 953)

There is a need for greater understanding about the kinds of context variables linked to a higher self-efficacy (Labone, 2004). Social cognitive theory suggests that personal factors (such as self-efficacy) and behaviours interact with the environment to influence each other through reciprocal determinisim. Reciprocal relationships between educational contexts, personal factors and self-efficacy require closer examination within the arts. This paper provides an exploratory investigation of the theoretical construct of pre-service teacher self-efficacy for arts education. It is part of a bigger study looking at beginning teacher self-efficacy. During

the initial stage of analysis, 15 pre-service teachers completed an adapted questionnaire based on teacher self-efficacy beliefs for the arts and personal experiences associated with the arts. These results form the basis of exploration regarding the variances created by demographic characteristics, educational contexts and personal experiences.

Hypotheses

Based on the literature and theory reviewed, the purpose of this study was to investigate and establish the theoretical construct of pre-service teacher self-efficacy for arts education. The study was designed to establish a level of pre-service teachers' self-efficacy for arts education, before exploring self-reported motivation of their engagement with teaching arts education. It is hypothesized that negative motivators towards the arts creates pre-service teacher beliefs to marginalize the arts in their teaching.

Methods

Teachers completed a questionnaire, designed to show key differences in personal experiences, motivation and confidence. Open-ended questions provided an in-depth understanding of complex motivational influences and frames of reference to be identified. They were adapted from the work of Oreck (2001) who explored generalist teachers in the United States, with the intention of enabling teachers to express their concerns and perceptions of arts education while making suggestions about their needs.

Data was analysed using an adapted version of Cavana et al.'s (2001) and adapted version of their 15 stages of content analysis to identify key themes and meaning. To ensure coding consistency, an instruction dictionary was created, allowing the research to also self-audit inferences and interpretations.

The participants were 15 pre-service teachers from the Graduate Diploma in Education at the University of Queensland. Participants were chosen

through convenience sampling. All students involved in the Graduate Diploma course were sent an email about possible involvement. Students who responded were sent a questionnaire to complete. Teachers in the sample were just completing their first practicum placement in either a middle school or a secondary school where the middle years were part of (years 8-10).

The sample consisted of 10 female and 5 male teachers (66%/33%), similar to the Australian ratio of 68.7% females/ 31.3% males. Some participants had prior experience in teaching English as a second language for language schools in Asia. Age ranged from 21 years through to 45+ years, with a mean in the range of 25-29 years.

Results

A content analysis was conducted on pre-service teacher self-reported motivators for arts education. This produced four major categories of student outcomes, school environment, self-issues and external factors. Examples of each of the categories have been presented in Table 1. These motivators are similar to those identified by Oreck (2001) of generalist teachers in the United States. Each of

Table 1 Sample of Responses for Motivators from the study.

	Motivation	Concern
	"My strongest current motivation to engage with the arts is…"	"I would be motivated more often to engage with the arts if…"
Student Outcomes	• The joy of seeing students being able to gain something from hands on activities that incorporates inquiry based learning • If it keeps students on task and lifts their motivation and enthusiasm for the concept being taught • It broadens children's cultural appreciation by exposing them to unfamiliar art forms • I don't want to limit students to textbook education that limits their learning abilities	• If it shows benefit for students • If I could see children being motivated and striving to do their best in the arts • Students are creative by nature and it will engage them, especially if they have little interest in other things • If the arts were not so competitive and focused on individual achievement • I do have to draw the line between engaging with learning and having fun.
School Environment	• The proper school environment and the true belief in the values of the middle years pedagogy. It's organisational change! The belief has to come from HODs and principals before it can be achieved.	• I could work in a school which has a middle years programme • There were joint efforts from departments to see if there can be some cross disciplinary expansion
Self Issues	• I would like to experience teaching all subject areas and different grades • I actually have a prejudice that arts education does not calculate cost/benefit in terms of quantitative measurement of output that is not subjective as I believe it is • If I feel it is received well by the students and the supervising teacher • It was important to my development at school and at uni[versity]	• I am able to draw the line between engaging, learning and fun • It is fun to teach for the teacher • I am shown how to do it
External	• Seeing middle years students engage with music at church	• Australia was not so focused on sport rather than the arts and it was not considered 'unmanly'

these categories could be seen as a contributor to intention of actions (personal agency) to teach arts education. For example, a current motivation suggested by one pre-service teacher that was considered within the category of 'student outcomes' was: "The joy of seeing students being able to gain something from hands on activities that incorporates inquiry based learning."

Discussion

This study recognised important beliefs about motivators and confidence that impacted on beliefs about engagement with the arts domain. These findings suggest that negative personal beliefs toward the arts and about the arts may create a strong tendency for teachers to marginalise the arts in their teaching.

Student outcomes

Pre-service teachers reported both strong beliefs to engage with the arts if they could see student enjoyment and learning. This was not unusual, however some pre-service teachers made it clear they did not want to draw the line between engaging and having fun. While some teachers found that arts may be useful for student outcomes with many enjoyable social and cognitive benefits, some were unconvinced that the arts were important within teaching time. This is similar to results found by Oreck (2001) of generalist teachers in the United States, who found that teachers were unconvinced that learning in the arts were a judicious use of teaching time. This may also be reflected by Russell-Bowie's (2004) assertion that arts education is often considered the frills subject, being the first to leave the timetable if time is short and the first to receive budget cuts (Winner & Hetland, 2000; Bresler & Thompson, 2002). Moreover, while pre-service teachers recognise the importance of arts education, their ability to execute the action to teach the arts may appear too daunting that it lowers levels of self-efficacy for arts education.

One particular pre-service teacher showed high self-efficacy to engage with the arts in their teaching. This pre-service teacher made it very clear that she wanted the best for all her students and did not want to limit students to textbook education. This is perhaps part of a bigger teaching philosophy by the teacher on learning experiences, with the pre-service teacher realising that not all subjects and learning needed to occur from a traditional style of textbook lesson. Of interest, this pre-service teacher believed they were highly confident in teaching the arts, and planned to become involved in some arts extra curricula activities at school.

Alternatively, one pre-service teacher showed low self-efficacy towards engaging with the arts in their teaching. He mentioned the arts being competitive by nature, and focused on individual achievement as a major concern towards their motivation to engage with arts in the classroom. This teacher had disclosed in their answers, even though they were not asked, negative experiences they had with arts specialist teachers in high school, who "appeared to concentrate on only a few students with talent and excluded all the rest" (Pre-service teacher 11, 2008). This teacher later confirmed that they would not teach arts education as they felt they did not have the content experience.

School environment

The school environment also appeared as a major contributor to levels of motivation for pre-service teachers. Pre-service teachers felt the only way they could be motivated to teach arts education was if they were in a supportive school environment that had either a supportive middle years programme, or cross disciplinary expansion through joint efforts between departments. Pre-service teachers wrote of how they needed such an environment if they were to undertake and execute the task of teaching arts education, because they felt it would be more accepted and valued by the entire school community. As one pre-service teacher mentioned, "it has to do with organisational change. The beliefs have to come from Heads of Departments and

Principals before it can be achieved" (pre-service teacher 8, 2008). This particular teacher was looking for a school with high collective efficacy, realising their personal self-efficacy was informed also by collective efficacy from the schooling context. Many of the ideal schools talked about by pre-service teachers were described as their ideal teaching environment, however they knew that findings such educational contexts would be rare.

Self issues

Pre-service teachers also spoke about individual beliefs of motivation for engaging with the arts. Some pre-service teachers encouraged to engage with the arts in their classroom spoke of their own enjoyment with the arts at school and in their current lives. Other teachers expressed a desire to experience teaching all subject areas and grades to gain a holistic understanding of child development. This suggests that these particular pre-service teachers were interested in engaging with different educational contexts to gain greater experience in teaching, perhaps leading to greater self-efficacy and personal fulfilment, suggesting relationships between personal factors and the environment, as suggested by Bandura (1997) through reciprocal determinism.

Not all pre-service teachers however were positive with self-issues. Some pre-service teachers admitted they had a prejudice toward the arts. As one pre-service teacher commented, "I actually have a prejudice that arts education does not calculate cost/benefit in terms of quantitative measurement of output that is not as subjective as a I believe it is" (pre-service teacher 2, 2008). Again, this pre-service teacher believed they would never teach arts education as he did not consider it important for the learning of all students. Rather, this pre-service teacher considered literacy and numeracy as vital for student learning. Pre-service teachers also raised concerns of not being shown how to engage with the arts, with a view that arts was for fun and not education.

External

Some pre-service teachers mentioned outside environments that influenced their beliefs about being motivated to engage with the arts in the classroom. These were largely based on observations of middle years students in various activities including church and private arts organisations. Pre-service teachers observed middle years students engaging and having fun while taking part in the arts. They felt that this may motivate them to then engage with similar forms of engagement with the arts in the classroom.

One pre-service teacher talked about external factors on a societal perspective, raising a problem with basic philosophical societal foundations of the importance of the arts. He believed that if Australia was not so focused on sport, he would be more motivated to engage with arts education in schools. This may be reflected by his own experiences with the often conflicting portrayal of the arts and sports in school as competing. Again, this may add further evidence to Russell-Bowie's (2004) assertion of arts education as the 'frills subject'.

From these categories, greater research into teacher self-efficacy beliefs for arts education is necessary. This study has offered a glimpse into the beliefs of some pre-service teachers, however greater research needs to survey teachers on a greater scale, with greater investigation of the sources of efficacy, relationships between contextual variables and exploring general motivation for teaching arts education.

Limitations of research

The main limitation of this research was all data collected was self-reported by self-selecting pre-service teachers. It was also collected by convenience sampling so it is not a true random sample of the population. It is possible that the pre-service teachers who volunteered for involvement in the study were more efficacious than other pre-service teachers for arts education. Qualitative data in the form of observations, interviews and journals

articles would have enriched the findings and understandings of the pre-service teachers.

Conclusion

The results of the present investigation into pre-service teacher beliefs for arts engagement is important for teacher education and schools. While most pre-service teachers have little formal arts education training within teacher education, they are often expected to teach arts subjects. This leads to many beginning teachers, arriving at school with little formal music education, and have negative attitudes and low self-esteem in relation to their ability to teach these subjects (Russell-Bowie, 1999). Results indicated that negative beliefs towards motivation for the arts may impact on future execution to engage with the arts in teaching. Some pre-service teachers felt that if they were to engage with the arts, they needed to be in an educational context that valued the arts.

Intervention programmes teaching arts education, may be productive in changing beliefs in relation to the arts. These however need to be created through an understanding of the four sources of self-efficacy. Positive learning experiences in music (mastery experiences for self-efficacy) have been found to be a significant factor in breaking down barriers, changing students' attitudes, lessening their anxiety, giving them confidence and new teaching ideas, and developing their self-esteem in relation to teaching each of the subjects in their classroom (Russell-Bowie, 1999). Greater exposure to different learning experiences may help develop and support higher self-efficacy for teaching arts education.

This research is part of a larger study looking at beginning teacher beliefs for arts education in the middle years. Further development and investigation in relation to each of the arts areas (visual arts, dance, drama, music and media) seeks to identify beginning teacher beliefs on their perceived competence for teaching arts in the middle years. This extended project will advance the understandings of how teachers' regulate their own behaviour for teaching the arts through changes to their motivation,

thought processes and actions. It is hoped that through more research, all students can have access to arts education in their education.

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