

0415

Arts Education and Academic Outcomes: A Large-Scale Study of School Students

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Background

Increasing demands on modern curriculum have resulted in less time for arts education programs (eg. music, drama, media, visual arts, dance; Gibson & Anderson, 2008). Questions are being posed about the potential advantages of arts education on students' motivation, engagement, and achievement. With the present increase in advocacy involving the arts and education (Gibson & Anderson, 2008), we seek to contribute to the evidence base which focuses on the academic benefits of in-school and out-of-school arts-related programs. Pioneering and rigorous research that can further determine the learning and motivational gains arising from participation in arts education will better inform practice and policy relating to arts education stipulations.

Research Questions

The overall research question is:

- To what extent does participation in arts education impact academic motivation, engagement, and achievement?

In order to answer this broad question, there are a number of specific research questions to be addressed, as follows:

- What is the in-school and out-of-school scale and scope of participation in arts education?
- What are the academic consequences of this participation in arts education?
- Do particular types or forms of arts education play a greater (or lesser) role in academic outcomes?
- Do these effects vary as a function of intensity or frequency of participation?
- Are there stages of school (primary, junior high, middle high, and senior high school) in which arts education is particularly influential in academic outcomes?
- Do changes in participation or engagement in arts education lead to changes in subsequent academic outcomes?

Methods

Methodology: The investigation utilises a large and representative sample, via survey-based methods. Study participants will be students in Australian primary and high schools. Primary school students will be in Years 5 and 6. High school students will be in Years 7 to 11. Data are collected from 10 primary schools and 5 high schools. The sample of schools is needed to gain representation of schools from urban and non-urban areas, independent and government/systematic Catholic, and single-sex and co-educational schools. Measures administered include items asking about students' participation in arts education, academic motivation, academic engagement, and academic achievement. Analyses will first focus on demonstrating the psychometric properties of the measures (eg. reliability and factor analysis) followed by an exploration of the effects of participation in arts education on academic outcomes (eg. path analysis and structural equation modelling).

Gaps in Arts Education Research: There appear to be two major research gaps in the arts education literature: (a) methodological problems used in previous research and (b) the dearth of research conducted thus far. **Methodological Gaps:** Qualitative and quantitative methods have been

utilised across arts education research including surveys, observations, focus groups and interviews. However, limitations with this research include small sample sizes, unreliable measures, and poor methodological processes. This is highlighted by Eisner who states, "we found that although there is much material published that claims the arts cause academic achievement scores to increase ... it is often difficult to know the basis upon which the claims are made" (1998, p. 52). This study seeks to redress this through quantitative work to investigate the effects of arts education on academic outcomes across large samples using measures that have been validated in prior psycho-educational research (eg. Martin, 2007, 2009). **Dearth of Research:** Relative to other curriculum areas (eg. mathematics), there is also a general lack of research into arts education, despite preliminary evidence suggesting the positive effects of arts education (Gibson & Anderson, 2008). For example, in Australia, the Australian Council for Educational Research (ACER) found four relevant Australian arts education studies, but these only focused only on music and drama (Gibson & Anderson, 2008). There is thus a need to consider a broad range of arts subjects (eg. dance, music, drama, media, visual arts) and their impact on academic outcomes.

Frame

Although a number of theoretical frames are addressed in the broader investigation, here we present one perspective on the issue of arts education - that relevant to extra- and co-curricular activity. There are three contentions regarding co- and extra-curricular activity. The first is the zero sum model suggesting that time spent in academic, arts-based, social or athletic activities is mutually exclusive (Marsh & Kleitman, 2002). This proposition would indicate that time engaged in arts education will result in the neglect of other activities and other subjects, hence be predicted to have a negative effect on academic outcomes. Second, counter to the zero sum model, is the developmental model which contends that co- and extra-curricular activities are "experiences that further the total development of the individual students" (Holland & Andre, 1987, p. 438). This argument suggests that engagement in arts education would lead to the holistic development of the student and develops skills in a range of domains, including the academic domain. Third, the identification/commitment model proposes that extracurricular school activities strengthen "school identification, involvement, and commitment in a way that enhances more narrowly defined academic outcomes as well as the non-academic outcomes emphasised in the developmental model" (Marsh & Kleitman, 1992, p. 471). The proposed study comprises measures that can directly test these three contentions regarding co- and extra-curricular activity as relevant to arts education.

Research findings

The data are currently being collected and will be reported at the September conference. We propose numerous yields as a result of the research. **Building the evidence base:** Innovative and rigorous research that can ascertain the learning and motivational gains arising from participation in arts education will better inform policy and practice relating to arts education provision. **Advantageous for many:** This research is not aimed solely at large 'mainstream' cohorts of students. For example, it has been proposed that disengaged, under-achieving, and/or at-risk students may derive particular benefits from co-curricular and curricular arts education (ACER, 2004). **Arts education as a significant means to achievement motivation and effective pedagogy:** This study, seeking to examine the role of arts education as a means to motivation, engagement, and achievement is a significant one. Arts education represents a valid learning form (Gibson & Anderson, 2008) and this study's explicit focus on teaching in arts education and its impact on motivation and achievement across the curriculum will contribute to a better understanding of pedagogy in arts education and potentially of pedagogy across the curriculum.