Our world is one dominated by change and evolution, now occurring more rapidly than at any other time in human history. As this pressing weight is put upon the shoulders of our society, the reality sets in that the certainty of our future is for the first time, in question. The first decade of the twenty-first century has been plagued with economic collapses, increased global tension and conflict, and increasingly more devastating environmental disasters; born of both the hands of man and nature. Poverty, hunger, and disease are as pervasive as ever, and human suffering and inequity remain by in large the global condition. The 'Human Experiment', as many scientific, anthropologic and philosophical minds title our existence on this planet, is coming to a precipice.

Canada's leading futurist Richard Worzel said, "Whenever you think about the future, no matter where you start, if you think about it long enough, you'll always wind up thinking about education."¹ Worzel is not alone in this statement, as many others will point to education as the means by which the problems facing the world can be solved. However, just as rapid as the world evolves and changes, so to do the problems the world presents. Because of this, the answers to these problems are becoming more intricate, more interdisciplinary, and most problematically, are slipping further away from our ability to solve them. During the information age of the twentieth century, many issues could simply be solved by strict linear and analytical approaches.² However, in the twenty-first century, where the fluidity of global issues is a constant and pervasive reality, there needs to be a new way of thinking and a new way of educating; one that employs artistry, empathy, and emotion.³ If we accept that such an assertion

¹ Michael Campbell, "Time to ask why the education system is failing us," *The Vancouver Sun*, September 8, 2007, http://www.canada.com/vancouversun/news/business/story.html?id=f7a29177-8666-42fd-acf6-c801bb5dfc79

² Linda Naiman, "The Intersection of Art and Business: A context for arts-based training and development in the workplace." *Creativity at Work*, 2010, http://www.creativityatwork.com/CWServices/arts-in-business-context.html

is true – that such an approach is necessary – then we need to include the Arts as a means to provide the influence for educating our society to deal with the problems of both today and tomorrow.

Advocates of Arts based and Arts infused education have long faced scepticism, challenges, and objections to their belief in the ability of the Arts to address the problems facing our society. These challenges are most commonly centered on the value of the Arts in education, the time investment they require, how their success can be measured, a misguided assumption of the necessity of talent, the monetary cost of implementing such an approach, and the wrongly presumed autonomy that the study of the arts require.⁴ While these objections have been problematic for advocates of the Arts in education, the most troubling question has been "in what ways do the Arts improve test results in other subjects?"

In an attempt to answer, several research projects have been conducted in which it has been observed that standardized test scores went up after and during the time in which students were exposed to Arts based or Arts infused education. However, these studies have been unable to provide the empirical evidence necessary to prove *causality* between the rise in standardized test scores and student involvement in Arts based or infused education. Therefore, at best only a correlation can be said to exist. Perhaps one of the most controversial of such studies was conducted in 2000 by *Project Zero*.

Project Zero is an educational research group at the Graduate School of Education at Harvard University who state their mission is to "understand and enhance learning, thinking, and creativity in the Arts, as well as humanistic and scientific disciplines, at the individual and

⁴ Jessica Hoffman Davis, Why Our Schools Need the Arts. (New York: Teachers College Press, 2008) p.78

institutional levels."⁵ In the 2000 research project in question, Two of Project Zero's senior research associates Ellen Winner and Lois Hetland concluded that Arts classes do not improve students' overall academic performance. The controversy did not come from an undesired result, but rather from the oversight many other Arts advocates accused Winner and Hetland of making in their research; namely, excluding and failing to mention some of the beneficial effects of Arts classes that their research had revealed.⁶ As advocates for the Arts in education, Hetland and Winner fought back accusations of oversight by expanding on their denunciation of findings that supported the claim that the Arts actually do improve test scores in other subject areas.

In an article written for the 2002 *Arts Education Policy Review*, titled "*Beyond the Evidence Given: A Critical Commentary on Critical Link*", Hetland and Winner clarified that their earlier criticism of studies showing a link between the Arts and improved test scores was meant moreover as "a cautionary to the casual reader."⁷ They expressed their concern over those who might wrongfully be led to believe that "a small dose of the arts is all that is needed to improve students' thinking and social skills, school retention, and academic self-concept" by reiterating that "such a conclusion is simply not scientifically based" and therefore should not be made.⁸

But while the researchers scientifically disproved the assertions made by others that there was indeed a causal connection between the Arts and improved test scores, they redirected the conversation on the benefits of the Arts in a more productive direction and began to focus their

⁵ Project Zero: Harvard Graduate School of Education Homepage, Accessed November 28th 2010, http://www.pz.harvard.edu/

⁶ Robin Pogrebin, "Book Tackles Old Debate: Role of Art in Schools," *New York Times*, August 4, 2007, http://www.nytimes.com/2007/08/04/arts/design/04stud.html?_r=2

⁷ Ellen Winner and Lois Hetland, "Beyond the Evidence Given: A Critical Commentary on Critical Links." *Arts Education Policy Review*, November 2002, http://www.pz.harvard.edu/Research/Reap/REAPCritLinkResp.htm

argument on the specific skills the Arts develop. Hetland and Winner explained that while students who are engaged in the Arts learn the technical skills associated with their craft, they are "among other things... being helped to reflect about their work; to evaluate their work and that made by others; to learn from their mistakes; and to see in new ways."⁹ Their conversation followed many other advocates for the Arts in education, suggesting that perhaps even more necessary than proving causality between improved test scores and involvement in the Arts, is the need to recognize the independent values that the Arts bring to education – that the Arts need to be seen less for what they can offer other subjects, and more for the unique and specific skills and values they have to offer. By acknowledging their value, advocates suggest that the Arts no longer need to be seen as the "handmaidens to reading, writing, and arithmetic."¹⁰ And, by acknowledging the independent values and skills the Arts bring to education, more justification for their inclusion can be established than from the so-far unsubstantiated attempts in proving how they benefit and increase performance in other subject areas.

In her book titled, *Why Our Schools Need the Arts*, Jessica Hoffman Davis identifies ten unique and invaluable skills that educating through the Arts develops, and in doing so, greatly strengthens the argument of the necessity of the Arts in education. Hoffman Davis suggests counter arguments to the classical objections of value, time, measurement, talent, expertise, money, and autonomy, but more importantly, she identifies the specific skills and values educating through the Arts develops. Though she does not explicitly identify them as so, these skills and values are the ways in which our educational system can transform the way our society approaches the problems it faces. Moreover, since the Arts have "an inherent capacity to

⁹ Winner and Hetland, "Beyond the Evidence Given."

¹⁰ Ibid.

complicate and deepen our experience in the world and with each other", they serve as an excellent framework for solving the world's complex and interconnected problems.¹¹

The first unique and valuable element that the incorporation of the Arts in education develops centers on the physical tangibility, natural to the Arts. As students "physically create something out of their own invention" something that "did not exist before", they are invited to further explore their own ideas, and to think beyond what they have been told is so.¹² They experience as no other subject will allow "the range and importance of their own inquiry and their own ability to assess and direct that process."¹³ Imagination is encouraged rather than suppressed as the creation of a tangible product leads students to identify themselves as capable of evoking change; something they experience as they manipulate a drawing, painting, or dance to how they see best. This practice is an important onset for the kind of thinking that will empower students to apply their knowledge in places they might otherwise feel they are incapable of making a difference.

Many of the problems facing the world today require the emotional and empathetic responses that the current educational system places little if any emphasis on. Perhaps the best example of this is found in the Humanities – Social Studies and English Language Arts – which center on the human experience. Despite this, objectivity and the 'concrete elements' of the Humanities: name, date, definition, place and time often overshadow the emotions that contribute to truly understanding the subject matter. The Arts are also inherently a study of the human experience; however they provide students with an opportunity to recognize and express

¹¹ William J. Moody, ed., *Artistic Intelligences: Implications for Education*. (New York: Teachers' College Press, 1991) p.149

¹² Hoffman Davis, Why Our Schools Need the Arts. p. 51

¹³ Ibid. p.74

their own feelings – to acknowledge how they feel – but also help them to "appreciate, be aware of, and be attentive to the emotions of others."¹⁴ Students acquire this ability through the Arts in several ways. One example might be how students express emotion visually through painting, drawing, or kinaesthetic performance, like a dance or drama production. Another might be by asking students to view a piece of art, and then respond to the emotions they feel the work expresses, or what emotions the artist must have been trying to convey. By encouraging students to express emotion, they become more aware of how emotion can influence opinion and perception. Consequently, as students become more self-aware, they are able to empathize with the emotions of others. Such an understanding is the underpinning for making sense of the world around us, and "through this global understanding is born a sense of oneness within the human experience."¹⁵

There are indeed concrete facts about the world in which we live; Scientific laws and theories, and Mathematical principles which explain why certain phenomenon occur. But the world is not made up solely of singular facts; it is a conglomeration of difference, diversity, subjectivity, and interpretation. Yet despite this, we educate as if the world can simply be understood by reciting the words and discoveries of others. We devalue our own interpretations as a result of being educated under a system heavily reliant on objectivity, that reduces the demonstration of knowledge to yes or no and true or false. The reality is that the world is not simply black and white; it is infinite shades of grey. Our greatest insight comes from looking beyond the information and our greatest successes from how we use that insight. Hoffman Davis states, "We learn from open questions that generate new and better questions, not just from facts

¹⁴ Hoffman Davis, Why Our Schools Need the Arts. p.58

¹⁵ Moody, Artistic Intelligences. p.50

that admit no variation and suggest a one dimensional truth."¹⁶ Because of the ambiguous nature of art, students who learn under Arts based or Arts infused curriculum are able to address the "blurry boundaries" between right and wrong; the place where imagination can live.¹⁷ This exposes students to the reality that there is often more than one right answer or solution to any given problem. Perhaps most importantly, this kind of thinking teaches students that there is value in their opinion, even when it differs from what others believe. And further, students "learn to be aware of, interested in, and respectful of different ways of making sense of the world."¹⁸

The evaluation process of Arts based or Arts infused education also leads to the acquisition of some invaluable skills that traditional education might not develop. When students involved in the Arts sit down to critique or evaluate the work of a professional artist, themselves, or that of a peer, the process can be said to be "much more intimate than in other subjects."¹⁹ Rather than exclusively focusing on the results or outcome of a piece of work, students come to consider and value the intent behind the outcome. Learning to value intention is a major skill necessary for inquiry based learning and self-assessment; currently popular pedagogical approaches to education. The incorporation of Arts based or Arts infused learning – where the evaluation process is comprised of open-ended questions – can serve as the means by which to create inquiry based learning in any educational setting.²⁰ Further, open-ended questions help expose the connection of issues across disciplines, and in doing so, students are educated to identify the societal-interconnectedness that exists within many of the issues that face us today.

¹⁸ Ibid. p.65

¹⁶ Hoffman Davis, Why Our Schools Need the Arts. p.13

¹⁷ Ibid. p.64

¹⁹ Ibid. p.71

²⁰ Ibid. p.71

Finally, educating through the Arts encourages student engagement and a sense of responsibility for what students create – both essential to education, regardless of what pedagogical approach is being taken. Importantly, these values extend beyond the classroom and into the real world in the form of societal participation and social responsibility. Davis Hoffman identifies these skills as contributory to understanding the connection that exists between human beings – "transcendent across both time and place, poignantly and uniquely expressed through art."²¹ The ability of the Arts to expose otherwise unseen connections is important because these connections are where students find the answers to why they are learning what they are learning, and discover the relationship between the material and the world they live in. Coupled with the other unique and invaluable skills educating through the Arts develop: Imagination and a sense of Agency, Expression and Empathy, Interpretation and Respect, and Inquiry and Reflection, the ability of the Arts to bring these skills together – to connect them to the world – is where the greatest strength and justification for their inclusion lies.

As a public institution, the education system must not only reflect the society in which it exists, but also aim to serve its benefit as well. As we look back on the evolution of the educational system as a whole in North America over the past century, it is evident how it fulfilled this duty. In the industrial age, a time where manufacturing and production were the keys to global success and societal advancement, the Fredrick Taylor Model of educating students in a similar fashion to serve these objectives was not only appropriate, but necessary as well. The acquisition of applied skills was more important than creativity. But we obviously do not live in such a time any more, and as the base of our knowledge and society advances, so to should the expectations of our educational system.

²¹ Hoffman Davis, Why Our Schools Need the Arts. p.75

Leaders in all factions of society are starting to recognize the need for different ways of approaching the increasingly complex issues they face; realizing the Arts and education as a means to bring about such change. Environmentalists who often use emotional and aesthetic appeals to convey their message have long recognized the benefit of engaging the natural world through the Arts and education. Ph.D. Young Imm Kang Song of the Creative Arts in Learning Division in the Graduate School of Arts and Social Sciences at Lesley University in Cambridge, Mass. has suggested that through the integration of works by environmental artists, "education is given depth and excitement, contemplative and insightful thought is encouraged, and environmental awareness is fostered."²² Medical professionals have asserted that what our educational system is lacking is the development of the "societally-connected thinking" necessary to address, amongst other things, the burgeoning medical crisis associated with the expansion of the global population by 1.35 billion people every decade.²³

The Economy is also starting to reflect the increasing importance of creativity and innovation in North American business models. India and China's ability to drastically reduce the cost of production and manufacturing has lead to a decreased necessity for the kinds of skills the education system in North America has prepared people with. The 2004 February edition of the *Harvard Business Review* has expanded by suggesting that "differentiation in an overstocked, materially abundant marketplace... [*and*]... the economic future of an organization depend [*on*]

²²Young Imm Kang Song, "Art in Nature and Schools: Nils-Udo." *The Journal of Aesthetic Education*, Volume 44, Number 3, Fall 2010, http://muse.jhu.edu.ezproxy.lib.ucalgary.ca/journals/the_journal_of_aesthetic_education /v044/44.3.song.html

²³ Donald B. Louria, MD; Howard F. Didsbury, Jr, PhD; and Fred Ellerbusch, MPH, PE, DEE, "Our Education System May Be Failing Young People and Our Society; What We Need Is Societally-Connected Thinking." *Healthful Life Project*, University of Medicine & Dentistry of New Jersey, http://njms2.umdnj.edu/hwmedweb/ archives/education_archive.htm

the] ability to create wealth by fostering innovation, creativity and entrepreneurship."²⁴ Simply put, as companies with the goal of remaining global competitors increasingly take more work overseas (*where it can be done at a fraction of the cost it would require here*) the ability to remain influential in the global market place requires our education systems to develop a more creative and innovative society. "Economic adversity" William J Moody explains, "has created an imperative for arts education as a force that fosters cross-cultural understanding... [*and*]... a work force that can carry us through the 21st century."²⁵

Conversations on the value of the Arts in education have for too long been focused on what the Arts can offer other subjects. However, thanks to identification of the unique skills and values that the Arts develop, the true value of Arts based or infused education can realized. Educating through the Arts allow for emotion and empathy, encourages imagination, fosters respect for multiple perspectives, and restores the long lost value in personal interpretation enabling us to find meaning where meaning might otherwise not be found, and invites us to participate across circumstance, culture, and time in the ongoing *human conversation*.²⁶ As the world's problems become increasingly more complicated, interdisciplinary, and demanding of swift, informed, considerate and decisive action, the incorporation of Arts based or Arts infused education must be seen as one of the ways in which we can prepare future generations to deal with this inescapable reality. The answers to all of the world's woes don't reside exclusively within the realm of the Arts, but they do require the kind of thinking developed within an education system that recognizes the intrinsic value of the Arts, and what skills they can prepare students to answer with.

²⁴ Naiman, "The Intersection of Art and Business"

²⁵ Moody, Artistic Intelligences. p.47

²⁶ Hoffman Davis, Why Our Schools Need the Arts. p.48